Inflation Expectations and Firms' Decisions in High Inflation: Evidence from a Randomized Control Trial*

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Abstract

We conducted a survey of Turkish firms, using randomized treatments to provide varied information about inflation in a high-inflation environment. By matching the survey data with administrative firm-level data on exports, employment, credit, and foreign exchange transactions, we explore the impact of exogenous variations in inflation expectations on firms' behavior, borrowing decisions, and expectations. Our findings reveal three key insights. First, inflation expectations significantly impact firms' expected prices, wages, and unit costs, with pass-through rates reaching as high as 60% in a high-inflation environment—demonstrating a much stronger connection compared to low-inflation settings. Second, firms with heightened inflation expectations substantially increase their credit demand, shifting from short-term to long-term loans through the refinancing channel, with a significantly reduced cost. Specifically, a 1 percentage point increase in inflation expectations leads to a 3 percent rise in credit usage, accompanied by a decline in borrowing costs. Additionally, firms with elevated inflation expectations are more likely to raise their foreign currency purchases while decreasing the share of FX-denominated credit on their liability side. Third, firms facing higher inflation expectations tend to reduce employment and sales, reflecting a stagflationary outlook. Despite the negative impact on sales and employment, total credit usage increases, driven by long-term borrowing as firms seek to lock in lower long-term rates in anticipation of further inflation, highlighting the importance of the refinancing channel.

Keywords: Expectations, Firms, RCT, High Inflation, Macroeconomics

JEL Classification: E12; E24; E31; E52

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1 Introduction

Inflation expectations are central to macroeconomic dynamics, fundamentally shaping outcomes through their influence on price-setting, wage negotiations, investment, financing decisions, and more.[1] Consequently, understanding the determinants of firms' inflation expectations and their subsequent impact on business behavior is a critical area of economic research. Despite growing attention, empirical evidence remains limited, particularly regarding how these mechanisms operate in the context of high and volatile inflation environments.

This paper is the first to apply a randomized control trial (RCT) framework to investigate how inflation expectations affect firms' pricing, wage-setting, financing, and employment decisions in a high-inflation setting, where the annual inflation rate exceeds 70%.[2] Our study uniquely leverages a combination of a firm-level RCT, rich administrative datasets, and an extreme inflationary environment to provide clean causal evidence on how exogenous changes in inflation expectations influence firms' real and financial decision-making, summarized in seven key facts:

Fact 1 *In a high-inflation setting, information treatments effectively generate exogenous variation in inflation expectations if the setting is also volatile.*

Fact 2 *The pass-through from inflation expectations to firms' own wage, cost, and price expectations is nearly 60%.*

Fact 3 *Higher inflation expectations make firms more pessimistic about both their own future performance and the aggregate economic outlook.*

Fact 4 *Firms expecting higher inflation increase their demand for credit and strategically shift its structure, seeking more long-term financing while reducing short-term debt.*

Fact 5 *Firms with higher inflation expectations de-dollarize their liabilities by increasing borrowing in the local currency and reducing foreign currency debt.*

Fact 6 *Firms with higher inflation expectations dollarize their assets by increasing their holdings*

[1] Inflation expectations serve as a critical channel in various economic frameworks, including the Phillips Curve, the Euler equation, Tobin's Q, asset pricing models, and the Taylor Rule.

[2] The RCT was conducted in May 2024, when the annual inflation rate was 75%.

of foreign currency.

Fact 7 *Firms with higher inflation expectations decrease employment and moderate sales activity while increasing inventory holdings in subsequent months.*

This setting offers a unique advantage for causal identification. Studying firm behavior in this environment is particularly insightful because high and volatile inflation leads to a breakdown of the nominal anchor and results in highly dispersed and unanchored firm expectations, a state rarely observed or experimentally manipulated in low-inflation economies. In such a high-stakes environment, expectations are not marginal factors but are central to firms' planning and decision-making. Firms are more informative about the role of inflation by experience, inflation expectations are inherently more relevant and become one of the primary drivers of firms' decision-making process such that changes in expectations translate into observable behavioral responses. From the firms' perspective, deviating far from accurate inflation expectations can be costly, as a high and volatile inflation environment makes it much easier to stray from optimal choices. The cost of inattention and the cost of being wrong about future inflation are substantial (Pfäuti, 2023; Bracha and Tang, 2024), compelling firms to pay close attention and making them more likely to act decisively upon changes in their expectations. Moreover, the wide dispersion of expectations allows our information treatments to induce substantial exogenous variation, enabling clean identification of the effects of expectation shifts on a range of firm outcomes.

Yet, while firms exhibit heightened attention and typically know past inflation well, the volatility of underlying trend inflation is so high that external information can still meaningfully shift their dispersed beliefs. This suggests that information rigidities operate differently under volatile inflation—even when attention is elevated—which allows us to capture the real effects of expectation changes. Our information treatments can generate exogenous shifts in firms' inflation expectations, enabling us to causally analyze how these expectations influence key economic decisions. This study therefore addresses two core questions: How does firm behavior change when the nominal anchor is lost and expectations become unanchored? And how are the transmission channels linking expectations to real and financial decisions altered under high inflation?

In this empirical setup, we utilize data from a survey that we designed and conducted as an RCT, using the CBRT's firm base in May 2024. This survey sampled over 1,300 representative manufacturing firms, with information treatments providing forecasts from market professionals and central bank projections for three distinct periods, delivered to the treated groups. Subsequently, in the same survey we collected firms' economic beliefs, including inflation expectations and quantitative forecasts of their future performance.[3] This design allows us to evaluate how firms respond to publicly available information and assess their attentiveness to various economic news in a high-inflation environment.

To capture firms' dynamic responses to the treatment, we match this survey with the Business Tendency Survey (BTS), which has been collecting monthly data from 1,800 to 2,000 representative manufacturing firms since 2009.[4] Linking responses from the RCT with BTS data enables us to track the evolution of firms' beliefs about past, present, and future economic conditions.[5] More importantly, we match firms' survey responses with administrative data sets, such as balance sheet data, foreign currency purchase records, and credit registry data. This enables us to assess the causal impact of exogenous changes in firms' inflation expectations—induced by the treatments—on various firm-level outcomes such as foreign currency purchases, loan amounts and costs, as well as decisions regarding wages, employment, sales, and purchases.[6] Put simply, we can track post-treatment effects on realized outcomes in the subsequent months, in addition to analyzing firm beliefs and self-reports in the BTS. Finally, the panel structure of the administrative data allows us to examine whether treatment effects persist or fade in the following months.

The study highlights seven key findings. First, we find that information treatments based on publicly available data significantly influence firms' inflation expectations. When firms' expecta-

[3] We analyze the determinants of these expectations using a comprehensive set of firm-level controls.

[4] The survey covers administratively registered firms in the Turkish manufacturing sector, with broad sectoral representation and a high response rate, minimizing attrition bias. The RCT survey was administered to the same sample pool as the BTS, achieving a response rate of 65%.

[5] Our survey is quantitatively focused, unlike many surveys that use qualitative questions, which makes it challenging to extract precise expectations (Bachmann et al. (2013); Bachmann and Elstner (2015)).

[6] Matching RCT survey settings with administrative datasets to analyze dynamic impacts is exceptionally rare (Ropele et al., 2022; Delgado et al., 2024); this paper is among the few that accomplish this.

tions are substantially higher than professional forecasts and central bank projections, highlighting these forecasts leads to a downward adjustment in firms' expectations, on average. Although firms are already informed about past inflation, they still learn from the public information provided to them. However, we also observe a significant increase in expectations for many firms, indicating that the analysis can capture the linear impact of changes in both directions.[7] Second, we find that firms with higher (lower) inflation expectations tend to increase (decrease) their expectations regarding wages, unit costs, and their own prices, with pass-through rates of 0.58, 0.53, and 0.55, respectively. We show, using a model, that pass-through rates can be high when changes in inflation expectations are persistent, which is more likely in high-inflation environments. Third, heightened (or reduced) inflation expectations also make firms more pessimistic (or optimistic) about not only aggregate economic activity but also their own firm outlook, with a stronger effect observed for the former. Fourth, we show that firms with elevated inflation expectations are more likely to increase their borrowing, locking in lower borrowing costs through refinancing: a 1 percentage point (pp) increase in inflation expectations leads to a 3 percent increase in credit usage, accompanied by a decrease in borrowing costs of approximately 4 basis points, driven by a compositional shift in liabilities. This highlights the "locking-in" motivation: firms expecting higher inflation are more likely to increase their borrowing, securing current rates on long-term credit by refinancing from short- to long-term financing, thereby underscoring the refinancing channel (Ropele et al., 2022). In the opposite direction, firms with lowered inflation expectations reduce their total borrowing because they perceive real borrowing costs to be higher. These firms tend to shift away from long-term credit, believing that current rates are too high given their muted inflation outlook. As a result, the share of short-term borrowing increases, leading to a rise in average borrowing costs.[8] Fifth, firms with higher inflation expectations increase their demand for lira-denominated credit and reduce FX-denominated borrowing, as they anticipate that a likely depreciation will raise the cost of FX borrowing while eroding the real value

[7] Although many firms decrease their expectations, nearly 40% of treated firms increase their expectations.

[8] In 2024, the cost of long-term financing is, on average, 4 pp lower than that of short-term financing in Türkiye, due to downward sloping yield curve.

of nominal lira liabilities. This results in a higher share of lira-denominated liabilities—evidence of liability-side dedollarization. Sixth, firms with higher inflation expectations significantly increase their foreign currency purchases while reducing foreign currency sales in the FX market, indicating a hedging motive against domestic inflation and increased asset-side dollarization. Finally, the impact extends to real economic activity. Firms that revise their inflation expectations upward become more pessimistic, reduce sales and employment, and simultaneously increase purchases—suggesting a motive to accumulate inventory ahead of anticipated price increases. In contrast, firms that lower their inflation expectations exhibit greater optimism and subsequently experience significant increases in realized sales and employment in the post-treatment months. Although sales rise, these firms reduce their purchases, implying a diminished incentive to accumulate inventory due to their lower inflation expectations compared to the control group.

Overall, this information RCT framework enables us to explore the causal relationship between inflation expectations and firms' economic decisions in a high-inflation environment, providing valuable insights into how expectations shape business behavior in volatile economic conditions. Section-2 provides the literature review. Section-3 outlines the data and provides key descriptive statistics. Section-4 discusses the impact of the treatments on firms' inflation expectations. Section-5 examines how the exogenous variation in inflation expectations influences firms' decisions related to sales, employment, wages, credit usage, and foreign currency purchases, as well as their expectations on wages, sales, and unit costs. Finally, Section-7 concludes.

2 Literature Review

Inflation expectations play a crucial role in shaping firms' decisions and outlooks. However, estimating their causal impact is challenging due to endogeneity issues. Particularly on the firms' side, the lack of high-quality firm-level surveys limits the studies analyzing the impact of expec-

tations on firm behavior.[9] Gennaioli et al. (2016) document that CFOs' expectations of earnings growth significantly explain both firms' investment plans and their realized investments. Boneva et al. (2016) study the impact of inflation expectations on firms' price-setting behavior. Coibion et al. (2018) show that firms update their beliefs in line with Bayesian models and significantly revise their expectations upon receiving publicly available information on inflation. These expectation shifts, induced by treatments, can lead to substantial changes in firm decisions. For example, Coibion et al. (2020b) demonstrate that firms with higher inflation expectations tend to implement more aggressive price increases, increase credit demand, while simultaneously decreasing employment and investment. Kumar et al. (2023) show that firms with heightened uncertainty about macroeconomic expectations decrease prices, employment, sales, and investment. Ropele et al. (2022) document that heightened inflation expectations have a significant impact on firms' borrowing decisions, leading them to shift their financing from long-term loans with lower interest rates to short-term loans with higher rates. Recently, the literature has explored the pass-through rates of inflation expectations to firms' own selling prices and wages. Rosolia (2024) and Coibion et al. (2018) estimate the pass-through of inflation expectations to firms' own prices to be close to zero, whereas Baumann et al. (2024) estimate it at 30%. Andrade et al. (2022) document the impact of aggregate inflation expectations on firms' own selling prices dynamically and the pass-through rate is estimated around 25%. Savignac et al. (2024) found that firms' inflation expectations do not significantly affect their wage expectations in an RCT setting. Additionally, Hajdini et al. (2023), Buchheim et al. (2024), Baumann et al. (2024) and Abberger et al. (2024) show that the pass-through of inflation expectations to wage expectations is moderate, less than 0.30%.[10]

However, most of these studies focus on stable inflation environments, where firms' decision-

[9] For studies on the household side, see (Bachmann et al., 2015; Ichiue and Nishiguchi, 2015; D'Acunto et al., 2016; Binder, 2017b; Duca-Radu et al., 2021; Dräger and Nghiem, 2021; Binder and Brunet, 2022; Coibion et al., 2023; Burke and Ozdagli, 2023).

[10] There are also studies on the effectiveness of policy communication tools. Binder (2017a); Enders et al. (2019); Coibion et al. (2022); Ehrmann et al. (2023); Di Pace et al. (2024) provide evidence that communicating key elements of monetary policy can enhance its perceived credibility and help anchor expectations. For a comprehensive literature review, see D'Acunto et al. (2024).

making processes are relatively more predictable. In contrast, firm behavior in high-inflation environments can change significantly. For example, Alvarez et al. (2019) explore how firms in Argentina—a country with a history of elevated inflation—adjust their prices more frequently and become less responsive to monetary policy shocks under such conditions. Yet, evidence from high and volatile inflation settings remains limited.

In this regard, our contribution is threefold. First, we document the determinants of inflation expectations in a high-inflation environment, showing that small, young, and highly leveraged firms tend to hold higher inflation expectations than large, established, and less leveraged firms. Second, we demonstrate that information treatments can effectively shift firms' expectations, even though their prior beliefs are relatively strong due to heightened attentiveness in such an environment. This highlights the potential for information interventions to be impactful in volatile contexts. Third, and most importantly, we analyze the causal impact of inflation expectations on firms' decisions regarding sales, employment, borrowing, and foreign currency holdings, as well as their forward-looking beliefs, to assess the extent of pass-through. We find that the pass-through from aggregate inflation expectations to wage and price expectations is quite high, reaching 60%, which contrasts with evidence from low-inflation environments. Additionally, we show that an exogenous increase in inflation expectations leads to a rise in credit demand but a decline in sales and employment. The rise in credit demand is driven by firms' preference for long-term credit in case of heightened inflation expectations, as they aim to lock in current interest rates over a longer period, anticipating that the real value of debt will erode with higher inflation. These findings are partly consistent with evidence from low-inflation economies (Coibion et al., 2020b; Ropele et al., 2022), although the underlying economic context differs markedly. Nevertheless, important differences emerge, which we elaborate on in the following sections. Our findings provide novel insights into firms' behavior in high-inflation environments.

3 Data Description and Conducting the Survey

3.1 Survey Design

We design our RCT survey in line with the Business Tendency Survey (BTS), which is a unique firm-level data, administered by the CBRT. The BTS collects data through monthly surveys of a representative sample of 1,800 to 2,200 manufacturing firms.[11] The regular survey employs a "check-box" format, prompting firms to provide their general business expectations, as well as their projections and actual outcomes for various firm-specific metrics, including capacity utilization, orders, and inventories. Firms indicate whether each economic indicator has increased, decreased, or remained unchanged over the past three months and share their expectations for these indicators over the next three months. Additionally, the survey requests firms to provide their annual inflation expectations in numerical terms for the end of the upcoming twelve-month period. The dataset covers the period from January 2009 to September 2024.

Following the implementation of the May 2024 BTS, we initiated our randomized control trial (RCT) with these firms just two days later, allowing a seven-day window for survey completion while emphasizing that participation was voluntary.[12] As a result, we received responses from 1,200 firms and the descriptive statistics are documented in Table-1. The survey's administration by the CBRT ensures its reliability, and the sample is representative of the entire manufacturing sector. Respondents are divided into five random sub-groups, each receiving different information treatments, alongside a control group that does not receive any additional information. The treatments consist of publicly available information, focusing on forecasts from professionals and the CBRT. Detailed descriptions of the information treatments are provided in the next section. The primary objective of this approach is to generate exogenous variation in inflation expectations, enabling us to analyze the causal impact of these expectations on relevant economic outcomes. Additionally, examining the relative effectiveness of various types of information allows

[11] Although the BTS does not collect detailed demographic information about respondents, a recent survey conducted by the CBRT indicates that 80% of the respondents are managers or C-suite executives.

[12] The response rate was nearly 65%.

for insights into the efficacy of different communication strategies.

In the survey, firms are asked to provide their distribution of inflation expectations for the next 12 months. Respondents indicate their best estimate, as well as optimistic and pessimistic forecasts. Using these point forecasts, we can fit a triangular distribution to quantify the post-treatment mean[13] and uncertainty regarding inflation (Kumar et al., 2023; Coibion et al., 2024).[14] Furthermore, post-treatment questions are designed to assess how the information treatments influenced respondents' expectations and plans, relative to the untreated control group. Additionally, since the dataset can be matched with various administrative datasets, we are able to incorporate realized outcome variables—such as credit usage, borrowing costs, foreign currency purchases, employment, and sales—as post-treatment variables in the months following the treatment.

The mean inflation expectation is 58%, while the real (domestic) sale growth expectation is 4.4% (see Table-1). Moreover, expectations are highly dispersed: the 10th percentile expects 28.9% inflation, while the 90th percentile expects 89.4% inflation for the next 12 months. Similarly, for sale growth expectations, the 10th percentile expects -15.6%, and the 90th percentile expects 36.0%. Additionally, we asked firms about their perceived inflation rate for the past 12 months, which averaged 75.8%, nearly the same as the official rate of 75%, indicating that they are well-informed about past inflation.[15] Overall, firms' inflation expectations are significantly higher than professional forecasts (35%) but considerably lower than households' inflation expectations (78%). Figure-1 shows how firms' expectations differ from those of households and professionals. The firms' expectations are not only dispersed regarding aggregate inflation but regarding their

[13]Throughout the paper, we use expected inflation as the mean of the triangular distribution, which is calculated as the average of the three point forecasts provided. Midpoint (best) estimates are used for robustness checks, as presented in Appendix-G.

[14]These distributional questions allow us to gauge the uncertainty surrounding their forecasts. However, since these distributional questions are not included in the BTS data, we cannot observe firms' priors concerning the second moment of inflation expectations.

[15]This finding contrasts with evidence from low-inflation environments, where firm managers tend to be less knowledgeable about recent aggregate inflation and monetary policy, as shown in Candia et al. (2024). In high-inflation settings, however, increased attention to inflation may lead to greater awareness, as suggested by Korenok et al. (2022) and Pfauti (2024). See Pfajfar and Roberts (2022) to see how attention changes the elasticity of inflation to economic conditions.

own sales growth expectations as well. This high degree of cross-sectional variation in the data allows for a clean identification of the effects of the information treatments.

Before introducing the RCT setting, we first analyze the determinants of inflation expectations. Specifically, we regress prior inflation expectations on a range of firm characteristics, including size, sales, credit usage, exporter status, sector, and the firm's location.[16] We then assess the extent to which each factor contributes to the variation in inflation expectations. Table-C1 shows that firm size, age, leverage ratio, and future economic expectations are significant determinants of inflation expectations.[17] On average, larger, older, and exporting firms tend to have lower inflation expectations. Higher leverage is associated with higher inflation expectations, possibly indicating that firms with elevated expectations are more likely to increase debt, anticipating that inflation will erode the real value of their liabilities.[18] There is also a significant association between economic expectations and inflation expectations: firms that are more optimistic about overall economic activity tend to have lower inflation expectations, reflecting a stagflationary perspective of firms. Similarly, firms' expectations for their own production volume growth are negatively related to higher inflation expectations. Lastly, inflation expectations are positively correlated with nominal variables, such as firms' own sales price and unit cost expectations. We provide causal evidence for the relationship between optimism/pessimism and inflation in Section-5.

3.2 Balance Sheet, Credit Registry, Employment, Sales and Foreign Exchange Transactions Data

We utilize a variety of administrative datasets in addition to the BTS and survey data. Our analysis is based on five primary data sources: individual firm-level monthly flow credit data from the

[16] While the sector or location of a firm should not theoretically affect aggregate inflation expectations, differences in production costs or living expenses may influence these expectations, following the logic in Andrade et al. (2022).

[17] The substantial sectoral heterogeneity in producer price inflation, driven by differences in production costs, is also partially reflected in firms' expectations.

[18] Recently, Schnorpfeil et al. (2023) documented that in Germany, fewer than 10% of households are aware of the debt-erosion effects of inflation. Firms, however, may possess greater awareness of inflation's impacts, as they tend to have more accurate expectations and perceptions compared to households. Furthermore, in high-inflation environments, firms are likely to be better informed about the potential consequences of inflation.

Banking Regulation and Supervision Agency, monthly stock credit data from the Credit Registry of the Turkish Banking Association, annual firm balance sheets, income statements, and monthly sales data from the Revenue Administration, and monthly employment and wage data from the Social Security Institution.[19] Additionally, we incorporate firm-level data on monthly foreign exchange (FX) market transactions collected from banks operating in Türkiye, which provides high-frequency data on all FX transactions carried out by non-financial firms. Our analysis integrates these diverse datasets, sourced from various organizations, into a comprehensive dataset. This integration is achieved using unique firm IDs, ensuring that the datasets are exclusive to individual firms and consistent across all sources.

The Balance Sheet and Income Statement data provided by the Revenue Administration covers the entire population of Turkish firms, including both incorporated and unlimited entities operating in Türkiye.[20] This comprehensive dataset includes annual balance sheets and income statements, prepared in accordance with Turkey's Tax Procedure Law, spanning from 2009 to the most recent available year, 2023.[21] It allows for detailed observation of sub-items related to assets and liabilities, as well as key indicators such as firm leverage and liquidity, shedding light on firms' financial constraints. Additionally, the Revenue Administration supplies the data on firm-to-firm transactions, specifically for invoice values exceeding 5000 TL, which is approximately 150 dollars in 2024. This dataset provides granular information on transactions between domestic firms. By aggregating the detailed monthly sales data from firm-to-firm transactions, we calculate each firm's total monthly sales.

The second and third data sources, collectively referred to as the Credit Registry, are compiled

[19]The data provided by these institutions are processed by the CBRT using unique firm IDs to ensure consistency across datasets. Moreover, firm balance sheets, income statements, and employment data can be accessed at the Entrepreneur Information System (EIS) laboratory of the Ministry of Industry and Technology. It is important to note that the EIS includes data for the entire population of firms in Türkiye, excluding those in the public and financial sectors. The dataset does not contain information on unregistered firms.

[20]Incorporated firms are required to submit balance sheets and income statements in accordance with Turkey's Tax Procedure Law. Unlimited firms, which operate under the personal income tax regime, are only required to submit these reports if they exceed a specified size threshold.

[21]The annual control variables derived from the balance sheet and income statement are based on data from the year 2023.

from two distinct government entities. Firm-bank-level monthly stock credit data is provided by the Turkish Banking Association, offering detailed insights into firm-bank relationships, including loan maturity and currency denomination. In addition, firm-level flow credit data is obtained from the Credit Registry of the Banking Regulation and Supervision Agency. This dataset includes firm-bank-level monthly flow credit amounts, interest rates, maturity, and currency denomination. Non-performing loans (NPLs) and non-cash loans are excluded, and the analysis is restricted to active cash loans only.[22] Lastly, we limit our examination to flow loans denominated in Turkish Lira, excluding all foreign currency-denominated loans, while including all foreign currency-denominated credits in the outstanding credits.

As the fourth data source, the Social Security Institution (SSI) in Türkiye provides monthly matched employer-employee data, offering detailed wage information for individuals across firms adhering to the balance sheet principle. Average wages are calculated by dividing the total monthly wages paid by firms by the number of their employees. Monthly employment figures are derived by counting the total number of individuals employed by each firm during a specific month.

Lastly, data on spot foreign exchange (FX) market transactions is sourced from banks operating in Türkiye. This dataset offers high-frequency (daily) information on all spot FX buying and selling transactions conducted by firms. Starting in June 2024, firms in Türkiye are required to exchange 30% of their export revenues with the central bank, down from the previous rate of 40%. For this analysis, export revenue sales have been excluded, focusing instead on the effects of firms' inflation expectations on other net currency purchases and sales.[23]

[22] The Credit Registry also tracks default events, particularly those where firms delay loan payments by 90 days or more, which are classified as non-performing loans (NPLs).

[23] Additionally, firms with foreign currency loans but insufficient foreign currency positions may engage in currency purchases. To account for this, the analysis includes firms' foreign currency loans over the past year and their foreign currency positions as control variables when examining currency purchases and sales.

4 Effects of Information Treatments on Expectations

The information RCT is designed to influence firms' inflation expectations by delivering targeted, publicly available data. To control for firms' past behavior and belief heterogeneity, the survey first asks about past changes in aggregate prices, main product prices, and salaries. For example, firms are asked: "By what percentage have your main product prices changed over the past 12 months?" These baseline questions are collected before the treatments.

Each group in the sample is then randomly given a publicly available piece of data regarding professional forecasts of inflation, the CBRT's forecasts for 2024 and 2025, or the CBRT's inflation target.[24] Each group receives one of the following statements:

Treatment 1: *"According to the results of the Market Participants Survey for May 2024: The participants' expectation for the Consumer Price Index (CPI) 12 months from now is 33.21%. In other words, professionals expect general prices to increase by 33.21% over the next 12 months."*

Treatment 2: *"According to the Central Bank of the Republic of Turkey's Inflation Report for May 2024: The Central Bank predicts that annual inflation will be 38% by the end of 2024. In other words, the Central Bank expects general prices to increase by 38% in 2024."*

Treatment 3: *"According to the Central Bank of the Republic of Turkey's Inflation Report for May 2024: The Central Bank predicts that annual inflation will be 14% by the end of 2025. In other words, the Central Bank expects general prices to increase by 14% in 2025."*

Treatment 4: *"Within the framework of the inflation targeting regime, the Central Bank's inflation target is 5%. In other words, the Central Bank aims for the general price level to rise by approximately 5% annually in the medium term."*

Following the information treatment (while the control group receives no such statement), respondents are asked a series of post-treatment questions. These include their quantitative expectations for aggregate inflation, producer price inflation, salary growth, unit cost growth, em-

[24] Each group consists of approximately 250 observations. The selection of firms into treatment is random. See Table-B1 for further details. Questions about price and wage changes over the past 12 months are asked before the treatment, while all other questions are asked post-treatment.

ployment changes, price growth for the firm's main product, and both domestic and export sales. For instance, firms are asked: "Compared to today, in what direction and by what percentage do you expect the prices of your main products to change over the next 12 months?"[25] These post-treatment responses allow us to measure the immediate impact of the information treatments on firm expectations. We then track actual firm outcomes—such as borrowing, hiring, and FX transactions—using matched administrative data in the months following the survey.

We begin by assessing the average impact of the information treatments on firms' inflation expectations. To do so, we regress the change in individual inflation expectations across each wave, from their pre-treatment expectations (derived from the firms' responses in the BTS survey conducted just a few days prior to our RCT survey), on treatment dummies, along with firm-level controls and sector-province fixed effects. Table-2 shows that the largest average treatment effect occurs for the group provided with professional forecasts. This group reports inflation expectations that are, on average, 6 percentage points (pp) lower after the treatment, with producer price inflation nearly 2 pp lower compared to the control group. Figure-2 displays how the inflation expectations are distributed before and after the treatment for each group and Figure-3 visually illustrates the level effect and the change in slopes, where the fitted lines for the treatment groups fall below that of the control group.[26] The average treatment effect remains significant when analyzing post-treatment expectations one month after the RCT survey but disappears after two months. All types of information work similarly on average, including information on the official inflation target of 5%—a stark contrast to the realized annual inflation of 75%.[27] The persistence

[25] See Appendix-A for the full list of survey questions.

[26] It is important to note that although the average treatment effect is negative, nearly 40% of the sample increase their inflation expectations after the treatment. Additionally, around 15% of firms do not revise their expectations at all, suggesting a roughly symmetric response pattern with both upward and downward revisions. Therefore, to remain consistent with the language used in other papers in the literature, we interpret the effects throughout the paper in terms of an increase in inflation expectations.

[27] The CBRT officially announced inflation targeting as the primary monetary policy framework in 2006. Trust in the central bank might be an important mediating factor in how firms respond to information treatments; however, due to the sensitivity of the issue, this information was not collected.

of the impact is similar across groups, with the effect diminishing after two months.[28] This suggests that, in a high inflation environment, while information RCTs successfully generate exogenous changes in expectations, the effects fade within two months—similar to findings in Coibion et al. (2020b), although in their case, inflation was low and around 2%.[29]

After documenting the average treatment effect, the key to assessing how inflation expectations affect firm-level variables in this setting is identifying variation in inflation expectations at the firm level. The RCT design includes information treatments that provide firms with data on professional inflation forecasts, the official inflation target, and the CBRT's predictions, thereby creating exogenous variation in their expectations. To evaluate the impact of these information treatments on expectations, we estimate the following model:

$$\text{Posterior}_i = \alpha_0 + \beta_0 \text{Prior}_i + \sum_{j=1}^{4} \beta_j \times I\{i \in \text{Treat } j\} \times \text{Prior}_i + \sum_{j=1}^{4} \alpha_j \times I\{i \in \text{Treat } j\} + \gamma X_i + \varepsilon_i, \quad (1)$$

where i denotes the respondent in the firm, Prior_i denotes the firm's prior (pre-treatment) inflation expectation, Posterior_i refers to the firm's posterior (post-treatment) inflation expectation. The indicator variable $I\{i \in \text{Treat } j\}$ takes the value 1 if respondent i belongs to treatment group j. Since the control group is excluded from the indicator variable, α_j and β_j measure the effects relative to the control group. X_i represents control variables such as firm size (measured by employment), sector, region, exporter status, and leverage. Including controls only affects the precision of estimates since treatment assignment is random (Coibion et al., 2023). To handle outliers, we employ Huber-robust regressions (Coibion et al., 2024). Huber-robust regressions reduce the influence of outliers, with some extreme outliers receiving a weight of zero.

With this specification, which is widely used in the literature, it is possible to assess the effectiveness of information treatments in a Bayesian learning framework by regressing the posterior

[28] The effects on decision-making last for a longer period, extending up to four months. This difference may be due to individuals modifying their plans in response to the treatment and maintaining those plans, even as they gradually lose recall of the specific information that initially influenced their decisions.

[29] In a high and volatile inflation environment, a constant influx of new information may cause the impact of older information to diminish.

belief on the prior belief. The coefficient β_0 captures the strength of the prior and is expected to be 1 for the control group, as no new information is provided, while α_0 is expected to be 0. In theory, since the treatment provides publicly available information, under the full-information rational expectations hypothesis, even treated groups are expected not to update their priors upon receiving the information, and $\beta + \beta_j$ should equal 1. However, for the control group, the slope coefficient is estimated to be 0.81, which might be due to noise in respondents' answers and some mean reversion in their responses (Coibion et al., 2023). Lastly, the coefficients α_j reflect level effects and can be either positive or negative, depending on how the signal compares to the initial belief.

Fact 1: ***In a high-inflation setting, information treatments effectively generate exogenous variation in inflation expectations if the setting is also volatile.***

The treatments are successful in generating significant exogenous variation in firms' inflation expectations, as shown in Table-3, for both CPI and PPI inflation, with very similar estimated coefficients.[30] The negative interaction term captures the strength of the information provided to the treatment groups. In a Bayesian learning framework, this implies that the treatments reduce the weight of priors and agents put some weights to the signals (treatments) received. As a result, treated groups significantly revise their beliefs compared to the control group, by assigning a lower weight to their priors. Consequently, the coefficients on prior beliefs, $\beta_0 + \beta_j$, for these treatments range between 0.53 and 0.69.[31] Figure-4 shows how inflation expectations move right after the treatment for each treatment group, where the deviation from the control group signals the effectiveness of the information treatments.[32] Providing firms with information about

[30] Table-4 shows the impact does not disappear after the treatment. The impact is particularly still significant one month after the treatment. Regarding the impact on inflation uncertainty, since pessimistic and optimistic forecasts are not collected in regular BTS surveys, we were unable to calculate the prior standard deviation and instead relied on the prior mean.

[31] We conduct the same regression using midpoint estimates instead of the implied mean obtained by fitting a triangular distribution to the best, optimistic, and pessimistic forecasts. The results remain robust, as shown in Table-H2. Additionally, when the control is removed, the results remain consistent, as expected under successful randomization of groups, as demonstrated in Table-H1.

[32] Figure-C1 displays the impact is similar for producer price inflation expectations.

professional inflation forecasts, CBRT's inflation forecasts, and the official inflation target significantly influences their aggregate inflation expectations. The strongest effect is observed in the first group, which received information on market participants' expectations, with an estimated β_1 of -0.29.[33] Information about CBRT's one-year-ahead forecasts is similarly effective, though forecasts for two years ahead are less impactful, as indicated by an estimated β_3 of -0.12, suggesting that longer-term forecasts are less effective in reducing next 12-month inflation expectations. Information about the official 5% target also works, though its impact is smaller compared to the first two treatments. This is reasonable, as the official target has not been met since it was first announced in 2006.[34] Overall, these treatments serve as effective instruments for identifying the causal impact of inflation expectations on firms' outcomes, utilizing the matched datasets mentioned earlier, along with macroeconomic and firm-level expectations.[35]

Theory and Estimates from the literature

We can use the following Kalman gain to understand the treatment effect, based on the inattention literature (see Appendix-G for further details about the model):

$$K = \frac{\text{Var}(\pi_t \mid S_i)}{\text{Var}(\pi_t \mid S_i) + \sigma_\omega^2} = \frac{k \cdot \dfrac{\sigma_\epsilon^2}{1-\rho^2}}{k \cdot \dfrac{\sigma_\epsilon^2}{1-\rho^2} + \sigma_\omega^2}.$$

Here, σ_ϵ is the volatility of the inflation process, ρ its persistence, k a proxy for attention, and σ_ω the noise of the signal. Normally, if agents are fully attentive and have full information ($k = 0$), the Kalman gain (and hence the treatment effect) is zero. Or, if agents only know the underly-

[33] Since the expected rates in different pieces of information vary, it is not possible to definitively claim whether professional forecasters are more credible than the CBRT or not.

[34] This provides additional empirical evidence against the full-information rational expectations assumption, even in a high inflation environment where agents are expected to be more attentive.

[35] Firms in high-inflation environments are generally well-informed about inflation statistics. Weber et al. (2023) demonstrates an increasing degree of attention to inflation through RCTs conducted in countries with higher inflation levels, with the highest rate observed in Uruguay, where inflation averaged 8% and remained relatively stable. In contrast, the Turkish context is characterized by both higher and more volatile inflation. While firms tend to be more attentive to inflation statistics during periods of high inflation, the volatility may create additional opportunities for learning from publicly available information.

ing stochastic process but not the state of the economy ($k = 1$), it is equal to the unconditional variance of the true inflation process. Yet, there are informative signals about the inflation but agents learn from only a subset of available Gaussian signals about inflation because following all signals/news is costly. Thus there is a trade-off between the cost of processing signals and the benefit of the information they provide; observing signals can make k smaller.

A high and volatile-inflation setting can influence the learning process through several channels. First, the benefit of paying attention to inflation rises when inflation is high, so forecast uncertainty should decline in high-inflation periods (Weber et al., 2023). Yet in a volatile and possibly de-anchored environment there are more inflation-related signals to track, increasing cognitive cost; as a result, uncertainty does not fall as much as the benefit channel alone would suggest. Indeed, disagreement about inflation is larger during periods of high inflation (Figure D7). Thus attention is imperfect—k does not fall to zero—leaving room for treatments to have an effect.

Second, the persistence of inflation, ρ, is an important component of treatment effectiveness; Weber et al. (2023) show that persistence increases with the level of inflation, further enhancing the impact of information treatments by pushing K up. Third, the volatility of the inflation process, σ_ϵ, is crucial for treatment effectiveness, and it rises with the level of inflation in Türkiye, implying that the treatment effect can be large. This likely explains the nearly zero treatment effect found for Uruguay in Weber et al. (2023), where inflation hovered around 8–10% with little variation, compared with the Turkish setting, where inflation jumped to 75% and then declined to 35% within two years amid very high volatility. Thus, when both the level and volatility of inflation are high, the treatment effect can be sizable.

Fourth, the noise of the signal, σ_ω, is the final key factor. Because our information is provided by the Central Bank—considered a reputable institution in Türkiye—it is unlikely that signal noise will drive the treatment effect to zero. Taken together, these factors suggest that in a high and volatile-inflation environment there is substantial scope for treatment effectiveness.

The theoretical predictions line up well with our empirical results. The treatment effect in

Equation 1 can be written as the ratio $\frac{\beta_j}{\beta_0}$, i.e. the scaled change in slope, which quantifies the degree of firms' inattention. This measure reflects the relative change in the slope of the relationship between prior and posterior inflation expectations for the treatment groups compared to the control group. Weber et al. (2023) show when inflation is near 9%, the scaled change in slope lies between 0 and –0.15, implying that agents pay close attention to inflation. When inflation is below 5%, the slope ranges from –0.40 to –0.90, indicating much lower attentiveness. A simple fit through the existing estimates suggests that once the inflation rate exceeds 10%, the scaled slope should be statistically indistinguishable from zero.

In Türkiye, however, where inflation currently exceeds 70%, we find scaled slopes between –0.15 and –0.35, depending on the treatment. Thus, even in a high-inflation environment—where the cost of inattention is large—firms are not fully attentive. Because inflation is so volatile, firms lack full confidence in their own forecasts—even though they are well informed about past inflation—and continue to learn from public information, which exhibits much greater variation in this environment than in more stable ones. The constant stream of news, combined with limited cognitive capacity, makes it hard to process every data point. In short, when macro fundamentals move rapidly and unpredictably, there is simply too much to track for firms to generate fully accurate forecasts on their own.

When information comes from a reputable source such as the central bank, the perceived signal precision is high (low σ_ω), so the Kalman gain is large and the treatment has bite. This volatile environment allows the treatments to remain effective in generating exogenous variation in expectations, with the scaled change in slope being larger than anticipated by Weber et al. (2023) due to the heightened volatility.[36] After documenting the impact of our treatments on inflation expectations, we proceed to analyze the causal effect of exogenous variation on firms' outcome variables and their expectations.

[36]Another factor is that β_0 is estimated to be 0.81, which is expected to be closer to one. However, in our case, it is likely a noisy estimate because prior expectations were obtained from the May BTS, conducted approximately a week before our RCT experiment.

5 Causal Impact on Firms' Decisions and Expectations

We can now assess the impact of exogenous variation in the first moment of inflation expectations, induced by the treatments, on firms' outcomes, decisions, and expectations. First, we estimate the effect on firm-level expectations, decisions and realized outcomes using the following regression model:

$$Y_{i,t+h} = \beta_1 \text{Post}_{i,t}^{mean} + \beta_2 \text{Prior}_{i,t} + \gamma X_{i,t-1} + \delta_s + \phi_p + \varepsilon_{i,t+h}, \tag{2}$$

where $Y_{i,t+h}$ represents the quantitative expectations for firm i's wages, unit costs, and own prices over the next 12 months, as well as realized outcome variables such as credit amount, credit cost, foreign currency purchases, employment, wages, purchases of goods and sales. Quantitative expectations are collected during the RCT survey, while the realized outcome variables are tracked over a horizon h, ranging from the time of the RCT survey (zero months) up to 4 months post-treatment. $\text{Post}_{i,t}^{mean}$ is the posterior mean inflation expectation of firm i (measured right after the information treatment) and Prior_i denotes the prior inflation expectation of firm i (obtained from the May BTS). $X_{i,t-1}$ is the vector of firm-level control variables. We begin with analyzing the pass-through of inflation expectations on wage, price, and unit cost expectations. When the outcome variable is expectations, $X_{i,t-1}$ includes age, leverage, employment, exporter status, and prior inflation expectations regarding price and wage growth (measured just before the information treatment). δ_s and ϕ_p are sector and province fixed effects, respectively. [37] Following Kumar et al. (2023), we instrument for the posterior belief about the expected inflation using the treatment dummies and their interactions with firms' priors as follows:

[37] We control for sector and province fixed effects to account for unobserved heterogeneity that could influence how inflation expectations affect firms. Sector fixed effects help capture industry-specific inflation sensitivities, as different sectors may experience varying input costs, pricing power, and exposure to macroeconomic conditions. Similarly, province fixed effects control for regional differences in inflationary pressures, such as local economic conditions, wage growth, or price dynamics, which may vary across regions. By including these fixed effects, we can better isolate the effect of inflation expectations on firm outcomes, removing the influence of sector- and region-specific factors.

$$\begin{aligned} \text{Post}_{i,t}^{mean} = \alpha_0 + \sum_{j=1}^{4} \beta_j \times I\{i \in \text{Treat } j\} \times \text{Prior}_{i,t} \\ + \sum_{j=1}^{4} \alpha_j \times I\{i \in \text{Treat } j\} + \varepsilon_{i,t}, \end{aligned} \tag{3}$$

The aim is to generate exogenous variation in inflation expectations to identify the causal impact of these expectations on firms' economic expectations and outcome variables. The instrument leverages both the average effect of treatments on expectations and the slope effect on priors through the interaction term. As discussed earlier, we run a Huber regression for the first stage and use Huber weights to control for outliers, and also apply a jackknife procedure similar to the one used in Coibion et al. (2024).

The important point to mention here is that β_1 captures the direct effect of inflation expectations on the outcome variable. However, it is likely that firms also revise other beliefs and expectations—such as associating higher inflation with weaker economic outcomes, adjusting their interest rate expectations, or updating currency expectations—depending on how they interpret the information (Andre et al., 2022). Since the inflation process is not isolated, purely exogenous, and disconnected from other macroeconomic dynamics, it is plausible that firms simultaneously update multiple expectations. If these additional changes also influence the outcome variable, then the coefficient β_1 reflects the total effect of inflation expectations, operating through multiple channels. Accordingly, all results in the following sections should be interpreted with this broader perspective in mind.

The results from the baseline estimation are presented in Table-5. Before proceeding with the analysis, it is important to note that the information treatments generate substantial variation in the first stage, with the first-stage Kleibergen-Paap (KP) Wald statistic for inflation forecasts ranging between 25 and 50. These F-statistics are comparable to those reported by Coibion et al. (2023) and other studies, despite the very different context. Thus, even in a high-inflation setting the RCT method successfully creates strong exogenous variation in inflation expectations, enabling the identification of their causal effects on firms' expectations, borrowing behavior, and

real outcomes.

5.1 Firms' Expectations and Pass-Through

Fact 2: ***The pass-through from inflation expectations to firms' own wage, cost, and price expectations is nearly 60%.***

Table-5 shows that firms' aggregate inflation expectations have a highly significant impact on their own expectations for wages, unit costs, and prices. Specifically, a 1 percentage point (pp) increase in inflation expectations leads to a 0.58 pp rise in wage growth expectations, a 0.53 pp rise in unit cost growth expectations, and a 0.55 pp rise in price growth expectations over the next 12 months.

The strength of this pass-through from aggregate inflation expectation to price expectations, which is 60%, is substantially higher than the estimated levels of 0.10-0.30 found in low-inflation environments (Abberger et al., 2024; Baumann et al., 2024; Coibion et al., 2020b), while other studies document a pass-through rate near zero (Coibion et al., 2018; Rosolia, 2024). Our findings also contrast with the weak link between wage and price expectations observed by Savignac et al. (2024) in a low-inflation context.[38] This evidence shows that while pass-through is nearly non-existent or incomplete in low-inflation environments, it likely increases as inflation rises: in an environment of very high inflation, around 70%, the pass-through rate from aggregate inflation expectations to firms' wage and price growth expectations becomes nearly 60%.[39]

Also, pass-through rates to wage and price expectations are very close to each other. This is consistent with the high correlation between wages and prices visually documented in Figure-D4, a relationship typically weaker in low-inflation contexts (Savignac et al., 2024; Gautier et al., 2025). Yet in Türkiye, firms with higher price-growth expectations also tend to have higher expectations for wage and unit-cost growth. Similarly, their perceptions of past wage growth strongly corre-

[38] Evidence from households reveals a similarly weak relationship in low-inflation settings (Hajdini et al., 2023; Jiang et al., 2024).

[39] This is consistent with aggregate time-series evidence from Galı and Gertler (1999), which documents the significant role of future inflation in price-setting over the period 1960-1997, during which the average inflation rate was 4.7%.

late with their perceptions of past price growth. One contributing factor might be that, although Türkiye does not have an explicit wage indexation system, the minimum wage is highly binding—with approximately 40% of the workforce earning wages close to the minimum. As a result, the minimum wage effectively serves as a benchmark for wage-setting across other firms as well. Since the minimum wage is negotiated annually between the government and labor unions, realized and expected inflation rates and living costs play a significant role in these negotiations. Consequently, firms likely associate higher inflation expectations with correspondingly higher wage growth rates.

The high pass-through rates observed in a high-inflation environment are consistent with standard Calvo pricing models (Werning, 2022; Abberger et al., 2024) (see Appendix-H for model details). In this framework, the pass-through from aggregate inflation expectations to inflation can be expressed as:

$$\text{PT}(\rho,\theta) = \frac{1-\theta}{1-\beta\theta\rho} \tag{4}$$

where ρ is the perceived persistence of inflation, θ is the Calvo price stickiness parameter, and the resulting pass-through rate takes a value between 0 and 1. As illustrated in Figure-H1, this pass-through rate increases as prices become more flexible (a lower θ), and in the fully flexible limit ($\theta = 0$), it reaches one as all firms can continuously adjust prices one-for-one with their expectations.[40]

Two key factors, both linked to the level of inflation, drive this mechanism. First, as empirically demonstrated by Alvarez et al. (2019), the frequency of price adjustments increases with inflation, meaning that prices become more flexible in high-inflation environments. Our own findings in Figure D5 corroborate this, showing that firms with higher inflation expectations plan to update their prices more frequently and anticipate larger price increases for their main product over the next 12 months. A second factor is the perceived persistence of the inflation process. As documented by Weber et al. (2023), perceived persistence rises with the level of inflation, in-

[40] In contrast, the pass-through rate is zero if prices are fully sticky ($\theta = 1$), representing the opposite extreme.

creasing from about 0.3 when inflation is near 0% to roughly 0.9 when inflation is around 9%. In a high-inflation environment, a higher perceived persistence—combined with more flexible price setting—implies larger pass-through rates from aggregate inflation expectations to a firm's own price expectations. This helps explain why our estimates (in a high-inflation setting) exceed those reported in the low-inflation literature. Indeed, Equation (4) shows that with a standard Calvo stickiness parameter ($\theta = 0.75$), raising the perceived persistence parameter from 0.3 to 0.8 boosts the pass-through rate from 30% to 60%, which is a sizable change. This shows the importance of anchoring expectations in an economy. When firms believe that deviations from the central bank's inflation target are not temporary anomalies but long-lasting shifts, their behaviour changes fundamentally. Confronted with the prospect of persistently rising costs, a firm will act pre-emptively and decisively, incorporating a much larger share of its long-term inflation forecast into future price adjustments.[41]

While this stylized model provides a clear explanation, it is important to recognize the complexities of a real-world economy. The model does not account for dynamic responses from monetary authorities (who might raise rates to fight inflation), endogenous feedback loops in marginal costs (where higher wage demands could further fuel inflation), or strategic pricing interactions among direct competitors. Additionally, firms' responses might vary depending on the size of the shock or prevailing economic conditions, offering a richer but more complex perspective. Nevertheless, the simplified model provides an essential first-order explanation of the underlying dynamics, though these additional considerations would undoubtedly alter the precise numerical pass-through rates calculated in our simplified exercise.

Ultimately, this analysis underscores the critical importance of maintaining a credible monetary policy anchor. When expectations are well-anchored, the economy acts as a shock absorber:

[41] The results align with recent behavioral literature (Enke and Graeber, 2023; Enke et al., 2024), which suggests that decision-makers who are less uncertain about the optimality of their choices tend to make more elastic decisions. In our context, firms operating in a high-inflation environment are less likely to doubt their near-term expectations after observing significant changes in expected inflation. As a result, the pass-through rates are higher, indicating that firms with greater confidence in their expectations make more elastic adjustments to firm-level decisions. In short, since firms in high-inflation environments are acutely aware of the costs of not adjusting prices and wages, they are more likely to be certain about their future price and wage changes.

idiosyncratic beliefs at the firm level tend to be temporary and exert minimal influence on aggregate inflation. Conversely, when expectations become de-anchored, idiosyncratic changes in firms' inflation expectations may significantly affect their pricing and wage-setting behavior, potentially exacerbating overall inflation. This vulnerability creates the risk of self-fulfilling inflation dynamics, where the collective belief that inflation will remain high becomes the very reason it persists. Thus, the cost of losing the inflation anchor is not merely higher inflation, but a fundamental loss of economic resilience. Therefore, managing inflation expectations in a high-inflation environment is crucial for controlling inflationary pressures. The cost of losing the inflation anchor is particularly high in such environments due to elevated pass-through rates, a weakened nominal anchor, and firms' perception that deviations from the inflation target are likely to persist. This perceived persistence substantially amplifies the pass-through rates, as demonstrated in Figure-H1. Yet, this is not the only cost of elevated inflation; it also adversely affects firms' future economic outlook.

Fact 3: ***Higher inflation expectations make firms more pessimistic about both their own future performance and the aggregate economic outlook.***

Another important aspect is how firms link inflation expectations to their views on the economic outlook. The evidence is mixed: Coibion et al. (2018) show that in New Zealand, firms interpret business cycles as demand-driven and thus become more optimistic with higher inflation, similar to professionals' views (Candia et al., 2020). Evidence from Coibion et al. (2020b) suggests that this relationship may be state-dependent: Italian firms tend to associate higher inflation with weaker economic activity during normal times, similar to households' views, reflecting pessimism and a supply-side view of the economy. However, they perceive higher inflation more positively during zero lower bound periods, when it is linked to increased economic activity and optimism.

As a contribution to this literature, our findings indicate that in high-inflation environments, firms with elevated inflation expectations adopt more pessimistic views of the broader economic outlook and expect reduced aggregate economic activity. The economic outlook expectations, re-

ported in Panel-B of Table-5, are qualitative and categorized as 0 for optimism, 1 for neutrality, and 2 for pessimism. The impact is sizable: a one-standard-deviation increase in inflation expectations (20 pp) is associated with a 0.48-point rise in pessimism regarding aggregate economic activity on this scale. Consequently, a two-standard-deviation increase in expectations would shift a firm's outlook from neutral to pessimistic regarding overall economic activity. To place this result in context, Coibion et al. (2020b) ask a similar question about general economic conditions on a scale from -1 (worse) to +1 (better) and find that a 1 percentage point increase in inflation expectations leads to a 0.23-point shift toward pessimism. However, in their low-inflation setting, the standard deviation of expectations is only 1.2 percentage points. This implies that approximately a 3.5-standard-deviation increase in inflation expectations (equivalent to a 4.3 pp rise) would move a firm's outlook from neutral to pessimistic in their sample, a finding that is directionally consistent with our own.

The pessimism likely stems from the challenges firms face in such contexts, where uncertainty about future costs and revenues complicates planning for investments, pricing, wage-setting, and contracts. Firms may also anticipate that inflation reduces consumers' purchasing power, leading to weaker demand.[42] This finding implies a symmetry: just as higher inflation expectations are linked to pessimism, lowering those expectations could foster optimism. This suggests that a disinflationary process, if accompanied by well-anchored expectations, may not necessarily generate a pessimistic economic outlook and could potentially contribute to more favorable "soft landing" scenarios, as observed in many countries during the post-COVID period.

In addition to their adverse impact on aggregate economic expectations, inflation expectations also significantly influence firms' outlooks on their own business prospects, albeit to a lesser extent. Specifically, a one-standard-deviation increase in inflation expectations (equivalent to a 20 pp rise) corresponds to a 0.28-point increase in pessimism about their own business activity. This finding aligns with the broader literature, such as Roth and Wohlfart (2020), which shows

[42]Wages cannot keep up with inflation due to their stickiness (income effect), and Schnorpfeil et al. (2023) document that households are aware of the nominal asset erosion effects of inflation (wealth effect).

that individuals who update their macroeconomic outlook tend to extrapolate these expectations to their personal economic circumstances. Similarly, our results suggest that firms extend their macroeconomic pessimism to their expectations about their own business conditions.

To clarify the comparison with the literature, in our case, the magnitude of the estimate for firms' own business conditions is nearly 40% smaller than the estimate for the general economic outlook, which is similar to the findings in Coibion et al. (2020b), where the estimate for own conditions is about 30% smaller than that for the general economic outlook. This suggests that while firms do extrapolate their macroeconomic outlook to their own business conditions, the extrapolation is partial rather than complete in both settings. In both settings, a change in inflation expectations from the information treatment is perceived as a supply shock to the economy and the firm (Coibion et al., 2020a). Furthermore, a one-standard-deviation increase in inflation expectations leads to a 0.24-point increase in firms' expectations of tighter credit conditions, even after controlling for their prior borrowing cost expectations.[43] When firms expect inflation to rise, they may foresee tighter lending conditions from banks, as lenders respond to the risks posed by higher inflation—such as diminished real returns on loans, potential economic instability, and higher default rates. Moreover, the descriptive evidence presented in Figure-D7 aligns with this causal impact, indicating that firms with higher inflation expectations tend to exhibit greater pessimism about both the broader economic outlook and their own firm's prospects, while also anticipating lower sales growth both in domestic and international markets.

Overall, this stagflationary perspective aligns with the negative impact of expectations on firms' real outcomes, as demonstrated in the next section. The pessimistic expectations of firms with higher inflation expectations were actually realized in the months following the treatment. This evidence paints a consistent picture: firms with higher inflation expectations become more

[43]Smaller firms, which typically face higher borrowing costs and more limited access to finance, are especially sensitive to changes in credit conditions. For these firms, heightened inflation expectations amplify concerns about tighter credit, as they are more vulnerable to increasing interest rates or reduced credit access. In contrast, larger firms, with more established credit relationships and greater financial flexibility, can better manage such shifts, resulting in a smaller effect on their expectations of credit conditions. This effect is more pronounced for smaller firms compared to larger ones, highlighting the critical role that inflation expectations play in shaping firms' perceptions of the credit environment.

pessimistic about the economy and their own firm's prospects.

5.2 Borrowing Behavior of Firms

Since we can match the firms in the RCT survey with credit registry data, we are able to analyze their borrowing behavior before and after the treatment, and capture the dynamic causal effects. An exogenous change in inflation expectations can influence borrowing decisions through different channels, as discussed in Ropele et al. (2022):

1. Working capital channel: Firms anticipating higher inflation may reduce demand for short-term credit, as they expect to cut employment costs often funded by short-term credit lines.
2. Investment demand channel: Higher inflation expectations can lead firms to lower investment, reducing the need for long-term credit.
3. Precautionary reallocation channel: Firms may shift to short-term debt to better manage cash flow shocks in uncertain economic conditions.
4. Refinancing channel: To lock in current rates before inflation drives up future nominal interest rates, firms might refinance by taking on new long-term loans.

Using data from the credit registry and foreign exchange buying/selling administrative datasets, we adopt the following empirical approach. Let $Y_{i,t+h}$ denote the outcome variable for firm i at time $t+h$. To assess the impact of inflation expectations formed before the treatment period, we regress these economic outcomes on pre-treatment inflation expectations, as specified in Equation (2).[44] The set of controls includes expectations of economic variables such as the firm's outlook on sector conditions over the next three months, firm-specific employment growth in the following three months, and the firm's expectations about production volume over the same period. These controls are taken from time $t-1$, which is the pre-treatment month (April 2024). Additionally, we control for the annual leverage ratio, employment, and capacity utilization ratio.

[44] This specification can be viewed as a local projection (LP-IV), in line with Jorda (2005), as we estimate the causal effect of an exogenous change in inflation expectations at time t on each outcome variable at time $t+h$.

The vector of controls further includes annual total credits and the weighted average credit score when the outcome relates to credit market outcomes, and annual total foreign currency buying and selling when the outcome concerns foreign exchange transactions. These variables allow us to account for firms' expectations, enabling the coefficient to be interpreted as the response of the outcome variable to an exogenous surprise movement in inflation expectations. Lastly, each outcome variable is defined as the log difference between the post-treatment and pre-treatment periods (i.e., $\log\left(\frac{y_{t+h}}{y_{t-1}}\right)$). We utilize the information treatment at time t as an instrument for the inflation expectations that follow at time t, as shown in Equation-(3).

Fact 4: ***Firms expecting higher inflation increase their demand for credit and strategically shift its structure, seeking more long-term financing while reducing short-term debt.***

Table-6 shows that firms with higher inflation expectations demand more credit: a 1 percentage point increase in inflation expectations leads to nearly a 3 percent rise in new credit usage and a 1 percentage point increase in the credit utilization rate—the ratio of used credit to total approved credit lines—within two months of the treatment. This increase is accompanied by a clear shift in the composition of borrowing: while long-term credit rises significantly, short-term credit declines.

This pattern suggests that neither the precautionary reallocation channel—where heightened uncertainty leads firms to shorten maturities without increasing overall borrowing (Kumar et al., 2023)—nor the investment delay channel—which would imply a decline in long-term borrowing due to postponed investment plans under uncertainty (Bloom, 2009)—are driving the results. The working capital channel could explain a decline in short-term credit if firms reduce employment (which is typically financed via short-term borrowing), but it would also predict a decline in total borrowing (Coibion et al., 2020b), which we do not observe.

Instead, the evidence is more consistent with a refinancing channel. Firms with higher inflation expectations—induced by the treatment—may anticipate rising nominal interest rates or believe that higher inflation may erode the real value of fixed-rate debt, which constitutes the ma-

jority of firms' liabilities. If firms expect a rapid tightening of monetary policy to tame inflation, it makes sense to lock in current rates before borrowing becomes more expensive. Alternatively, if firms believe that policy will remain accommodative and that interest rates will respond only weakly to rising inflation, then higher inflation would erode the real value of nominal debt—again making it preferable to lock in current rates. Moreover, firms were not expecting a rapid decline in interest rates at the time, as annual inflation stood at 75%, and their 12-month-ahead inflation expectations were nearly 60%. Meanwhile, the policy rate had been raised to 50% in March 2024 and was expected to remain at that level until a meaningful decline in inflation materialized. Thus, under either scenario, firms may respond to increased inflation expectations by extending the maturity of their borrowing to secure current interest rates, thereby reducing their long-term financing costs. Indeed, Table-6 shows that these firms increase their borrowing by expanding their long-term credit and also pay lower average interest rates following the treatment: a 1 percentage point increase in inflation expectations leads to a 3.7 basis point decline in firms' average borrowing cost, driven by a higher share of lower-rate, long-term debt. This suggests that firms are not only willing to borrow more when their inflation expectations rise, but they are also able to do so at lower average rates by shifting toward longer-term debt, as loans are typically issued at fixed interest rates, with the option to refinance as rates change in Türkiye.

The compositional shift from short-term to long-term credit is economically and statistically significant. A 1 percentage point increase in inflation expectations increases new long-term credit by 4.7 percent within the first month, while new short-term credit decreases by nearly 2.7 percent relative to the control group, as shown in Table-7. These effects persist for approximately three months. Concurrently, the cost of borrowing for short-term credit declines by about 3 basis points, likely reflecting reduced demand, offering some evidence consistent with the working capital channel, while the higher demand for long-term borrowing raises its cost by a similar amount. Importantly, since total new credit does not decline—and in fact increases, as documented in Table-6—the refinancing channel appears to be the more dominant mechanism relative to the working capital channel. Firms with higher inflation expectations seem to extend the

maturity of their borrowing to lock in current rates, even at the cost of slightly higher interest rates on long-term credit, which are still lower than those on short-term debt.

The parallel shifts in both the quantity and cost of credit suggest a demand-side explanation. If credit supply remains unchanged, simultaneity concerns are mitigated, allowing us to attribute the observed credit changes to firm behavior. Table-F1 shows that firms' total credit lines remain constant following the treatment, supporting the interpretation that the changes in credit usage reflect demand shifts. Table-7 further confirms that the increased demand is concentrated in long-term credit: this is reflected in the rise in both long-term borrowing and its associated cost, while short-term credit usage falls alongside a decrease in its cost. A 1 percentage point increase in inflation expectations raises the cost of long-term borrowing by 3 basis points and lowers the cost of short-term borrowing by a similar magnitude. However, because firms shift away from more expensive short-term credit and toward cheaper long-term credit, the average weighted cost of borrowing actually declines. On average, long-term financing is 4 percentage points cheaper than short-term borrowing.[45] Thus, as Table-6 shows, firms with elevated inflation expectations increase their credit usage while paying a lower average cost due to this compositional shift.

This increase in maturity is not limited to newly issued loans. We also examine changes in outstanding credit stocks. Table-8 shows that a 1 percentage point increase in inflation expectations leads to a 3.8 percent increase in total outstanding credit within two months of the treatment. Specifically, long-term outstanding credit rises by 8.3 percent in the first month and 4.1 percent in the second month—both statistically significant increases. In contrast, short-term outstanding credit declines by 2.6 percent and 2.1 percent in the first and second months, respectively, with the effects becoming statistically insignificant at longer horizons. These patterns in outstanding credit are consistent with those observed for credit flows, reinforcing the conclusion that firms

[45] As of May 2024, the average cost of short-term borrowing is 52%, while the average cost of long-term borrowing is 48%.

shift toward longer maturities in response to higher inflation expectations.[46]

There are few directly comparable studies in the literature. Ropele et al. (2022) document no change in total outstanding loans following an increase in firms' inflation expectations, yet they observe a rise in average borrowing costs due to a reallocation of debt from long-term to short-term maturities. In contrast, we find that higher inflation expectations lead to an increase in total credit usage, and although borrowing costs also rise, this is driven by a shift toward long-term credit.

Specifically, Ropele et al. (2022) show that a 1 percentage point increase in inflation expectations results in a 3 percent increase in short-term outstanding loans and a 2 percent decline in long-term outstanding loans within six months of the treatment. These effects intensify over time, reaching a 7.7 percent increase in short-term loans and a 4.4 percent decline in long-term loans after six quarters—evidence of a substantial decline in debt maturity. While they also document that firms engage in some refinancing by taking on new long-term loans to lock in rates, overall usage of long-term debt declines significantly.

By contrast, our results point to the opposite pattern. We find that a 1 percentage point increase in inflation expectations leads to a 3.9 percent rise in new long-term credit and a 3.3 percent decline in new short-term credit, alongside a 4.1 percent increase in outstanding long-term credit and a 2.1 percent decrease in outstanding short-term credit. This consistent directional shift in both flow and stock measures indicates a clear movement from short- to long-term borrowing, motivated by the desire to lock in existing rates in anticipation of higher future inflation. Although the settings differ substantially, the magnitudes are comparable. Yet, unlike Ropele et al. (2022), we do not find evidence for the reallocation from long to short-term debt in our high-inflation context.

Moreover, Ropele et al. (2022) highlight a strong supply-side response: a 1 percentage point

[46] As a robustness check, we replicate the flow credit analysis using the active borrowing sample, excluding firms that do not adjust their credit within the specified horizon. As shown in Table-G19 and Table-G20, the results remain robust. Moreover, because flow data are missing for some firms in certain periods, we also examine the impact using the cumulative credit flow over the four months following the treatment (Table-G21). The findings are highly consistent with those from the benchmark analysis.

increase in inflation expectations leads to a 1.4 percentage point reduction in granted credit lines, claiming that the actions of firms with heightened expectations make them less credit-worthy to the banks. In contrast, we observe no change in total credit lines following the treatment, such that we can claim there is no supply-side effects contaminating the estimation. This absence of supply-side adjustments strengthens our identification strategy, implying that observed changes in credit behavior stem from shifts in firm-side demand rather than credit supply constraints. Any changes in credit behavior between treatment and control groups can be attributed to differences in firms' demand for financing after the treatment.

Furthermore, Ropele et al. (2022) report a 0.6 percentage point increase in the credit utilization rate within one year, while we find a more immediate response: a 1 percentage point increase in the utilization rate within just two months. Similarly, Coibion et al. (2020b) document that a 1 percentage point increase in inflation expectations raises utilization by 1 percentage point after three months. Our estimates align closely: we observe a 1.3 percentage point increase after one month and a 1 percentage point increase after two months, with effects becoming statistically insignificant thereafter.

Furthermore, Ropele et al. (2022) find a decline in the total amount of credit lines and no change in total outstanding loan usage. They also document a 0.6 percentage point increase in the credit utilization rate within a year. Similarly, Coibion et al. (2020b) document that a 1 percentage point increase in inflation expectations raises the utilization rate by 1 percentage point after three months. Our estimates align closely: we observe a 1.3 percentage point increase after one month and a 1 percentage point increase after two months, with the effects becoming statistically insignificant thereafter. However, in their case, the rise in utilization may reflect a declining denominator—i.e., a reduced credit line—whereas in our case, it stems solely from increased credit usage, as the credit line does not change significantly following the treatment.

In short, the surge in demand for new long-term credit tends to exert upward pressure on associated interest rates. However, since long-term credit typically carries lower rates than short-term credit, the overall effect is a reduction in the average cost of borrowing. Thus, despite the sub-

stantial increase in total credit demand, the net effect on borrowing costs is negative due to these counteracting forces, with the compositional shift toward longer maturities being the dominant factor. Although firms with elevated inflation expectations likely anticipate somewhat higher interest rates in the future, the decision to lengthen debt maturity remains the primary driver of borrowing cost dynamics. By extending maturities in a high-inflation environment, firms reduce the frequency of debt rollovers, making them less vulnerable to market volatility. This strategy also ensures more predictable cash flows and allows firms to benefit from fixed interest rates by locking in lower nominal rates.

It is also important to note that many firms in our setting revise their inflation expectations downward. These firms tend to shorten the maturity of their debt by shifting from long-term to short-term financing. Their reasoning is that if inflation and interest rates decline rapidly, current high interest rates will become increasingly costly, and they would bear the burden of locking in unfavorable terms. Instead, they prefer short-term borrowing, anticipating the opportunity to refinance at lower rates in the near future. Thus, the direction of adjustment in debt maturity is shaped by firms' beliefs about future inflation: those expecting higher inflation extend maturities, while those expecting lower inflation shorten them.

Nonetheless, maturity is only one dimension of the debt structure. As discussed in the next section, the currency composition of borrowing also changes in response to inflation expectations.

Fact 5: ***Firms with higher inflation expectations de-dollarize their liabilities by increasing borrowing in the local currency and reducing foreign currency debt.***

The total increase in total credit is driven by the rise in lira-denominated outstanding credit, while we observe a decline in FX-denominated credit. As shown in Table-8, firms with a 1 percentage point higher inflation expectations increase Turkish Lira denominated credits by 5.8 percent one month after and by 3.4 within three months after treatment. At the same time, these firms decrease their FX denominated credits by 1.8 percent one month after and by 1.1 percent 3 within

three months after the treatment.

This pattern suggests that, with heightened inflation expectations, firms perceive borrowing in lira as relatively cheaper than borrowing in foreign currencies due to the debt-erosion effects of domestic inflation—that is, the real value of nominal lira liabilities will decline over time. Firms anticipating higher inflation are likely to lock in current fixed rates on lira-denominated credit, expecting that inflation will reduce the real value of their debt over time. Conversely, FX borrowing becomes less attractive, as its real cost increases if the domestic currency depreciates. Consequently, we observe a shift in the composition of liabilities toward lira-denominated credit. This behavior may also reflect the expected pass-through between inflation and currency depreciation: if firms anticipate significant currency depreciation alongside higher inflation, they view FX-denominated credit as even more expensive.[47]

The same logic applies in the opposite direction: firms with decreased inflation expectations tend to increase their FX-denominated borrowing. These firms may anticipate lower domestic interest rates in the near future, making lira-denominated borrowing less appealing due to expected refinancing costs. At the same time, they may expect slower depreciation of the lira, which increases the attractiveness of FX borrowing. Indeed, during the disinflationary period in Turkey in 2025, we observe a notable increase in the share of FX borrowing as firms revised their inflation expectations downward.

Such currency-composition dynamics matter particularly in emerging markets, where dollarization is high (in Turkey, roughly 40 percent of corporate debt is FX-denominated). The interaction between inflation expectations and currency expectations can influence both sides of the balance sheet. So far, we have shown how inflation expectations affect the liability side. In the next fact, we turn to the asset side, using data on firms' FX transactions.

[47] Delgado et al. (2024) shows the significance of pass-through from nominal exchange rates to inflation expectations.

Fact 6: ***Firms with higher inflation expectations dollarize their assets by increasing their holdings of foreign currency.***

Turning to the asset side, we examine how changes in inflation expectations influence firms' liquidity management and currency composition of financial assets. By linking firm-level data with high-frequency foreign exchange transaction records, we find that firms with heightened inflation expectations increase their foreign currency purchases while simultaneously reducing their foreign currency sales in the FX market. This behavior offers causal evidence of a well-documented risk-management strategy in emerging markets, where firms accumulate foreign currency—such as U.S. dollars—to hedge against inflation risks in the domestic currency (Allayannis and Ofek, 2001). As shown in Table-9, the effects are substantial: a 1 percentage point increase in inflation expectations leads to a 2.5 percent rise in foreign currency purchases and a 2.9 percent decline in foreign currency sales. These effects persist for up to three months, after which treated firms are no longer statistically distinguishable from control firms. The same logic also holds in the opposite direction: firms with reduced inflation expectations tend to decrease their net FX holdings, likely because they anticipate a slower pace of depreciation in the nominal exchange rate. To our knowledge, this is the first causal evidence from a randomized control trial demonstrating how firms' inflation expectations influence their portfolio management decisions in an emerging market context.

Overall, the results demonstrate that nearly all effects remain significant up to the fourth month following the treatment. While the effects on decisions persist, our findings in the previous section indicate that the impacts on expectations diminish substantially within two months. This divergence could arise because individuals revise their plans in response to the treatment and subsequently adhere to those plans, even as they gradually forget the specific information that initially influenced their decisions.

5.3 Firm Performance and Real Outcome

Finally, we evaluate the impact of firms' inflation expectations on real outcome variables. We estimate Equation-(2) using a set of controls that incorporates expectations of various economic variables while utilizing the information treatment at time t as an instrument for the inflation expectations observed at that same time. Specifically, we incorporate the firm's outlook on sector conditions for the next three months, anticipated firm-specific employment growth during the same period, and expectations regarding production volume. These controls are derived from time $t-1$, which corresponds to the pre-treatment month of April 2024. In addition, we account for the annual leverage ratio, current employment levels, and the capacity utilization ratio. Furthermore, when the outcome pertains to employment, wages, sales, or purchases, the vector of controls also includes the previous year's annual data for these variables.

Fact 7: ***Firms with higher inflation expectations decrease employment and moderate sales activity while increasing inventory holdings in subsequent months.***

We find that an exogenous increase in firms' inflation expectations has significant, negative effects on their real sales and employment as documented in Table-10. This is consistent with the finding from Fact 3 that firms adopt a more pessimistic outlook as their inflation expectations rise, making them hesitant to increase employment or production. The impact is sizable: a one percentage point increase in inflation expectations corresponds to a 1.2% decline in employment, a 0.7% decline in new hires, and a 2% decline in sales within the two months following the treatment. This is also reflected in firms' relationships with their customer (downstream) firms in Table-10, as a 1 percentage point increase in inflation expectations leads to a 1.3 percent decline in the number of customers. These findings causally link the pessimistic outlooks documented earlier to tangible, negative impacts on firms' real business activities.[48]

The estimates reported in the literature are broadly comparable, but the effects vary depend-

[48] For Fact-3, Table-5 presents the causal impact of inflation expectations on the economic outlook, while Figure-D7 provides the descriptive evidence.

ing on the setting. Coibion et al. (2018) show that among New Zealand firms with high prior expectations who were treated with the Reserve Bank of New Zealand's inflation-target information, a 1.2 percentage point decline in inflation expectations leads to an almost 3 percent reduction in both investment and employment. Baumann et al. (2024), using an RCT conducted in the Euro Area, document that a 1 percentage point increase in inflation expectations leads to a 0.3 percentage point (planned) increase in employment in the relatively high-inflation environment of 2023. Both studies are consistent with a demand-side view of firms. However, while the New Zealand study was conducted in a low-inflation environment (below 2%), the Euro Area experiment took place in 2023, when inflation was around 7%. Thus, despite the difference in inflation environments, the interpretations are similar.

Using a sample of Italian firms, Coibion et al. (2020b) find the opposite pattern and long-lasting effects: a 1 percentage point rise in inflation expectations lowers employment by 0.7 percent after 12 months and reduces sales by nearly 2 percent after 24 months when the economy is away from the zero lower bound—supporting a supply-side view of the economy. However, if the economy is at the zero lower bound, the signs reverse for some outcomes, such as employment.[49]

In our case, a 1 percentage point increase in inflation expectations leads to a 2 percent decline in sales within two months of the survey, but the effect becomes statistically insignificant thereafter. For employment, the decline reaches 1.2 percent after four months. Thus, while the short-run magnitudes are comparable to those found in Italy—at least in periods away from the zero lower bound—the effects in Türkiye are far less persistent. A likely reason is Türkiye's highly volatile macroeconomic environment: firms are continually bombarded with fresh signals—policy shifts, exchange rate fluctuations, and price shocks—so the informational value of the original treatment decays quickly. A constant flow of new signals quickly erodes the informational value of the original treatment. The treatment generates a sizeable gap relative to the control group for the first four months, but that difference is no longer statistically significant thereafter.

[49] One advantage of our setting is that we are able to track both employment and sales at monthly frequency.

Moreover, as shown in Table-11, the impact on wages is positive—approximately 0.6 percentage points—two months after the treatment, which coincides with the mid-year wage adjustment period. This is consistent with the pass-through rates from inflation expectations to wage expectations discussed in the previous section. There, we find that the pass-through rate is nearly 60%, and the observed change in wages aligns with these expectations, suggesting that the expectations were, in fact, realized.

The positive impact of inflation expectations on firms' purchases indicates that a 1 percentage point increase in these expectations results in a 1 percent increase in a firm's purchasing activity from upstream (supplier) firms, as documented in Table-10. Consistent with this, we observe a 1 percent increase in the number of suppliers as well. At first glance, this impulse to increase purchases while simultaneously reducing sales and employment seems contradictory. However, this behavior is consistent with a forward-looking inventory management or cost-hedging strategy. When firms anticipate higher future input prices, they have a strong incentive to increase current purchases to build up stock, lock in lower costs, and ensure uninterrupted production. This forward-buying response to expected price pressures explains the positive impact on purchases, even as firms pull back on hiring and sales in anticipation of a weaker economic environment.

Lastly, Appendix-I shows that a standard New Keynesian model augmented with firm-level inflation expectation shocks can qualitatively replicate Facts 3–7. Although the model operates in general equilibrium while our empirical exercise isolates firm-level responses, this simple framework nevertheless reproduces the directional patterns we observe in the data. In the model, firms interpret a positive inflation expectation shock as a negative supply shock, leading to lower sales and employment but higher prices and nominal wages—consistent with our empirical findings. At the same time, such a shock causes firms to view long-term interest rates as relatively cheaper, since the higher end of the yield curve is more sensitive to changes in inflation expectations. This perception prompts a shift from short-term to long-term borrowing within a CES demand framework for different loan maturities. The response reflects firms' anticipation that monetary policy will tighten—consistent with a Taylor rule—such that it is better to lock in current rates now, or

that the real value of debt will erode over time if the tightening is not sufficiently hawkish, as inflation will remain persistently high. Furthermore, assuming uncovered interest parity holds and the real cost of foreign borrowing remains unchanged, firms reduce their FX-denominated borrowing in favor of TL-denominated credit if they experience positive inflation expectation shocks, since they anticipate the real value of TL-denominated debt will decline over time. In sum, while our empirical evidence documents how an exogenous shift in inflation expectations influences firm behavior, a standard New Keynesian framework with inflation expectation shocks can account for these responses in terms of both direction and underlying mechanisms.

In sum, our findings document how inflation expectations affect real activity. On one hand, firms react to higher inflation expectations with immediate, stagflationary cuts to employment and sales. On the other hand, they simultaneously engage in forward-looking behavior, raising wages to match expectations and increasing purchases to hedge against future cost pressures.

6 Robustness Analysis

In this section, we systematically assess the robustness of the baseline results obtained in the previous section through various complementary econometric approaches. These robustness analyses include alternative IV methodologies, explicit controls for uncertainty, alternative uncertainty measures, sample selection strategies, and longer horizon comparisons. Below, we discuss the rationale, methodology, and detailed interpretations for each robustness check, summarizing their collective implications for our main findings.

Initially, we employ a simplified IV method known as the Wald estimator, directly utilizing the random treatment assignment indicator as an instrument for posterior inflation expectations. Intuitively, the first stage of this approach captures how firms' inflation expectations shift as a direct consequence of random treatment assignment. By isolating this exogenous variation, the second-stage estimates reflect how these induced changes in inflation expectations causally influence firm behaviors. Specifically, the Wald estimator provides a causal estimate derived as the ratio

of the intent-to-treat (ITT) effect—capturing the direct impact of treatment assignment on firm outcomes—to the first-stage effect, representing the impact of treatment assignment on inflation expectations. The results obtained using this Wald estimator reaffirm our baseline findings, demonstrating that firms significantly adjust borrowing behaviors, credit compositions, and foreign currency activities in response to elevated inflation expectations. The consistency of these results, detailed in Tables G1 to G6, demonstrates robustness to the functional form and maintains economic meaningfulness, despite minor variations in coefficient magnitudes.

We then extend our robustness analysis to disentangle the distinct impacts of inflation expectations and associated uncertainty by simultaneously instrumenting both measures using treatment assignment as the sole source of exogenous variation. In the first stage, we explicitly show how treatment assignment affects both the mean level of inflation expectations and the uncertainty surrounding these forecasts, as reflected by the dispersion in firms' posterior subjective distributions. Notably, the first-stage relationship for uncertainty is relatively weak, suggesting limited explanatory power of the treatment in influencing subjective uncertainty. Consequently, the second-stage results summarized in Tables G13 to G12 reflect predominantly the causal influence of mean inflation expectations. Indeed, the coefficients associated with mean inflation expectations remain statistically significant and economically substantial, whereas uncertainty-related coefficients typically appear insignificant or negligible. This indicates that firms predominantly respond to changes in the first moment of their inflation expectations rather than fluctuations in uncertainty. Such evidence underscores the critical role of clear and credible policy signals concerning future inflation.

Further, we adopt an alternative measure of inflation uncertainty based on firms' rounding behavior in reported inflation forecasts, following the methodology proposed by Binder (2017b). The intuition behind this proxy is that greater forecast uncertainty results in less precise (more rounded) reported expectations. Since we did not measure prior uncertainty explicitly in the RCT, we obtained this proxy uncertainty measure from firms' rounding behavior. Instrumenting both mean inflation expectations and this rounding-based uncertainty measure with treatment assign-

ment, our first-stage regression captures how treatment influences both the level and precision of firms' inflation forecasts. Once the estimated uncertainty is obtained, we follow the methodology by Kumar et al. (2023). Given the weak first-stage results for rounding-based uncertainty, we focus primarily on the robust first-stage and second-stage relationships involving mean inflation expectations. The second-stage estimates, reported in Tables G14 to G18, robustly confirm that shifts in mean inflation expectations exert significant, economically meaningful effects on firm decisions. Conversely, rounding-based uncertainty measures remain statistically insignificant and economically insubstantial, further confirming that uncertainty does not independently drive firms' economic decisions.

Additionally, we reassess the robustness of our baseline estimates by restricting the analysis to firms actively engaged in borrowing and foreign currency trading. By excluding firms with imputed zero credit flows, this approach aims to verify that our main findings are not driven by imputation choices. Results from this active-only subsample, as detailed in Tables G19 and G20, remain highly consistent with our main analysis. Higher inflation expectations continue to significantly increase total and long-term borrowing, reduce short-term borrowing, and influence foreign currency trading behaviors. This robustness to sample selection bolsters confidence in our empirical findings, suggesting genuine behavioral responses rather than methodological artifacts.

Finally, we extend the robustness analysis by comparing outcomes over a broader pre- and post-treatment horizon using a difference-in-differences framework. By comparing credit and foreign currency activities during the four-month post-treatment window (June–September) against the pre-treatment period (January–April), this approach controls for firm-specific, time-invariant heterogeneity and general temporal trends. The results in Table G21 robustly support our baseline conclusions. Higher inflation expectations remain associated with increased total credit flows, altered credit composition favoring long-term credit, reduced short-term borrowing, decreased borrowing costs due to the compositional shift in the debt structure, and increased foreign currency purchasing. The sustained significance across a longer observational window indicates the

economic durability and causal validity of the observed behavioral adjustments.

7 Conclusion

Using an information RCT design, we create exogenous variation in inflation expectations within a high-inflation environment and document the effects of these expectations on firms decisions in a causal way. We demonstrate how inflation expectations of firms impact their own expectations, borrowing behavior, and real outcome variables. Specifically, we find that firms with higher inflation expectations anticipate paying higher wages, incur higher unit costs, and set higher prices for their primary products, with pass-through rates considerably higher than those observed in low-inflation environments. Furthermore, we document a negative impact on borrowing costs alongside a positive effect on borrowing amounts, indicating that firms are shifting from short-term to long-term financing by locking in current rates, as they believe that higher inflation will erode the real value of their debt. Additionally, we observe that, as a consequence of a stagflationary view on the economy, firms with exogenously higher inflation expectations experience lower employment and sales growth. However, they simultaneously increase purchases to mitigate pressure on marginal costs, anticipating that input prices will be higher in the future. Overall, the results demonstrate that RCTs are effective in creating exogenous variation in firms' inflation expectations, enabling causal identification of the channels discussed here. Further research could focus on how uncertainty in a high-inflation environment impacts firm-level outcomes.

Table 1: Descriptive statistics by treatment status

	Control		Treat #1		Treat #2		Treat #3		Treat #4		Full sample		Manufacturing firms	
Variable	mean	sd	mean	sd	mean	sd	mean	sd	mean	sd	mean	sd	mean	sd
Net Sales (billion TL)	1.31	3.41	1.34	3.91	1.57	4.24	1.47	3.92	1.32	3.85	1.41	4.18	1.67	5.15
Assets (billion TL)	1.21	2.88	1.36	4.31	1.31	4.27	1.32	3.44	1.31	3.62	1.30	3.95	1.82	4.99
Capital (K) (billion TL)	0.25	0.72	0.34	0.42	0.27	0.91	0.23	0.71	0.21	0.62	0.26	0.76	0.32	0.89
Exports (billion TL)	0.41	0.19	0.45	0.24	0.46	0.31	0.52	0.27	0.48	0.29	0.47	0.21	1.17	4.09
Net Profit (billion TL)	0.81	0.17	0.87	0.34	0.88	0.29	0.88	0.27	0.89	0.30	0.87	0.29	0.89	1.81
Age	22.85	12.42	22.55	11.36	22.90	12.71	23.44	12.09	22.71	12.86	22.89	12.97	23.14	16.51
Number of Employees	615.17	910.86	637.65	842.25	624.49	886.26	662.75	851.02	621.67	798.04	632.18	874.21	649.83	1330.41
Prior Expectations														
CPI (implied mean)	58.63	18.23	62.48	18.73	59.14	16.65	58.61	17.82	59.31	17.56	59.55	17.56	-	-
PPI (implied mean)	58.45	20.09	60.28	20.05	57.91	18.81	58.99	20.18	57.25	18.82	58.19	19.29	-	-
Production Capacity Utilization	68.62	19.75	69.81	19.27	69.38	19.47	69.29	20.65	69.47	21.51	69.29	21.51	-	-
Posterior Expectations (RCT)														
CPI (posterior mean)	58.79	21.24	51.73	20.65	53.66	19.41	51.27	19.99	55.77	20.01	54.52	20.44	-	-
PPI (posterior mean)	55.66	28.18	50.52	22.12	51.84	18.09	49.18	19.69	52.15	19.79	51.93	19.79	-	-
Wage Expectations	41.82	19.22	38.22	19.31	37.62	21.09	38.25	18.84	39.94	18.99	39.19	19.04	-	-
Unit Cost Expectations	40.93	25.85	37.68	19.92	39.26	21.67	37.71	22.02	38.67	20.83	38.95	22.26	-	-
Price Expectations	33.86	21.12	30.88	20.56	30.81	20.96	30.12	22.36	32.19	21.12	31.75	21.41	-	-
No of obs	303		257		274		291		271		1,396		129,041	

Notes: The table provides descriptive statistics for various firm characteristics of the survey participants. The sample is randomly selected and reflects the population of firms accurately. The sample is representative of the population of firms in terms of key variables such as employment, sales, assets, capital, age and other relevant characteristics. Assignment to treatment and control groups is based on stratified random sampling by sector, employment, and prior inflation expectations. The manufacturing firm column represents the entire universe of economically active manufacturing firms, in accordance with Turkey's Tax Procedure Law, are required to maintain balance sheet and income statements (The BTS is a subset drawn from this larger universe of firms).

Table 2: Expectation Formation Process

	Outcome: Forecast Revision					
	Treatment		One Month after Treatment		Two Months after Treatment	
	(1) CPI	(2) PPI	(3) CPI	(4) PPI	(5) CPI	(6) PPI
T1 (SPF expectations)	-6.14***	-1.91***	-0.72***	-0.63***	-0.97	0.08
	(1.31)	(0.92)	(0.26)	(0.27)	(1.05)	(1.06)
T2 (CBRT 1-y ahead forecast)	-3.08***	-2.12***	-0.74***	-0.62***	0.16	0.56
	(1.24)	(0.87)	(0.29)	(0.28)	(1.02)	(1.03)
T3 (CBRT 2-y ahead forecast)	-4.75***	-3.79***	-0.67***	-0.59***	-0.62	-0.53
	(1.21)	(1.01)	(0.28)	(0.26)	(0.99)	(1.01)
T4 (Inflation Target)	-2.89***	-1.87***	-0.55***	-0.51**	0.68	0.86
	(1.22)	(0.91)	(0.27)	(0.27)	(1.03)	(1.04)
Firm Controls	✓	✓	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓
R-Squared	0.58	0.56	0.28	0.26	0.17	0.18
Observations	1,181	1,181	1,160	1,160	1,151	1,151

Notes: The table presents the estimation results for the average treatment effect on both CPI and PPI expectations across each treatment group. The forecast revision is defined as the difference between posterior and prior inflation expectations ($\text{Posterior}_i - \text{Prior}_i$), measured immediately after the treatment, one month after the treatment, and two months after the treatment. Prior inflation expectations are based on May BTS firm data, while the posterior expectations are represented by the RCT survey in the first two columns, BTS June firm expectations for one month after the treatment, and BTS July firm expectations for two months after the treatment in the final two columns. The firm-level controls include age, leverage, employment, and production value. Notably, the effect disappears two months after the treatment. All regressions are estimated using the Huber robust method to account for outliers and influential observations. Robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table 3: Treatment Effects on Expectations

	CPI		PPI	
	(1) mean	(2) best	(3) mean	(4) best
Revisions in beliefs immediately after treatment				
Prior Mean	0.815***	0.830***	0.820***	0.856***
	(0.041)	(0.040)	(0.038)	(0.030)
Prior mean × T1	-0.287***	-0.312***	-0.403***	-0.439***
	(0.059)	(0.059)	(0.064)	(0.060)
Prior mean × T1	-0.240***	-0.297***	-0.303***	-0.325***
	(0.065)	(0.066)	(0.059)	(0.055)
Prior mean × T1	-0.117*	-0.128**	-0.233***	-0.244***
	(0.064)	(0.067)	(0.060)	(0.060)
Prior mean × T1	-0.141**	-0.150***	-0.200***	-0.220***
	(0.062)	(0.064)	(0.063)	(0.063)
T1 (SPF expectations)	9.939***	10.104***	10.334***	12.395***
	(3.479)	(3.439)	(3.668)	(3.489)
T2 (CBRT 1-y ahead forecast)	10.187***	10.232***	10.757***	11.828***
	(3.774)	(3.742)	(3.398)	(3.168)
T3 (CBRT 2-y ahead forecast)	0.662	11.586***	8.140**	10.330***
	(3.685)	(3.747)	(3.419)	(3.442)
T4 (Inflation Target)	7.100*	10.389***	10.323***	9.294***
	(3.705)	(3.773)	(3.492)	(3.499)
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
Observations	1,183	1,183	1,192	1,192
R-squared	0.72	0.76	0.73	0.75

Notes (Fact-1): The table reports estimation results for Equation-(1). The dependent variable, (Posterior$_i$), refers to CPI in Columns (1)-(2), and to PPI in Columns (3)-(4). The firm-level controls include age, leverage, employment, and production value. Mean and standard deviations are calculated based on triangular distributions. Four different treatments are applied. The mean and the standard deviation of prior inflation expectations are 58% and 18, respectively. All regressions are estimated using the Huber robust method to account for outliers and influential observations. Robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table 4: Treatment Effects on Expectations after one and two months

	One Month after Treatment		Two Months after Treatment	
	CPI	PPI	CPI	PPI
Prior mean	0.59***	0.62***	0.65***	0.68***
	(0.05)	(0.04)	(0.02)	(0.02)
Prior mean × T1	-0.08***	-0.12***	-0.02	0.03
	(0.04)	(0.05)	(0.03)	(0.02)
Prior mean × T2	-0.11***	-0.13***	-0.01	0.03
	(0.05)	(0.05)	(0.03)	(0.03)
Prior mean × T3	-0.13***	-0.14***	0.01	-0.04
	(0.07)	(0.05)	(0.02)	(0.03)
Prior mean × T4	-0.06	-0.05	0.01	-0.03
	(0.07)	(0.06)	(0.02)	(0.03)
T1 (SPF expectations)	-7.14***	-6.10***	1.23	-1.21
	(3.41)	(3.06)	(1.58)	(1.71)
T2 (CBRT 1-y ahead forecast)	-6.31***	-6.92***	0.69	-1.01
	(3.11)	(3.06)	(1.67)	(1.66)
T3 (CBRT 2-y ahead forecast)	-8.96***	-5.99***	-0.59	1.29
	(3.54)	(2.97)	(1.48)	(1.73)
T4 (Inflation Target)	-3.42	-2.51	0.69	1.65
	(4.06)	(3.17)	(1.64)	(1.82)
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
R-squared	0.71	0.68	0.66	0.67
Observations	1,160	1,160	1,151	1,151

Notes (Fact-1): The table presents the estimation results for Equation (1) one month and two months following the treatment. The posterior and prior are both represent the mean expectations for CPI and PPI. The firm-level controls include age, leverage, employment, and production value. Four different treatments are applied. The mean and the standard deviation of prior inflation expectations are 58% and 18, respectively. All regressions are estimated using the Huber robust method to account for outliers and influential observations. Robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table 5: Inflation Expectation Pass-Through to Firms' Wage, Unit Cost, Price Expectations and External Outlook

	Panel A: Pass-through to Wage, Cost, and Pricing Expectations		
	(1) Wage Expectations	(2) Unit Cost Expectations	(3) Price Expectations
Posterior Mean	0.58**	0.53***	0.55***
	(0.25)	(0.18)	(0.18)
Prior Perception	0.25***	0.10***	0.30***
	(0.05)	(0.03)	(0.03)
First Stage F-stat (KP Wald)	50.17	49.91	48.96
R-squared	0.25	0.32	0.30
Observations	1,189	1,187	1,183
	Panel B: Pass-through to Business Outlook and Credit Sentiment		
	(4) Firm Own Bussiness Expectations	(5) Economic Expectations	(6) Credit Conditions Expectations
Posterior Mean	0.014***	0.024***	0.012***
	(0.003)	(0.002)	(0.002)
Prior Perception	0.230***	0.263***	0.166***
	(0.032)	(0.030)	(0.039)
First Stage F-stat (KP Wald)	49.91	50.25	50.53
R-squared	0.12	0.17	0.10
Observations	1,173	1,187	1,169
Firm Controls	✓	✓	✓
Sector FE	✓	✓	✓
Province FE	✓	✓	✓

Notes (Fact-2 and 3): The table reports estimation results for Equation-(2). In Panel A, the dependent variables are wage, unit cost, and price expectations (in percent). In Panel B, dependent variables are qualitative expectations coded such that 1 = optimistic, 2 = neutral, and 3 = pessimistic. All specifications include firm controls (age, leverage, employment, and production), sector and province fixed effects. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table 6: Effects of Inflation Expectations on Credit (Flow) , Borrowing Cost and Credit Utilization Rate

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Credit				
Posterior Mean	0.024*	0.029**	0.014**	0.012
	(0.013)	(0.011)	(0.007)	(0.009)
First Stage F-stat (KP Wald)	39.25	40.33	41.12	41.12
R-squared	0.02	0.03	0.03	0.02
Observations	1,159	1,161	1,160	1,160
Panel B: Effect on Borrowing Cost				
Posterior Mean	-0.037**	-0.018	-0.003***	-0.003***
	(0.016)	(0.015)	(0.001)	(0.001)
First Stage F-stat (KP Wald)	23.01	21.51	21.88	16.75
R-squared	0.10	0.04	0.08	0.09
Observations	569	543	514	550
Panel C: Effect on Credit Utilization Rate				
Posterior Mean	0.013***	0.010***	-0.001	-0.001
	(0.002)	(0.002)	(0.001)	(0.001)
First Stage F-stat (KP Wald)	42.09	45.69	44.34	45.93
R-squared	0.12	0.12	0.11	0.13
Observations	1,167	1,163	1,164	1,159
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

Notes: The table reports estimation results for Equation-(2). In Panel A, the dependent variable is defined as $y_{it+h} = \log\left(\frac{cr_{i,t+h}}{cr_{i,t-1}}\right)$, where $cr_{i,t+h}$ represents the flow credit amount at time $t+h$. In Panel B, the dependent variable is the weighted average interest rate charged on flow credits at time $t+h$, $y_{it+h} = r_{i,t+h}$. In Panel C, the dependent variable is the credit utilization rate, defined as the ratio of total credit used to the total credit line at time $t+h$, $y_{i,t+h} = \frac{cr_{i,t+h}}{c.linei,t+h}$. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table 7: Effects of Inflation Expectations on Short-Term and Long-Term Borrowing (Flow)

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
	Panel A: Effect on Long-term Credit			
Posterior Mean	0.047***	0.039***	0.028***	0.002
	(0.005)	(0.005)	(0.004)	(0.002)
R-squared	0.26	0.27	0.24	0.22
First Stage F-stat (KP Wald)	42.40	40.19	40.64	39.82
Observations	1,165	1,163	1,162	1,166
	Panel B: Effect on Short-term Credit			
Posterior Mean	-0.027***	-0.033***	-0.001	0.001
	(0.004)	(0.003)	(0.001)	(0.001)
R-squared	0.19	0.17	0.18	0.17
First Stage F-stat (KP Wald)	41.68	42.64	45.11	39.19
Observations	1,169	1,168	1,163	1,161
	Panel C: Effect on Long-term Borrowing Cost			
Posterior Mean	0.028*	0.017*	0.029**	0.024
	(0.016)	(0.009)	(0.014)	(0.020)
R-squared	0.12	0.12	0.11	0.13
First Stage F-stat (KP Wald)	12.15	12.09	11.42	12.56
Observations	235	234	217	238
	Panel D: Effect on Short-term Borrowing Cost			
Posterior Mean	-0.028***	-0.032***	-0.053**	0.013
	(0.007)	(0.008)	(0.023)	(0.020)
R-squared	0.12	0.12	0.11	0.13
First Stage F-stat (KP Wald)	15.25	14.71	14.26	13.95
Observations	293	283	257	300
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

Notes: This table presents the estimation results for Equation-(2). In Panel A and B, the dependent variable is defined as $y_{it+h} = \log\left(\frac{cr_{i,t+h}}{cr_{i,t-1}}\right)$, where $cr_{i,t+h}$ represents the long-term and short-term flow credit amount at time $t+h$, respectively. In Panel C and D, the dependent variable is the weighted average interest rate charged on flow long-term and short-term credits at time $t+h$, $y_{it+h} = r_{i,t+h}$. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table 8: Effects of Inflation Expectations on Outstanding Credit Composition

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
	Panel A: Effect on Total Outstanding Credit			
Posterior Mean	0.030***	0.038***	0.008**	0.001
	(0.009)	(0.008)	(0.003)	(0.002)
R-squared	0.06	0.05	0.05	0.03
First Stage F-stat (KP Wald)	38.75	39.26	38.10	37.35
Observations	1,165	1,167	1,162	1,163
	Panel B: Effect on Long-term Outstanding Credit			
Posterior Mean	0.083***	0.041***	0.015	0.021
	(0.013)	(0.012)	(0.017)	(0.019)
R-squared	0.05	0.07	0.06	0.06
First Stage F-stat (KP Wald)	37.85	36.52	39.87	49.89
Observations	1,162	1,160	1,161	1,165
	Panel C: Effect on Short-term Outstanding Credit			
Posterior Mean	-0.026***	-0.021***	-0.001	-0.002*
	(0.007)	(0.006)	(0.002)	(0.001)
R-squared	0.04	0.03	0.02	0.06
First Stage F-stat (KP Wald)	39.40	42.07	40.30	44.65
Observations	1,168	1,162	1,162	1,164
	Panel D: Effect on TL Denominated Outstanding Credit			
Posterior Mean	0.058***	0.012	0.034***	0.015
	(0.013)	(0.009)	(0.013)	(0.014)
R-squared	0.05	0.05	0.07	0.06
First Stage F-stat (KP Wald)	39.67	37.63	44.31	43.19
Observations	1,164	1,161	1,171	1,165
	Panel E: Effect on FX Denominated Outstanding Credit			
Posterior Mean	-0.018***	-0.019***	-0.011***	0.006
	(0.006)	(0.004)	(0.003)	(0.005)
R-squared	0.05	0.05	0.05	0.04
First Stage F-stat (KP Wald)	46.02	43.34	45.89	39.45
Observations	1,169	1,168	1,158	1,160
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

Notes: This table presents the estimation results for Equation-(2). In each panel, the dependent variable is defined as $y_{it+h} = \log\left(\frac{X_{i,t+h}}{X_{i,t-1}}\right)$, where $X_{i,t+h}$ represents the total outstanding credit amount in Panel A, long-term credits in Panel B, short-term credits in Panel C, TL-denominated credits in Panel D, and foreign currency-denominated credits in Panel E, respectively, all at time $t+h$. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table 9: Effect of Inflation Expectations on Foreign Currency Trading Behavior

	(1)	(2)	(3)	(4)
	$y_{i,t+1}$	$y_{i,t+2}$	$y_{i,t+3}$	$y_{i,t+4}$
Panel A: Effect on Foreign Currency Purchases				
Posterior Mean	0.025^{***}	0.026^{**}	0.023^{*}	0.020
	(0.008)	(0.014)	(0.014)	(0.016)
R-squared	0.08	0.07	0.07	0.08
Panel B: Effect on Foreign Currency Selling				
Posterior Mean	-0.029^{***}	-0.031^{**}	-0.028^{***}	-0.029
	(0.011)	(0.015)	(0.016)	(0.019)
R-squared	0.09	0.09	0.08	0.11
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
First Stage F-stat (KP Wald)	57.77	55.41	55.49	50.58
Observations	1,167	1,163	1,164	1,159

Notes: The table reports estimation results for Equation-(2). In Panels A and B, the dependent variables are $y_{it+h} = \log\left(\frac{s_{i,t+h}}{s_{i,t-1}}\right)$ and $y_i = \log\left(\frac{b_{i,t+h}}{b_{i,t-1}}\right)$, where $s_{i,t+h}$ and $b_{i,t+h}$ correspond to the purchasing and selling of foreign currency at time $t+h$, respectively. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table 10: Effects of Inflation Expectations on Real Outcomes

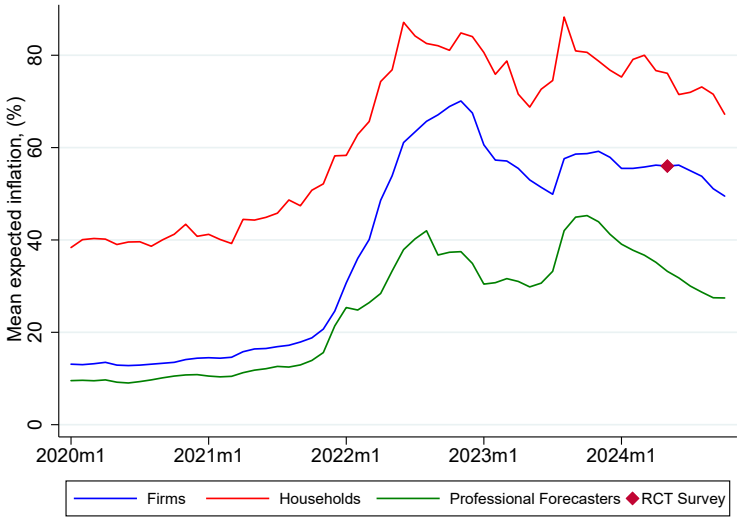
	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Sales				
Posterior Mean	-0.011^{**}	-0.021^{*}	-0.010	-0.009
	(0.006)	(0.010)	(0.015)	(0.010)
R-squared	0.07	0.11	0.09	0.08
Panel B: Effect on Number of Customers				
Posterior Mean	-0.013^{***}	-0.013^{***}	-0.014^{***}	-0.013^{***}
	(0.003)	(0.003)	(0.003)	(0.003)
R-squared	0.44	0.36	0.47	0.29
Panel C: Effect on Purchases				
Posterior Mean	0.004^{*}	0.010^{***}	0.009^{***}	0.005
	(0.002)	(0.003)	(0.003)	(0.003)
R-squared	0.18	0.15	0.16	0.15
Panel D: Effect on Number of Suppliers				
Posterior Mean	0.007^{**}	0.010^{***}	0.008^{**}	0.008^{*}
	(0.003)	(0.004)	(0.004)	(0.005)
R-squared	0.55	0.54	0.48	0.55
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
First Stage F-stat (KP Wald)	53.18	53.56	51.61	52.58
Observations	1,159	1,159	1,158	1,157

Notes: This table presents the estimation results for Equation-(2). The dependent variable in Panels A, B, C and D is defined as $y_{it+h} = \log\left(\frac{X_{i,t+h}}{X_{i,t-1}}\right)$, where $X_{i,t+h}$ denotes sales, number of buyers, purchases and number of sellers at time $t+h$, respectively. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

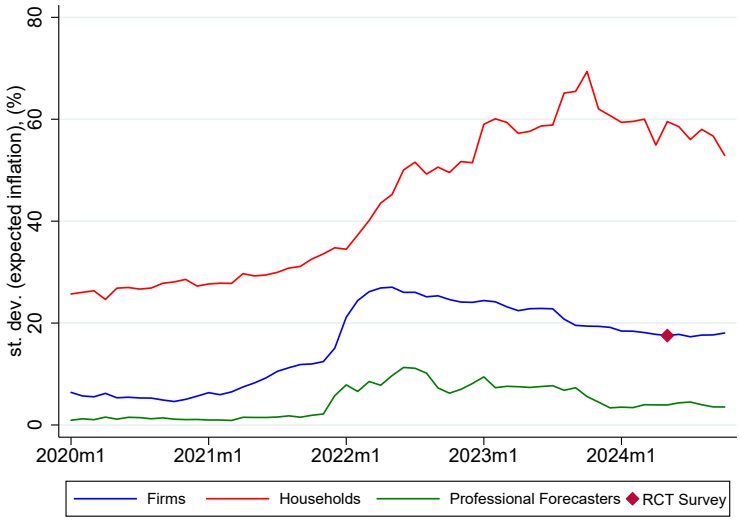
Table 11: Effects of Inflation Expectations on Employment, New Hirings and Wages

	(1)	(2)	(3)	(4)
	$y_{i,t+1}$	$y_{i,t+2}$	$y_{i,t+3}$	$y_{i,t+4}$
Panel A: Effect on Employment				
Posterior Mean	-0.012^{***}	-0.011^{***}	-0.012^{***}	-0.010^{***}
	(0.004)	(0.004)	(0.004)	(0.004)
R-squared	0.08	0.06	0.06	0.07
Panel B: Effect on New Hirings				
Posterior Mean	-0.007^{**}	-0.002	-0.005	-0.008^{**}
	(0.003)	(0.004)	(0.004)	(0.004)
R-squared	0.06	0.05	0.06	0.05
Panel C: Effect on Wages				
Posterior Mean	0.005	0.006^{**}	0.009^{*}	0.006
	(0.005)	(0.003)	(0.005)	(0.005)
R-squared	0.05	0.04	0.05	0.05
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
First Stage F-stat (KP Wald)	53.18	53.56	51.61	52.58
Observations	1,159	1,159	1,158	1,157

Notes: This table presents the estimation results for Equation-(2). The dependent variable in Panels A, B and C is defined as $y_{it+h} = \log\left(\frac{X_{i,t+h}}{X_{i,t-1}}\right)$, where $X_{i,t+h}$ denotes employment, number of new hirings and wages at time $t+h$, respectively. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.



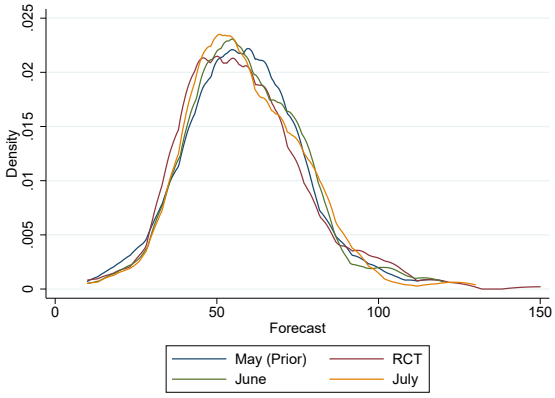
(a) Mean Expected Inflation



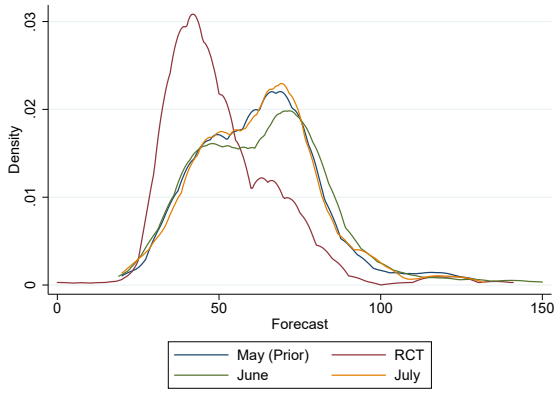
(b) Disagreement in Expected Inflation

Figure 1: One-Year-Ahead Inflation Expectations of Households, Firms, and Professionals

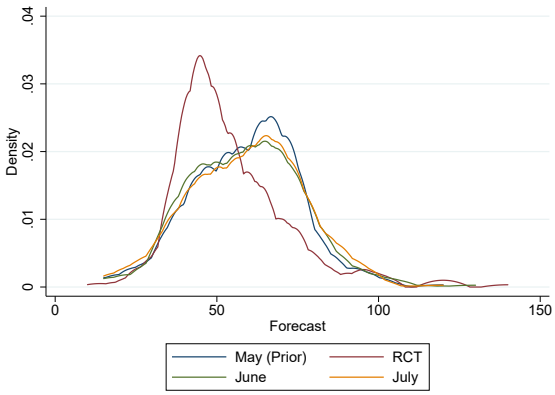
Notes: The figure presents the time series of one-year-ahead inflation expectations for households, firms, and professionals. The term "RCT survey" refers to the survey conducted in May 2024, with the prior expected inflation in the survey represented by a red diamond in the graph.



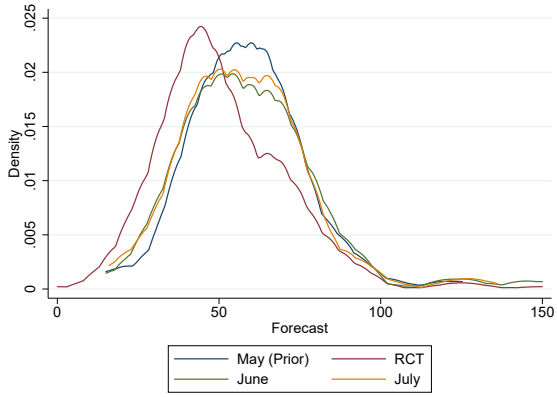
(a) Control



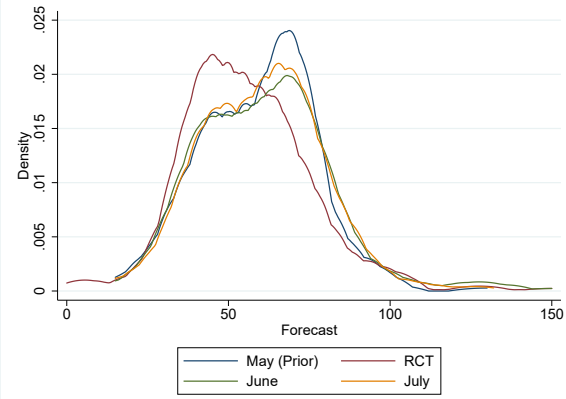
(b) Treatment #1



(c) Treatment #2



(d) Treatment #3



(e) Treatment #4

Figure 2: CPI Forecast

Notes: "RCT survey" refers to the survey conducted in May 2024. "BTS surveys" are conducted regularly by the CBRT, and we retrieved prior expectations from the May edition. The forecasts represent inflation (CPI) expectations for the next 12 months. Kernel densities of inflation expectations are displayed for each treatment group.

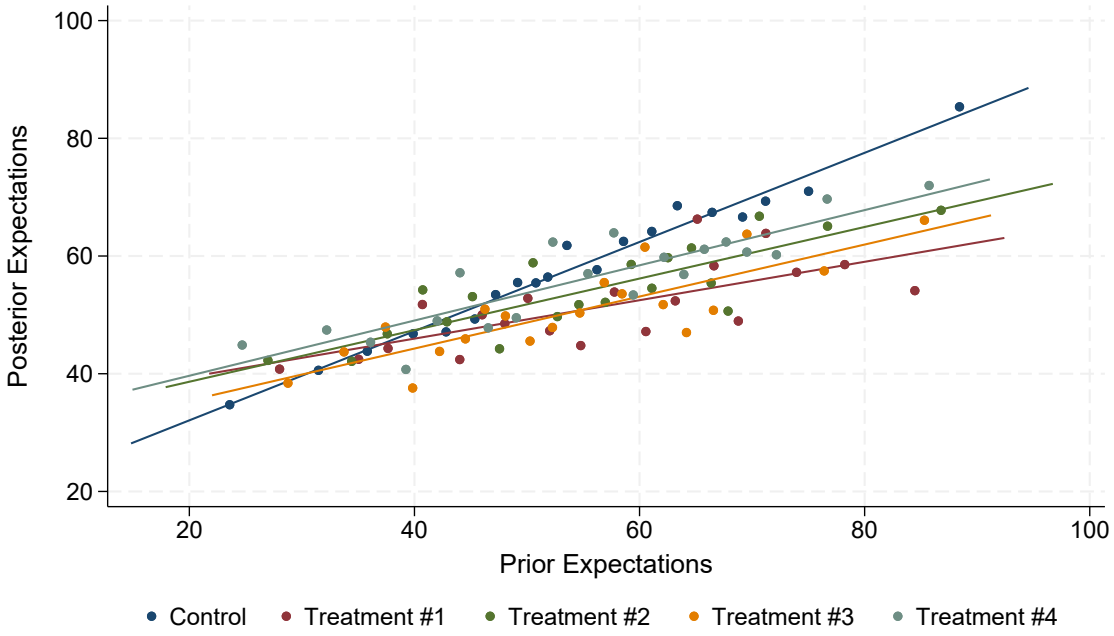
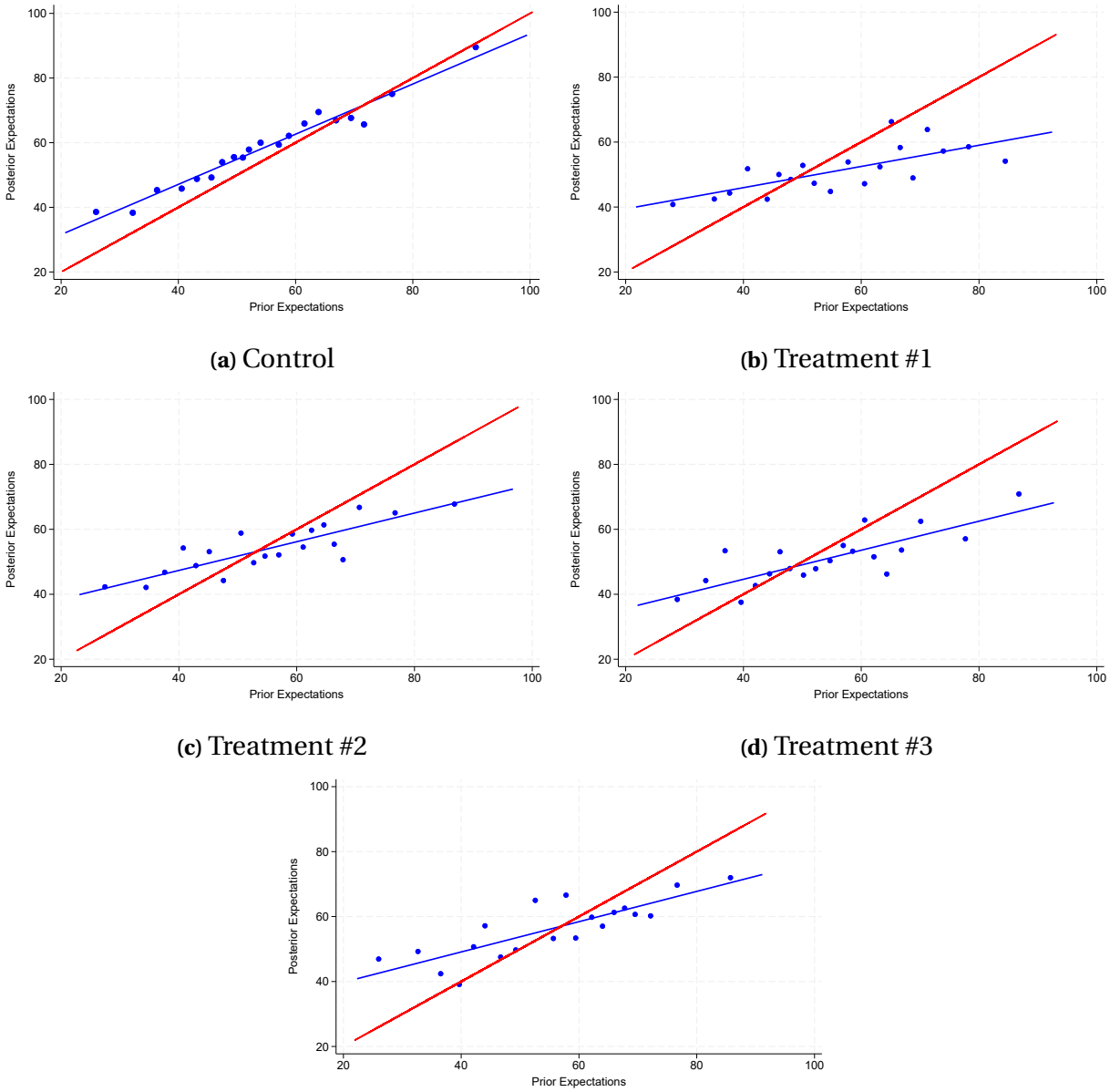


Figure 3: Response of Inflation Expectations by Treatment Type

Notes: Each panel presents a scatterplot of post-treatment inflation expectations and pre-treatment inflation expectations, both are implied mean from the reported expectation distribution of firms, by treatment group.



(a) Control

(b) Treatment #1

(c) Treatment #2

(d) Treatment #3

(e) Treatment #4

Figure 4: Relationship between Prior and Posterior CPI Beliefs for Control/Treatment Groups

Notes: Each panel presents a scatterplot of post-treatment inflation expectations and pre-treatment inflation expectations, both are implied mean from the reported expectation distribution of firms, by treatment group. The blue line is the 45-degree line. The red line is the fitted line.

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Appendix - A - BTS and RCT Detailed Questionnaire

BTS Detailed Questionnaire

The BTS (Business Tendency Survey) collects data through monthly surveys of a representative sample of 1,800 to 2,200 manufacturing firms, since 2007. The questions from the BTS translated from Turkish are provided below:

Question 1: The production volume of your company over the last three month: Increased, Stayed the same, Decreased.

Question 2: The total amount of your currently registered orders: Above normal, Normal for the season, Below normal.

Question 3: The amount of your currently registered export orders: Above normal, Normal for the season, Below normal.

Question 4: The level of your current finished goods inventory: Above normal, Normal for the season, Below normal.

Question 5: Your production volume expectation for the next three months: It will increase, It will remain the same, It will decrease.

Question 6: Your sales price expectation for the next three months: It will increase, It will remain the same, It will decrease.

Question 7: Your total employment expectation for the next three months: It will increase, It will remain the same, It will decrease.

Question 8: The total amount of orders you received in the last three months: Increased, Stayed the same, Decreased.

Question 9: Your total order quantity expectation for the next three months: It will increase, It will remain the same, It will decrease.

Question 10: The amount of export orders you received in the last three months: Increased, Stayed the same, Decreased.

Question 11: Your export order quantity expectation for the next three months: It will increase,

It will remain the same, It will decrease.

Question 12: Your capacity utilization rate (Please indicate the actual capacity utilization as a percentage of physical capacity at present.)

Question 13: The amount of your currently registered domestic market orders: Above normal, Normal for the season, Below normal.

Question 14: The amount of domestic market orders you received in the last three months: Increased, Stayed the same, Decreased.

Question 15: Your domestic market order quantity expectation for the next three months: It will increase, It will remain the same, It will decrease.

Question 16: Your domestic market sales price expectation for the next three months: It will increase, It will remain the same, It will decrease.

Question 17: Compared to the past twelve months, your expectation for fixed capital investment expenditures in the next twelve months: It will increase, It will remain the same, It will decrease.

Question 18: Your average unit cost over the last three months: Increased, Stayed the same, Decreased.

Question 19: Your expectation for the average unit cost in the next three months: It will increase, It will remain the same, It will decrease.

Question 20: Your annual inflation expectation at the end of the next twelve-month period (Please specify as a percentage): (CPI:...) (PPI:...)

Question 21 :Your expectation for the short-term Turkish Lira interest rate in the upcoming three-month period: It will increase, It will remain the same, It will decrease.

Question 22: Your opinion on the general trend in your industry compared to a month ago: More optimistic, The same, More pessimistic.

RCT-Survey Detailed Questionnaire

The survey, designed with an information RCT structure, was conducted in May 2024 using the official digital system utilized by the Business Tendency Survey.

Question 1: In the past 12 months:

Q1.1 What percentage do you think prices have changed? (Annual CPI inflation rate)

Q1.2 What percentage have your main product prices changed?

Q1.3 What percentage have your company employees' salaries changed?

(After the first question, we provide treatment information to each of the treatment groups.)

- **Group 1 (control)**: No information is provided.
- **Group 2**: *"According to the results of the Market Participants Survey for May 2024: The participants' expectation for the Consumer Price Index (CPI) 12 months from now is 33.21%. In other words, professionals expect general prices to increase by 33.21% over the next 12 months."*
- **Group 3**: *"According to the Central Bank of the Republic of Turkey's Inflation Report for May 2024: The Central Bank predicts that annual inflation will be 38% by the end of 2024. In other words, the Central Bank expects general prices to increase by 38% in 2024."*
- **Group 4**: *"According to the Central Bank of the Republic of Turkey's Inflation Report for May 2024: The Central Bank predicts that annual inflation will be 14% by the end of 2025. In other words, the Central Bank expects general prices to increase by 14% in 2025."*
- **Group 5**: *"Within the framework of the inflation targeting regime, the Central Bank's inflation target is 5%. In other words, the Central Bank aims for the general price level to rise by approximately 5% annually in the medium term."*

Question 2: What is your expectation for the Consumer Price Index (CPI) inflation rate at the end of the next 12 months? In other words, how much do you think the general level of consumer prices will increase over the next 12 months? Additionally, what are your lowest (optimistic) and highest (pessimistic) inflation rate estimates at the end of the next 12 months? (Please specify as a

percentage.)

Q2.1 At the end of the next 12 months, my annual (CPI) inflation estimate is:

Q2.2 My lowest (most optimistic) inflation (CPI) estimate is:

Q2.3 My highest (most pessimistic) inflation (CPI) estimate is:

Question 3: What is your expectation for the Producer Price Index (PPI) inflation rate at the end of the next 12 months? In other words, how much do you think the general level of producer prices will increase over the next 12 months? Additionally, what are your lowest (optimistic) and highest (pessimistic) inflation rate estimates at the end of the next 12 months? (Please specify as a percentage.)

Q3.1 At the end of the next 12 months, my annual (PPI) inflation estimate is:

Q3.2 My lowest (most optimistic) inflation (PPI) estimate is:

Q3.3 My highest (most pessimistic) inflation (PPI) estimate is:

Question 4: Compared to today, in what direction and by what percentage (%) do you expect the salaries of company employees to change by the end of the next 12-month period?

Question 5: Compared to today, in what direction and by what percentage (%) do you expect your company's unit cost to change by the end of the next 12-month period?

Question 6: Compared to today, in what direction and by what percentage (%) do you expect your company's employment to change by the end of the next 12-month period?

Question 7: Compared to today, in what direction and by what percentage (%) do you expect the prices of your main products to change by the end of the next 12-month period?

Question 8: Compared to today, disregarding price effects, in what direction and by what percentage (%) do you expect the quantity of export orders to change in real terms by the end of the next 12-month period?

Question 9: Compared to today, disregarding price effects, in what direction and by what percentage (%) do you expect the quantity of domestic market orders to change in real terms by the end of the next 12-month period?

Question 10: How many times do you plan to change your main product prices in the next 12-

month period?

Question 11: Compared to today, how difficult do you think it will be to obtain credit conditions or secure a new loan in the next 12-month period? (Easier, The same, Harder)

Question 12: Compared to today, your expectation for the general trend of your company in the next 12-month period: (Much more optimistic, more optimistic, the same, more pessimistic, much more pessimistic)

Question 13: Compared to today, your expectation for the general trend of the country's economy in the next 12-month period: (Much more optimistic, more optimistic, the same, more pessimistic, much more pessimistic)

Question 14: Compared to today, in what direction do you plan to change your profit margin in the next 12-month period? (I will decrease it, It will remain the same, I will increase it)

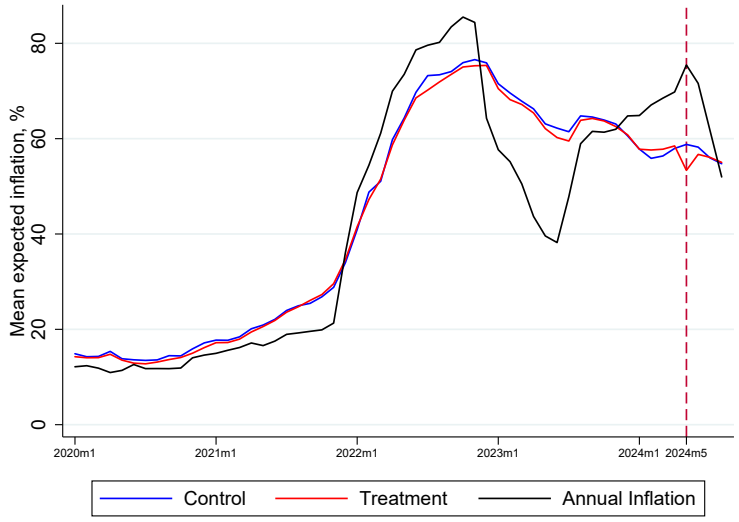
Appendix - B - Assignment into Treatment

We categorized the firms in the sample based on three self-reported dimensions: two-digit sectoral classification, number of employees, and sales. Using these dimensions, we divided the sample into five distinct groups. To ensure balanced treatment assignment, we stratified the randomization process across these dimensions. This method reduces potential biases by maintaining comparability between the treatment and control groups. To ensure that the selection of firms into treatment and control groups was genuinely random, we performed a regression analysis using a dummy variable indicating whether a firm was treated as the dependent variable. The independent variables included observable firm characteristics, such as size (log of the number of employees), export share (exports as a percentage of total sales), profit margin (ratio of net profits to sales), leverage ratio (total debt-to-total assets), along with sector and province fixed effects. The regression results, presented in Table-B1, reveal that none of the observable characteristics are statistically significantly correlated with being assigned to the treatment group. Additionally, the constant term remains consistent across specifications, ranging between 0.77 and 0.79. This indicates that, on average, approximately 80% of firms were treated, and this proportion does not change when controlling for firm characteristics. These findings confirm that the treatment of firms was randomly assigned, adhering to the proportions targeted in the survey. Figure-B1 illustrates how inflation expectations for the control group and treatment group overlap before the treatment.

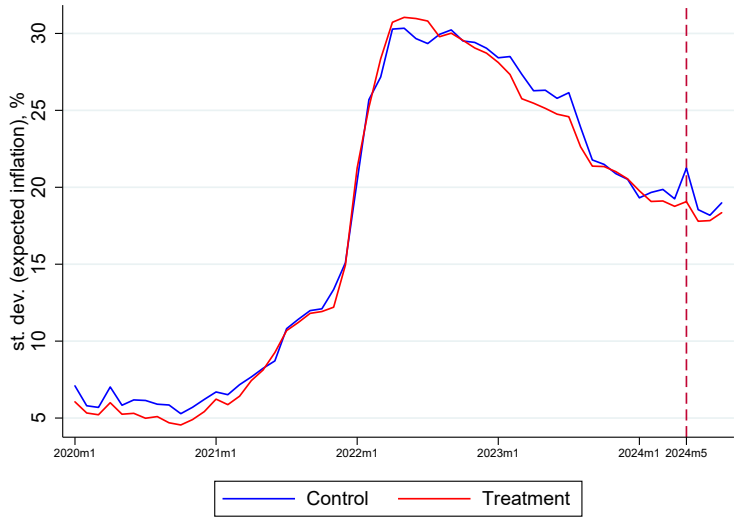
Table B1: Assignment into Treatment

	Dependent Variable: Treatment dummy				
	(1)	(2)	(3)	(4)	(5)
Number of Employees	0.006	0.005	0.005	0.006	0.002
	(0.008)	(0.008)	(0.009)	(0.009)	(0.009)
Age		0.009	0.009	0.010	0.013
		(0.019)	(0.018)	(0.019)	(0.021)
Export Share			-0.001	-0.002	-0.002
			(0.002)	(0.002)	(0.002)
Profit Margin			0.009	0.014	0.015
			(0.038)	(0.039)	(0.036)
Leverage			0.002	0.001	0.001
			(0.004)	(0.005)	(0.006)
Constant	0.771***	0.784***	0.793***	0.791***	0.792***
	(0.046)	(0.071)	(0.069)	(0.062)	(0.059)
Sector FE				✓	✓
Province FE					✓
R-squared	0.0004	0.0006	0.0006	0.0007	0.0009
Observations	1,390	1,390	1,390	1,390	1,390
p-value (F-stat)	1.000	0.782	0.924	1.0000	0.964

Notes: The table presents results from a linear regression where the dependent variable is binary, set to 1 if a firm is treated and 0 otherwise. Since group assignment (treatment or control) is fixed and cannot change after the initial assignment, all regressors represent averages over the survey period. The p-value (F-statistic) indicates the probability that all non-constant regressors have zero coefficients. *** p<0.01, ** p<0.05, * p<0.1



(a) Mean Expected Inflation



(b) Disagreement in Expected Inflation

Figure B1: Time Series of Inflation Expectations

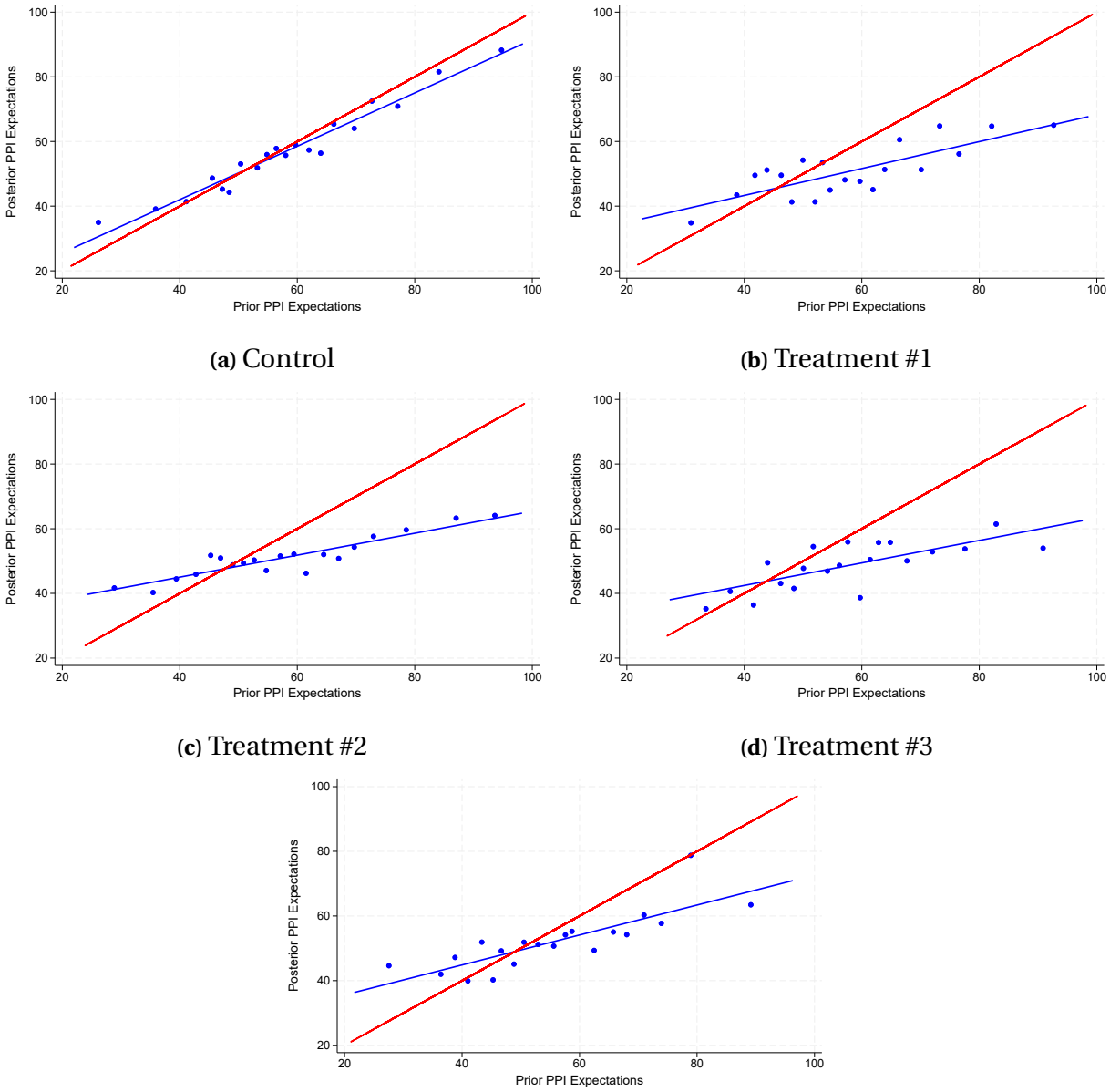
Notes: The figure displays the time series of inflation expectations for both the treatment and control groups, along with the actual inflation reported by the Turkish Statistical Institute (TURKSTAT).

Appendix - C - Determinants of Inflation Expectations

Table C1: Determinants of Inflation Expectations

	CPI			PPI		
	All Sample	Large Firms	SMEs	All Sample	Large Firms	SMEs
Sales	-0.09***	-0.04**	-0.10***	-0.07**	-0.04**	-0.12***
	(0.03)	(0.02)	(0.04)	(0.04)	(0.02)	(0.05)
Number of Employees	-0.30***	-0.22***	-0.80**	-0.33***	-0.44***	-0.53***
	(0.07)	(0.09)	(0.11)	(0.08)	(0.11)	(0.14)
Capacity Utilization	0.03***	0.02**	0.04***	0.04**	0.03***	0.05***
	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)
Age	-1.03***	-1.90***	-0.85***	-1.13***	-1.73***	-0.79***
	(0.18)	(0.30)	(0.25)	(0.22)	(0.38)	(0.29)
Exporter	-0.23**	-0.45**	-0.20**	-0.21**	-0.81***	-0.19**
	(0.11)	(0.19)	(0.10)	(0.10)	(0.16)	(0.09)
Return on Assets	0.04***	0.03***	0.05***	0.05***	0.04**	0.05***
	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)
Leverage	0.09***	0.07***	0.10***	0.07***	0.05***	0.09***
	(0.02)	(0.02)	(0.03)	(0.01)	(0.01)	(0.02)
Economic Expectation						
Optimistic	-0.49***	-0.59***	-0.41***	-0.69***	-0.67***	-0.74***
	(0.06)	(0.10)	(0.08)	(0.08)	(0.13)	(0.10)
Pessimistic	1.87***	2.00***	1.57***	2.02***	2.30***	1.64***
	(0.06)	(0.09)	(0.07)	(0.07)	(0.12)	(0.09)
Sales Price Expectation						
Increase	0.69***	0.56***	0.70***	1.05***	0.89***	1.09***
	(0.05)	(0.08)	(0.07)	(0.07)	(0.11)	(0.09)
Decrease	-0.30***	-0.20**	-0.42***	-0.35***	-0.18**	-0.38***
	(0.09)	(0.10)	(0.12)	(0.12)	(0.08)	(0.12)
Unit Cost Expectation						
Increase	0.55***	0.56***	0.50***	0.79***	0.87***	0.67***
	(0.05)	(0.07)	(0.06)	(0.06)	(0.10)	(0.08)
Decrease	-0.21*	-0.02	-0.30**	-0.33**	-0.15	-0.36**
	(0.11)	(0.16)	(0.14)	(0.13)	(0.21)	(0.17)
Production Volume Expectation						
Increase	-0.45***	-0.40***	-0.45***	-0.58***	-0.38***	-0.64***
	(0.05)	(0.07)	(0.06)	(0.06)	(0.10)	(0.08)
Decrease	0.66***	0.73***	0.63***	0.71***	0.82***	0.61***
	(0.06)	(0.10)	(0.08)	(0.08)	(0.13)	(0.10)
Firm FE	✓	✓	✓	✓	✓	✓
Sector x Year-Month FE	✓	✓	✓	✓	✓	✓
Year-Month FE	✓	✓	✓	✓	✓	✓
Province FE	✓	✓	✓	✓	✓	✓
R-squared	0.78	0.78	0.79	0.75	0.75	0.76
Observations	239,114	104,700	134,114	239,114	104,700	134,114

Notes: Entries represent coefficient estimates and standard errors from estimating the regression $y_{it} = \beta_0 + \Gamma X_{it} + \Pi Z_{i,t} + \alpha_i + \delta_{s,t} + \lambda_t + \phi_p + \varepsilon_{i,t}$, where the dependent variable y_{it} is the expectation for the annual consumer price index (CPI) at the end of the upcoming 12-month period, X_{it} represents firm-specific characteristics for firm i at year-month t, and $Z_{i,t}$ includes the firm's expectations about the overall economy, sales price, unit cost, and production volume over the next three months. The terms α_i, $\delta_{s,t}$, λ_t, and ϕ_p denote the firm, sector × year-month, year-month, and province fixed effects, respectively. Standard errors, clustered by firm, in parentheses. The sample covers all available BTS data, from 2009M1 to 2024M9. CPI and PPI expectations are reported separately. ***p<0.01, **p<0.05, *p<0.1.



(a) Control

(b) Treatment #1

(c) Treatment #2

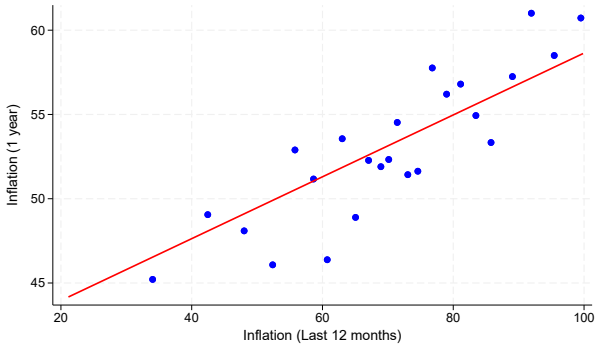
(d) Treatment #3

(e) Treatment #4

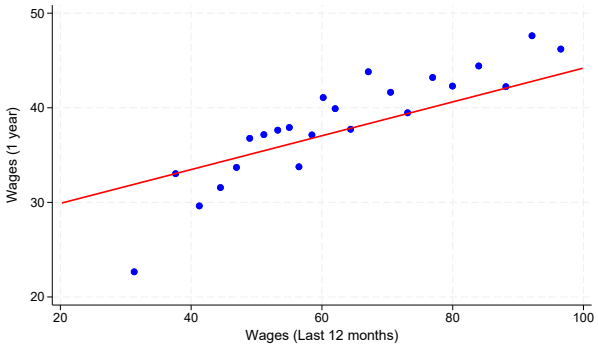
Figure C1: Relationship between Prior and Posterior PPI Beliefs for Control/Treatment Groups

Notes: Each panel presents a scatterplot of post-treatment PPI inflation expectations and pre-treatment PPI inflation expectations, both are implied mean from the reported expectation distribution of firms, by treatment group. The blue line is the 45-degree line. The red line is the fitted line.

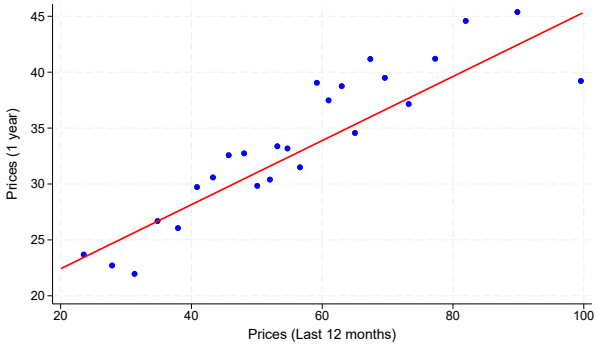
Appendix - D- Correlation of Firms' Perceptions and Expectations



(a) Perceived and Expected Inflation



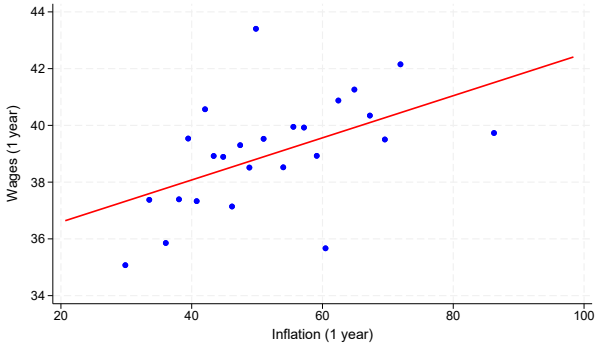
(b) Perceived and Expected Wages



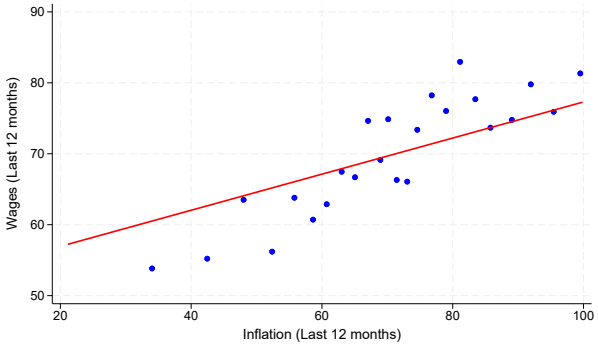
(c) Perceived and Expected Prices

Figure D1: Correlation of Perceived and Expected Inflation, Wages and Prices

Notes: The figure plots firms' perceptions of inflation over the past 12 months against their expectations of inflation for the next 12 months (Panel A). Similarly, it presents firms' perceptions of wage growth over the last 12 months compared to their expectations of wage growth for the next 12 months (Panel B), as well as firms' perceptions of prices over the past 12 months against their expectations of prices for the next 12 months (Panel C).



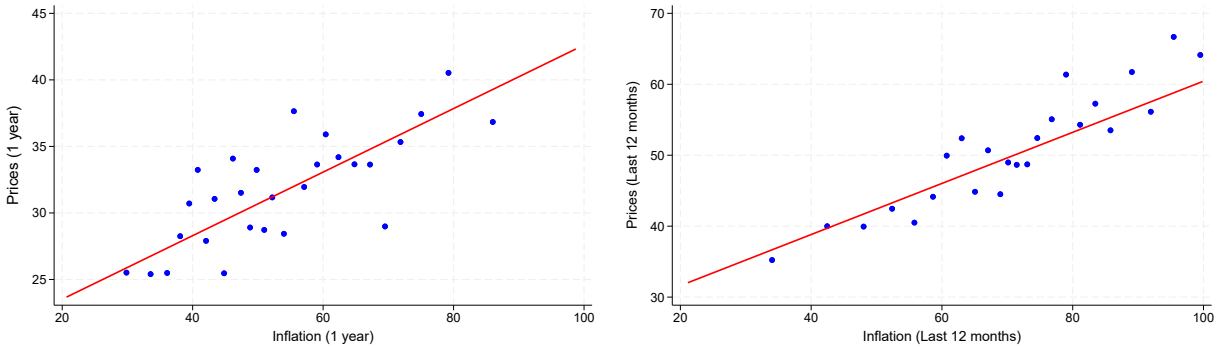
(a) Inflation and Wage Expectations



(b) Inflation and Wage Perceptions

Figure D2: Correlations of Firms' Inflation and Wage Expectations-Perceptions

Notes: The figure plots firm-level expectations (Panel A) and perceptions (Panel B) for wage growth and inflation.

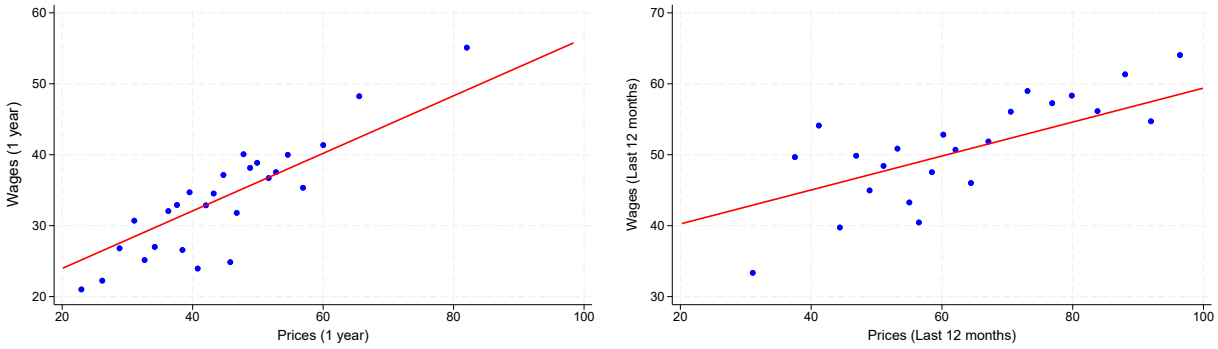


(a) Inflation and Price Expectations

(b) Inflation and Price Perceptions

Figure D3: Correlations of Firms' Inflation and Price Expectations-Perceptions

Notes: The figure plots firm-level expectations (Panel A) and perceptions (Panel B) for price and inflation.

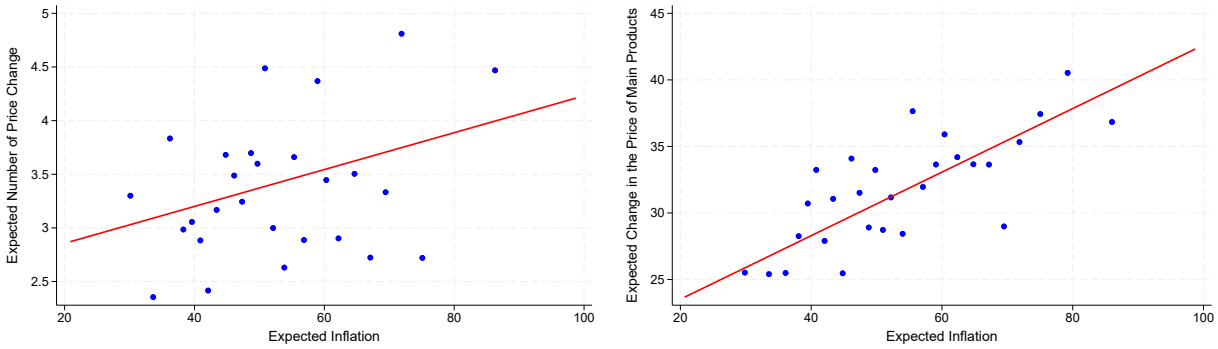


(a) Price and Wage Expectations

(b) Price and Wage Perceptions

Figure D4: Correlations of Firms' Price and Wage Expectations-Perceptions

Notes: The figure plots firm-level expectations (Panel A) and perceptions (Panel B) for wages and prices.

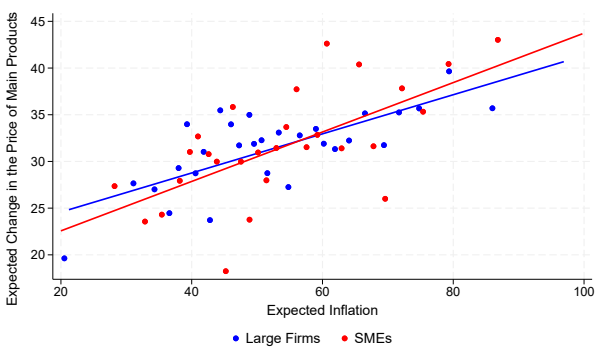


(a) Expected Number of Price Changes and Expected Inflation

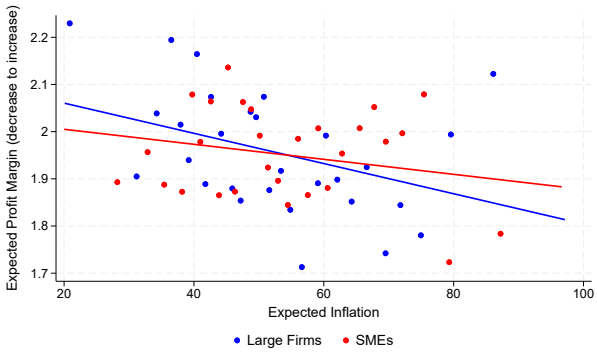
(b) Expected Price change and Expected Inflation

Figure D5: Expected Change in the Prices of Main Products and Expected Inflation

Notes: The figure plots firm-level expectations (Panel A) and perceptions (Panel B) for wages and prices.



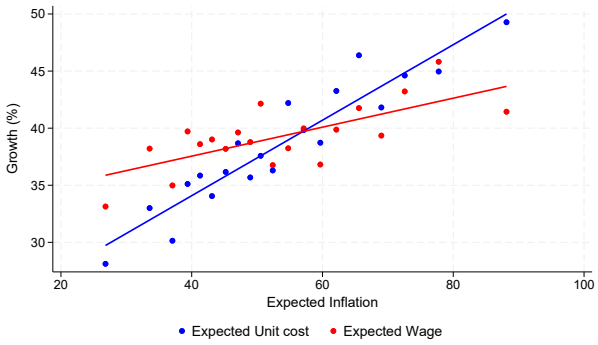
(a) Expected Number of Price Changes and Expected Inflation, by firm size



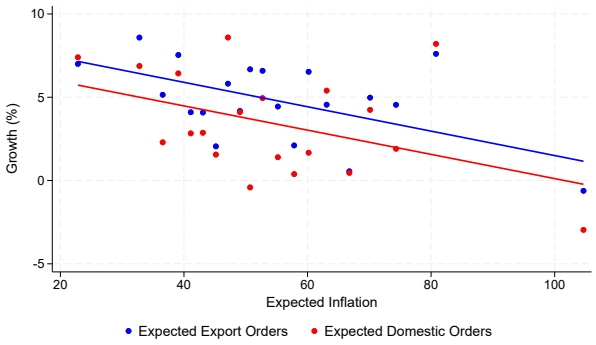
(b) Expected Profit Margin and Expected Inflation, by firm size

Figure D6: Expected Change in the Prices of Main Products and Profit Margin, by firm size

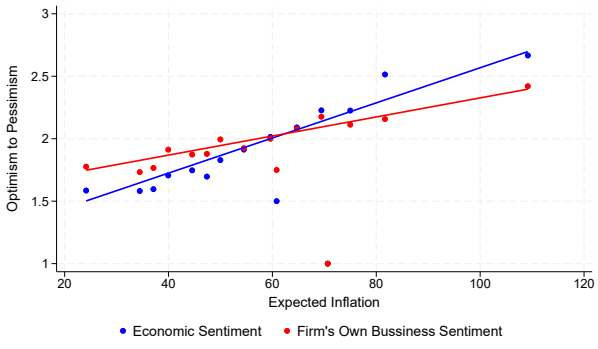
Notes: The figure plots firm-level expectations for expected change in the prices of the main products and profit margin. In Panel b, the scale for expected profit margins is defined as 1 for a decrease, 2 for remaining constant, and 3 for an increase.



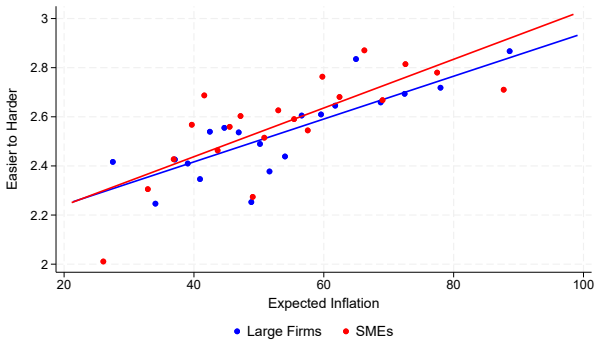
(a) Expected Wage and Unit Cost



(b) Expected Export and Domestic Orders



(c) Expected Firms' Economic and Own Business Outlook



(d) Expected Financial Conditions, by firm size

Figure D7: Firms' Inflation Expectations and Economic Indicator Expectations

Notes: The figure plots binscatter of firms' pricing expectations for the next 12 months against their expectations of inflation for the next 12 months. In Panel c, the scale for pessimism ranges from 1 to 3, where 1 represents optimism and 3 represents pessimism. In panel d, the scale for financial conditions ranges from 1 to 3, where 1 represents easier and 3 represents harder.

Appendix - F - Placebo Test: Stability of Credit Supply

To assess whether credit availability changed in after the RCT, we implement a placebo analysis using firm-level data on total credit lines. In particular, we examine whether firms' credit lines evolved differentially across treated and control groups following the RCT.

We construct a panel dataset consisting of two periods for each firm: a pre-treatment baseline ($t = 0$, April) and a post-treatment period defined as $t = h \in \{1,2,3,4\}$, corresponding to the first four months after the RCT. We estimate the following difference-in-differences specification for each horizon h, as well as for the full panel that pools all post-treatment observations:

$$y_{i,t+h} = \alpha + \beta_1 \cdot \text{Post}_t + \beta_2 \cdot \text{Treatment}_i + \beta_3 \cdot (\text{Post}_t \times \text{Treatment}_i) + \mathbf{X}_i'\gamma + \delta_s + \phi_p + \varepsilon_{it}$$

where $y_{i,t+h}$ denotes the log total credit line of firm i at time $t+h$; Post_t is an indicator equal to 1 in the post-treatment period and 0 otherwise; Treatment_i equals 1 if the firm was assigned to any treatment group; $\mathbf{X}_i$ is a vector of firm-level controls; and ϕ_p and δ_s denote province and sector fixed effects, respectively. The coefficient β_3 captures the differential change in credit lines for treated firms relative to control firms after the RCT.

The results of this exercise are reported in Table F1. Column (1) pools all post-treatment horizons ($h = 0$ to 4) into a single specification. Columns (2) through (5) estimate the model separately for each horizon. Across all specifications, the interaction term Post × Treatment is statistically insignificant and economically small, indicating that credit lines remained stable and did not changed after RCT. These results provide clear evidence that there were no systematic shifts in credit supply following the RCT.

Table F1: Difference-in-Differences Estimates of Credit Line Stability

	Dependent Variable: $y_{i,t+h}$				
	(1) Pooling Sample	(2) $h = 1$	(3) $h = 2$	(4) $h = 3$	(5) $h = 4$
Post	-0.0003	-0.0006	-0.0004	-0.0002	-0.0001
	(0.0003)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
Treatment	-0.0199	-0.0199	-0.0199	-0.0199	-0.0199
	(0.0291)	(0.0292)	(0.0292)	(0.0292)	(0.0292)
Post × Treatment	0.0010	0.0008	0.0010	0.0015	0.0009
	(0.0007)	(0.0009)	(0.0009)	(0.0009)	(0.0009)
Observations	7,010	2,804	2,804	2,804	2,804
R-squared	0.0248	0.0249	0.0249	0.0249	0.0249

Notes: This table reports estimates from difference-in-differences regressions assessing whether total credit lines changed differentially for treated versus control firms following the RCT. The dependent variable is the log of total credit line. Column (1) pools all post-treatment months $h = 1$ to 4, while Columns (2) to (5) present results separately for each month h. The variable *Post* is an indicator equal to one for the post-treatment period; *Treatment* equals one if the firm is assigned to any treatment group; and *Post* × *Treatment* is the interaction term capturing differential post-treatment changes for treated firms. Standard errors, clustered at the firm level, are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Appendix - G - Robustness Check for the Results

G1 Wald Estimator

As a robustness exercise, we estimate a simplified instrumental variables model in the spirit of a Wald estimator by excluding treatment-prior interactions from the first stage. Specifically, we use treatment group assignment indicators as instruments for posterior inflation expectations, while directly controlling for firms' prior expectations in the second stage:

$$\mathrm{Y}_{i,t+h} = \beta_1 \mathrm{Post}_{i,t}^{mean} + \mathrm{Prior}_{i,t}^{mean} + \gamma X_{i,t-1} + \delta_s + \phi_p + \varepsilon_{i,t+h}, \tag{5}$$

$$\mathrm{Post}_{i,t}^{mean} = \alpha_0 + \sum_{j=1}^{4} \alpha_j \times I\{i \in \text{Treat } j\} + \varepsilon_{i,t}. \tag{6}$$

In this setting, the coefficient β_1 can be interpreted as a Wald estimator of the causal effect of inflation expectations on the outcome variable. Formally, the Wald estimator of the effect of inflation expectations on firm outcomes is calculated as the ratio of the intent-to-treat and first-stage effects:

$$\beta_1^{\text{Wald}} = \frac{\psi^{\text{ITT}}}{\psi^{\text{FS}}} = \frac{\mathbb{E}[Y_{i,t+h} \mid \text{Treat}] - \mathbb{E}[Y_{i,t+h} \mid \text{Control}]}{\mathbb{E}[\text{Post}_i^{mean} \mid \text{Treat}] - \mathbb{E}[\text{Post}_i^{mean} \mid \text{Control}]}.$$

where "Treat" refers to assignment to any treatment group, and "Control" denotes firms that received no information intervention.ψ^{ITT} denotes the intent-to-treat effect, i.e., the average difference in outcomes between treated and control firms. ψ^{FS} denotes the first-stage effect, i.e., the average difference in posterior inflation expectations between treated and control firms. The Wald estimator β_1^{Wald} thus captures the marginal effect of a treatment-induced change in inflation expectations on firm behavior, net of prior beliefs and firm characteristics.

Table G1: Effects of Inflation Expectations on Credit (Flow) , Borrowing Cost and Credit Utilization Rate

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Credit				
Posterior Mean	0.024*	0.029**	0.014**	0.012
	(0.013)	(0.011)	(0.007)	(0.009)
First Stage F-stat (KP Wald)	13.70	14.41	13.79	13.80
R-squared	0.03	0.03	0.05	0.04
Observations	1,159	1,161	1,160	1,160
Panel B: Effect on Borrowing Cost				
Posterior Mean	-0.037**	-0.018	-0.003***	-0.003***
	(0.016)	(0.015)	(0.001)	(0.001)
First Stage F-stat (KP Wald)	10.15	9.22	8.69	9.82
R-squared	0.10	0.04	0.08	0.09
Observations	569	543	514	550
Panel C: Effect on Credit Utilization Rate				
Posterior Mean	0.009***	0.011***	-0.003	-0.002
	(0.002)	(0.002)	(0.001)	(0.001)
First Stage F-stat (KP Wald)	14.03	13.95	13.97	13.70
R-squared	0.08	0.08	0.09	0.10
Observations	1,167	1,163	1,164	1,159
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

Notes: The table reports estimation results for Equation-(5). In Panel A, the dependent variable is defined as $y_{it+h} = \log\left(\frac{cr_{i,t+h}}{cr_{i,t-1}}\right)$, where $cr_{i,t+h}$ represents the flow credit amount at time $t+h$. In Panel B, the dependent variable is the weighted average interest rate charged on flow credits at time $t+h$, $y_{it+h} = r_{i,t+h}$. In Panel C, the dependent variable is the credit utilization rate, defined as the ratio of total credit used to the total credit line at time $t+h$, $y_{i,t+h} = \frac{cr_{i,t+h}}{c.linei,t+h}$. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table G2: Effects of Inflation Expectations on Short-Term and Long-Term Borrowing (Flow)

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
	Panel A: Effect on Long-term Credit			
Posterior Mean	0.045***	0.030***	0.026***	-0.003
	(0.008)	(0.007)	(0.007)	(0.002)
R-squared	0.27	0.26	0.24	-0.19
First Stage F-stat (KP Wald)	14.18	13.91	14.19	13.98
Observations	1,178	1,170	1,177	1,173
	Panel B: Effect on Short-term Credit			
Posterior Mean	-0.025***	-0.028***	-0.001	0.003
	(0.006)	(0.005)	(0.002)	(0.002)
R-squared	0.25	0.29	-0.24	0.19
First Stage F-stat (KP Wald)	14.05	14.12	14.08	14.12
Observations	1,168	1,170	1,168	1,170
	Panel C: Effect on Long-term Borrowing Cost			
Posterior Mean	0.038	0.049**	0.018	0.047
	(0.027)	(0.020)	(0.028)	(0.050)
R-squared	0.06	0.05	0.08	0.10
First Stage F-stat (KP Wald)	2.32	2.33	2.02	2.12
Observations	219	220	212	221
	Panel D: Effect on Short-term Borrowing Cost			
Posterior Mean	-0.034***	-0.028**	-0.063**	0.051
	(0.008)	(0.012)	(0.027)	(0.031)
R-squared	0.02	0.02	0.03	0.04
First Stage F-stat (KP Wald)	4.98	4.86	3.21	4.49
Observations	290	289	248	282
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

Notes: This table presents the estimation results for Equation-(5). In Panel A and B, the dependent variable is defined as $y_{it+h} = \log\left(\frac{cr_{i,t+h}}{cr_{i,t-1}}\right)$, where $cr_{i,t+h}$ represents the long-term and short-term flow credit amount at time $t+h$, respectively. In Panel C and D, the dependent variable is the weighted average interest rate charged on flow long-term and short-term credits at time $t+h$, $y_{it+h} = r_{i,t+h}$. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table G3: Effects of Inflation Expectations on Outstanding Credit Composition

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Total Outstanding Credit				
Posterior Mean	0.054***	0.045***	0.010*	0.004
	(0.015)	(0.014)	(0.005)	(0.003)
First Stage F-stat (KP Wald)	14.58	14.58	14.45	14.84
R-squared	0.04	0.04	0.05	0.04
Observations	1,172	1,172	1,170	1,176
Panel B: Effect on Long-term Outstanding Credit				
Posterior Mean	0.093***	0.042**	0.009	0.011
	(0.021)	(0.019)	(0.014)	(0.016)
First Stage F-stat (KP Wald)	13.29	13.99	13.99	14.08
R-squared	0.03	0.07	0.07	0.08
Observations	1,168	1,173	1,173	1,175
Panel C: Effect on Short-term Outstanding Credit				
Posterior Mean	-0.022**	-0.027***	0.004	-0.005
	(0.010)	(0.009)	(0.006)	(0.0010)
First Stage F-stat (KP Wald)	14.20	14.49	14.11	14.62
R-squared	0.05	0.02	0.01	0.01
Observations	1,173	1,171	1,169	1,175
Panel D: Effect on TL-denominated Outstanding Credit				
Posterior Mean	0.044**	0.025	0.040**	0.005
	(0.019)	(0.022)	(0.016)	(0.012)
First Stage F-stat (KP Wald)	14.16	14.46	13.48	14.22
R-squared	0.05	0.04	0.07	0.06
Observations	1,173	1,177	1,169	1,175
Panel E: Effect on FX-denominated Outstanding Credit				
Posterior Mean	-0.026***	-0.016**	-0.014**	-0.006
	(0.010)	(0.007)	(0.005)	(0.009)
First Stage F-stat (KP Wald)	14.30	14.30	14.35	14.28
R-squared	0.05	0.06	0.03	0.02
Observations	1,174	1,174	1,175	1,173
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

Notes: This table presents the estimation results for Equation-(5). The dependent variable is defined as $y_{it+h} = \log\left(\frac{X_{i,t+h}}{X_{i,t-1}}\right)$, where $X_{i,t+h}$ denotes the outstanding credit stock at time $t+h$ by credit type: total (Panel A), long-term (Panel B), short-term (Panel C), TL-denominated (Panel D), and FX-denominated (Panel E). All specifications include firm controls, sector and province fixed effects. Huber regression is used in the first stage and the jackknife procedure in the second. Robust standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table G4: Effect of Inflation Expectations on Foreign Currency Transactions

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Foreign Currency Buying				
Posterior Mean	0.014**	0.015*	0.017*	0.015*
	(0.008)	(0.008)	(0.009)	(0.009)
R-squared	0.04	0.05	0.05	0.06
Panel B: Effect on Foreign Currency Selling				
Posterior Mean	-0.021**	-0.021*	-0.020	-0.021
	(0.010)	(0.012)	(0.014)	(0.013)
R-squared	0.07	0.07	0.06	0.07
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
First Stage F-stat (KP Wald)	13.76	13.33	11.81	11.15
Observations	1,167	1,163	1,164	1,159

Notes: The table reports estimation results for Equation-(5). In Panels A and B, the dependent variables are $y_{it+h} = \log\left(\frac{s_{i,t+h}}{s_{i,t-1}}\right)$ and $y_i = \log\left(\frac{b_{i,t+h}}{b_{i,t-1}}\right)$, where $s_{i,t+h}$ and $b_{i,t+h}$ correspond to the purchasing and selling of foreign currency at time $t+h$, respectively. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table G5: Effects of Inflation Expectations on Real Outcomes

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Sales				
Posterior Mean	-0.022^{*}	-0.025^{*}	-0.029^{**}	-0.018
	(0.014)	(0.013)	(0.013)	(0.013)
R-squared	0.02	0.03	0.02	0.02
Panel B: Effect on Number of Buyers				
Posterior Mean	-0.012^{*}	-0.016^{**}	-0.013^{*}	-0.012^{*}
	(0.007)	(0.007)	(0.007)	(0.007)
R-squared	0.08	0.06	0.06	0.04
Panel C: Effect on Purchases				
Posterior Mean	0.002	0.010	0.004	0.014^{*}
	(0.006)	(0.007)	(0.007)	(0.007)
R-squared	0.03	0.02	0.02	0.03
Panel D: Effect on Number of Sellers				
Posterior Mean	0.010	0.012	0.010^{*}	0.012^{**}
	(0.010)	(0.008)	(0.006)	(0.006)
R-squared	0.10	0.09	0.11	0.10
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
First Stage F-stat (KP Wald)	12.61	13.46	13.45	13.49
Observations	1,159	1,159	1,158	1,157

Notes: This table presents the estimation results for Equation-(5). The dependent variable in Panels A, B, C and D is defined as $y_{it+h} = \log\left(\frac{X_{i,t+h}}{X_{i,t-1}}\right)$, where $X_{i,t+h}$ denotes sales, number of buyers, purchases and number of sellers at time $t+h$, respectively. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table G6: Effects of Inflation Expectations on Employment, New Hirings and Wages

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Employment				
Posterior Mean	−0.012	−0.010*	−0.013*	−0.012
	(0.010)	(0.006)	(0.007)	(0.010)
R-squared	0.024	0.021	0.021	0.022
Panel B: Effect on New Hirings				
Posterior Mean	−0.005	−0.010	−0.016*	−0.015
	(0.010)	(0.011)	(0.010)	(0.011)
R-squared	0.020	0.030	0.020	0.030
Panel C: Effect on Wages				
Posterior Mean	−0.002	−0.002	0.002**	0.001
	(0.001)	(0.001)	(0.001)	(0.002)
R-squared	0.010	0.020	0.020	0.020
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
First Stage F-stat (KP Wald)	12.61	13.46	13.45	13.49
Observations	1,159	1,159	1,158	1,157

Notes: This table presents the estimation results for Equation-(5). The dependent variable in Panels A, B and C is defined as $y_{it+h} = \log\left(\frac{X_{i,t+h}}{X_{i,t-1}}\right)$, where $X_{i,t+h}$ denotes employment, number of new hirings and wages at time $t+h$, respectively. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Wald Estimator adding Uncertainty

Table G7: Effects of Inflation Expectations and Uncertainty on Credit, Borrowing Cost, and Credit Utilization Rate

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Credit				
Posterior Mean	0.009	0.039**	-0.018	0.015
	(0.021)	(0.018)	(0.015)	(0.018)
Posterior Uncertainty	-0.040	0.198	-0.091	0.208
	(0.239)	(0.206)	(0.204)	(0.206)
First Stage F-stat (KP Wald): Mean	14.54	14.57	13.62	14.46
First Stage F-stat (KP Wald): Uncertainty	3.09	3.11	3.02	3.08
R-squared	0.02	0.03	0.04	0.04
Observations	1,169	1,170	1,159	1,168
Panel B: Effect on Borrowing Cost				
Posterior Mean	-0.028**	-0.012	-0.009**	-0.003
	(0.015)	(0.018)	(0.004)	(0.006)
Posterior Uncertainty	0.172	0.092	0.006	0.001
	(0.318)	(0.253)	(0.021)	(0.021)
First Stage F-stat (KP Wald): Mean	10.05	8.75	7.92	9.46
First Stage F-stat (KP Wald): Uncertainty	2.37	2.21	2.04	2.25
R-squared	0.01	0.02	0.02	0.04
Observations	565	540	508	547
Panel C: Effect on Credit Utilization Rate				
Posterior Mean	0.008***	0.009**	-0.006	-0.005
	(0.003)	(0.004)	(0.005)	(0.007)
Posterior Uncertainty	0.015	0.008	-0.001	0.000
	(0.035)	(0.032)	(0.017)	(0.018)
First Stage F-stat (KP Wald): Mean	13.91	13.90	13.92	13.62
First Stage F-stat (KP Wald): Uncertainty	3.11	3.01	2.99	3.02
R-squared	0.08	0.08	0.09	0.10
Observations	1,167	1,163	1,164	1,159
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

Notes: This table reports the estimation results for Equation-(5). In Panel A, the dependent variable is defined as $y_{it+h} = \log\left(\frac{cr_{i,t+h}}{cr_{i,t-1}}\right)$, where $cr_{i,t+h}$ is the flow credit amount. In Panel B, the dependent variable is the weighted average interest rate on flow credits at time $t+h$, $y_{it+h} = r_{i,t+h}$. In Panel C, the dependent variable is the credit utilization rate, defined as $y_{it+h} = \frac{cr_{i,t+h}}{creditline_{i,t+h}}$. We apply Huber regression in the first stage to account for outliers and use a jackknife procedure in the second stage. Posterior uncertainty represents the coefficient on the uncertainty measure. Heteroskedasticity-robust standard errors are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table G8: Effects of Inflation Expectations and Uncertainty on Short-Term and Long-Term Borrowing (Flow)

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Long-term Credit				
Posterior Mean	0.045***	0.032***	0.024***	-0.002
	(0.009)	(0.008)	(0.007)	(0.002)
Posterior Uncertainty	-0.141	-0.011	0.024	0.020
	(0.121)	(0.089)	(0.087)	(0.027)
First Stage F-stat: Mean	15.28	15.28	14.67	14.94
First Stage F-stat: Uncertainty	2.63	2.63	2.59	2.60
R-squared	0.15	0.26	0.23	0.18
Observations	1,176	1,176	1,173	1,175
Panel B: Effect on Short-term Credit				
Posterior Mean	-0.030***	-0.027***	0.001	0.003
	(0.007)	(0.006)	(0.002)	(0.002)
Posterior Uncertainty	0.096	-0.038	-0.023	-0.011
	(0.086)	(0.067)	(0.027)	(0.028)
First Stage F-stat: Mean	14.66	14.74	14.52	14.68
First Stage F-stat: Uncertainty	2.62	2.94	2.61	2.65
R-squared	0.19	0.27	0.15	0.16
Observations	1,173	1,176	1,171	1,174
Panel C: Effect on Long-term Borrowing Cost				
Posterior Mean	0.022	0.046***	0.078	-0.002
	(0.062)	(0.014)	(0.059)	(0.054)
Posterior Uncertainty	-0.924	-0.195	-0.594	0.170
	(1.014)	(0.126)	(0.643)	(0.242)
First Stage F-stat: Mean	3.43	3.27	2.32	2.51
First Stage F-stat: Uncertainty	1.37	1.21	0.64	1.32
R-squared	0.05	0.06	0.06	0.04
Observations	244	215	208	224
Panel D: Effect on Short-term Borrowing Cost				
Posterior Mean	-0.063**	-0.012	-0.059*	0.033
	(0.030)	(0.014)	(0.032)	(0.040)
Posterior Uncertainty	0.217	-0.105	0.031	0.399
	(0.260)	(0.117)	(0.248)	(0.523)
First Stage F-stat: Mean	4.25	4.45	3.71	4.07
First Stage F-stat: Uncertainty	1.35	1.42	1.22	1.29
R-squared	0.056	0.023	0.046	0.064
Observations	271	280	245	261
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

Notes: This table reports the estimation results for Equation-(5). In Panels A and B, the dependent variable is defined as $y_{it+h} = \log\left(\frac{cr_{i,t+h}}{cr_{i,t-1}}\right)$, where $cr_{i,t+h}$ represents the long-term and short-term flow credit amount at time $t+h$, respectively. In Panels C and D, the dependent variable is the weighted average interest rate charged on flow long-term and short-term credits at time $t+h$, $y_{it+h} = r_{i,t+h}$. Posterior uncertainty rows report the coefficients on uncertainty measures. Each regression includes firm-level controls, sector and province fixed effects. Huber regression is used in the first stage to address outliers, and the jackknife procedure is employed in the second stage. Heteroskedasticity-robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table G9: Effects of Inflation Expectations on Outstanding Credit Composition

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Total Outstanding Credit				
Posterior Mean	0.045**	0.047***	0.012*	0.001
	(0.018)	(0.014)	(0.006)	(0.009)
Posterior Uncertainty	0.318	0.047	-0.063	-0.001
	(0.250)	(0.167)	(0.068)	(0.001)
First Stage F-stat: Mean	14.35	14.47	14.42	14.51
First Stage F-stat: Uncertainty	2.39	3.07	2.99	3.07
R-squared	0.02	0.01	0.03	0.03
Observations	1,171	1,175	1,174	1,179
Panel B: Effect on Long-term Outstanding Credit				
Posterior Mean	0.078***	0.029	0.011	0.019
	(0.028)	(0.024)	(0.020)	(0.022)
Posterior Uncertainty	0.624	0.370	-0.001	-0.001
	(0.424)	(0.286)	(0.001)	(0.001)
First Stage F-stat: Mean	14.82	14.86	14.62	14.86
First Stage F-stat: Uncertainty	2.07	2.65	2.30	2.64
R-squared	0.03	0.02	0.02	0.05
Observations	1,172	1,174	1,173	1,174
Panel C: Effect on Short-term Outstanding Credit				
Posterior Mean	-0.027**	-0.022*	0.004	0.003
	(0.012)	(0.012)	(0.003)	(0.002)
Posterior Uncertainty	0.207	-0.279	-0.033	-0.025
	(0.153)	(0.174)	(0.034)	(0.027)
First Stage F-stat: Mean	14.51	14.48	14.78	14.85
First Stage F-stat: Uncertainty	2.62	2.12	2.98	3.08
R-squared	0.02	0.05	0.04	0.04
Observations	1,171	1,170	1,172	1,179
Panel D: Effect on TL-denominated Outstanding Credit				
Posterior Mean	0.058**	0.023	0.030*	-0.012
	(0.027)	(0.019)	(0.017)	(0.014)
Posterior Uncertainty	-0.009	0.008	-0.008	0.006
	(0.350)	(0.211)	(0.204)	(0.232)
First Stage F-stat: Mean	13.47	13.75	13.70	14.07
First Stage F-stat: Uncertainty	2.20	2.99	2.95	2.99
R-squared	0.04	0.05	0.07	0.05
Observations	1,170	1,176	1,175	1,177
Panel E: Effect on FX-denominated Outstanding Credit				
Posterior Mean	-0.017	-0.015*	-0.014**	0.011
	(0.012)	(0.009)	(0.006)	(0.010)
Posterior Uncertainty	-0.114	0.048	-0.079	-0.042
	(0.137)	(0.107)	(0.073)	(0.065)
First Stage F-stat: Mean	14.67	14.36	13.86	14.67
First Stage F-stat: Uncertainty	2.85	2.76	2.80	2.85
R-squared	0.05	0.03	0.02	0.03
Observations	1,177	1,175	1,176	1,177
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

Notes: This table presents the estimation results for Equation-(5). The dependent variable is defined as $y_{it+h} = \log\left(\frac{X_{i,t+h}}{X_{i,t-1}}\right)$, where $X_{i,t+h}$ denotes the outstanding credit stock at time $t+h$ by credit type: total (Panel A), long-term (B), short-term (C), TL-denominated (D), and FX-denominated (E). Posterior uncertainty refers to the uncertainty component of inflation expectations. All regressions include firm-level controls, sector and province fixed effects. The first stage applies Huber regression to mitigate outliers; the second stage uses jackknife estimation. Heteroskedasticity robust standard errors are in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table G10: Effect of Inflation Expectations and Uncertainty on Foreign Currency Transactions

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Foreign Currency Buying				
Posterior Mean	0.019**	0.017*	0.019	0.019
	(0.008)	(0.009)	(0.012)	(0.015)
Posterior Uncertainty	0.018	0.044	0.017	0.023
	(0.054)	(0.056)	(0.056)	(0.048)
R-squared	0.04	0.05	0.05	0.06
Observations	1,167	1,163	1,164	1,159
Panel B: Effect on Foreign Currency Selling				
Posterior Mean	0.002	0.002	-0.011*	0.012*
	(0.007)	(0.008)	(0.006)	(0.007)
Posterior Uncertainty	0.119	0.095	0.053	0.082
	(0.074)	(0.077)	(0.066)	(0.068)
R-squared	0.07	0.06	0.06	0.07
First Stage F-stat (KP Wald): Mean	12.76	12.33	12.15	11.79
First Stage F-stat (KP Wald): Uncertainty	2.81	2.71	2.53	2.41
Observations	1,167	1,163	1,164	1,159

Notes: The table reports estimation results for Equation-(5). In Panels A and B, the dependent variables are $y_{it+h} = \log\left(\frac{s_{i,t+h}}{s_{i,t-1}}\right)$ and $y_i = \log\left(\frac{b_{i,t+h}}{b_{i,t-1}}\right)$, where $s_{i,t+h}$ and $b_{i,t+h}$ correspond to the purchasing and selling of foreign currency at time $t+h$, respectively. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table G11: Effects of Inflation Expectations on Real Outcomes

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Sales				
Posterior Mean	-0.017^{**}	-0.019^{*}	-0.026^{*}	-0.021
	(0.008)	(0.010)	(0.014)	(0.015)
Posterior Uncertainty	0.067	-0.017	-0.004	0.105
	(0.158)	(0.153)	(0.156)	(0.171)
Panel B: Effect on Number of Buyers				
Posterior Mean	-0.019^{**}	-0.018^{**}	-0.017^{**}	0.003
	(0.008)	(0.008)	(0.008)	(0.007)
Posterior Uncertainty	-0.012	-0.029	-0.022	-0.057
	(0.082)	(0.084)	(0.088)	(0.095)
R-squared	0.05	0.04	0.03	0.04
Panel C: Effect on Purchases				
Posterior Mean	0.003	0.007	0.015^{*}	0.016^{*}
	(0.007)	(0.007)	(0.008)	(0.008)
Posterior Uncertainty	-0.057	-0.094	-0.076	-0.111
	(0.095)	(0.099)	(0.102)	(0.100)
R-squared	0.05	0.05	0.04	0.05
Panel D: Effect on Number of Sellers				
Posterior Mean	0.013	0.014	0.012	0.013^{*}
	(0.010)	(0.010)	(0.008)	(0.007)
Posterior Uncertainty	-0.062	-0.090	-0.085	-0.079
	(0.120)	(0.126)	(0.124)	(0.120)
R-squared	0.07	0.08	0.07	0.09
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
First Stage F-stat (KP Wald): Mean	12.69	12.71	12.66	12.54
First Stage F-stat (KP Wald): Uncertainty	2.24	2.48	2.36	2.29
Observations	1,159	1,159	1,158	1,157

Notes: This table presents the estimation results for Equation-(5). The dependent variable in Panels A, B, C and D is defined as $y_{it+h} = \log\left(\frac{X_{i,t+h}}{X_{i,t-1}}\right)$, where $X_{i,t+h}$ denotes sales, number of buyers, purchases and number of sellers at time $t+h$, respectively. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table G12: Effects of Inflation Expectations on Employment, New Hirings and Wages

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Employment				
Posterior Mean	−0.014	−0.017*	−0.016*	−0.013
	(0.010)	(0.010)	(0.010)	(0.011)
Posterior Uncertainty	−0.083	−0.052	−0.064	−0.071
	(0.129)	(0.134)	(0.135)	(0.132)
R-squared	0.05	0.04	0.04	0.05
Panel B: Effect on New Hirings				
Posterior Mean	−0.012	−0.015	−0.017*	0.012
	(0.012)	(0.011)	(0.010)	(0.012)
Posterior Uncertainty	−0.192	−0.092	−0.122	−0.076
	(0.131)	(0.160)	(0.161)	(0.132)
R-squared	0.04	0.04	0.03	0.04
Panel C: Effect on Wages				
Posterior Mean	−0.001	0.003	0.005***	0.003*
	(0.001)	(0.002)	(0.002)	(0.002)
Posterior Uncertainty	0.005	−0.010	−0.014	−0.001
	(0.019)	(0.018)	(0.019)	(0.020)
R-squared	0.03	0.02	0.02	0.02
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
First Stage F-stat (KP Wald): Mean	12.69	12.71	12.66	12.54
First Stage F-stat (KP Wald): Uncertainty	2.24	2.48	2.36	2.29
Observations	1,159	1,159	1,158	1,157

Notes: This table presents the estimation results for Equation-(5). The dependent variable in Panels A, B and C is defined as $y_{it+h} = \log\left(\frac{X_{i,t+h}}{X_{i,t-1}}\right)$, where $X_{i,t+h}$ denotes employment, number of new hirings and wages at time $t+h$, respectively. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

G2 Measuring Inflation Uncertainty from Rounding Behavior and Controlling Uncertainty

We implement the rounding-based method developed by Binder (2017b) to construct a micro-level proxy for inflation uncertainty from firms' point forecasts. The key insight underlying this method is that respondents who are more uncertain about their forecasts tend to report round numbers (e.g., multiples of 5), while more confident respondents are more likely to report non-round numbers. This phenomenon is referred to as the "Round Numbers Suggest Round Interpretations" principle.

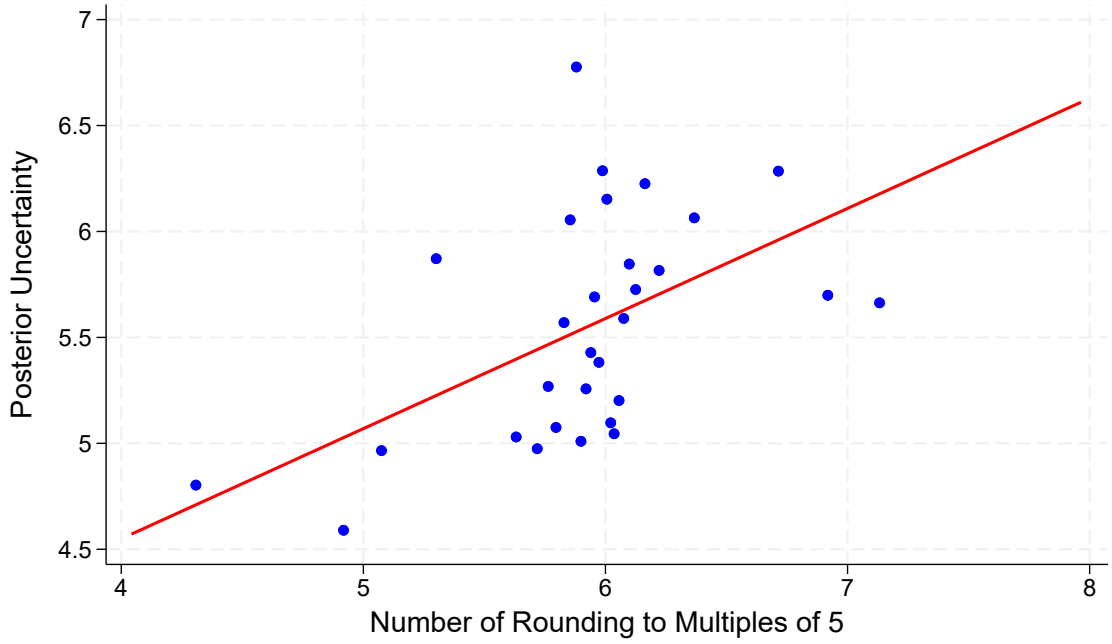


Figure G1: Correlation between the Posterior Uncertainty and Rounding Behavior

Notes: Posterior uncertainty is measured using firm-level responses from the RCT, based on a triangular distribution constructed from firms' reported minimum, maximum, and best expectations. The red line represents the fitted values from a regression of posterior uncertainty on the number of responses rounded to multiples of 5, controlling for sector and province fixed effects, as well as firm-level characteristics. The slope coefficient of the fitted line is 0.4 and statistically significant.

Figure G1 provides supporting evidence for this approach in our setting. The figure plots the relationship between the frequency of rounding to multiples of 5 and a benchmark measure of posterior uncertainty, which is derived from firms' subjective density forecasts under a triangu-

lar distribution assumption using their reported minimum, maximum, and modal expectations. We observe a clear positive correlation: firms that round more frequently tend to have higher uncertainty. The fitted line in the figure comes from a regression of posterior uncertainty on the rounding frequency, controlling for sector and province fixed effects, as well as firm-level covariates. The slope of this relationship is 0.4 and statistically significant, providing validation that rounding behavior is a meaningful proxy for underlying uncertainty in inflation expectations.

Formally, suppose that each firm i at time t has a subjective belief about future inflation characterized by a distribution with mean f_{it} and variance v_{it}. Firms are assumed to fall into two latent types: type-l (low uncertainty) and type-h (high uncertainty). Type-h firms report rounded responses from a coarse set S^h (e.g., multiples of 5), while type-l firms report from a finer set S^l (e.g., all integers), where $S^h \subset S^l$. We observe the reported forecast R_{it}, which is the rounded version of f_{it} to the nearest element in S^τ for firms of type $\tau \in \{l, h\}$.

Let ϕ_t^l and ϕ_t^h denote the probability mass functions (pmfs) of responses from low- and high-uncertainty types, respectively. These are obtained by discretizing the underlying continuous density functions $p_l(x)$ and $p_h(x)$ for f_{it} among type-l and type-h firms:

$$\phi_t^l(j) = \mathbb{P}(R_{it} = j \mid i \text{ is type } l) = \int_{f_{\min}^l(j)}^{f_{\max}^l(j)} p_l(x)dx, \quad j \in S^l, \tag{7}$$

$$\phi_t^h(j) = \mathbb{P}(R_{it} = j \mid i \text{ is type } h) = \int_{f_{\min}^h(j)}^{f_{\max}^h(j)} p_h(x)dx, \quad j \in S^h, \tag{8}$$

where $f_{\min}^\tau(j)$ and $f_{\max}^\tau(j)$ define the range of values that would be rounded to j for type τ respondents.

At each time t, the overall distribution of observed responses ϕ_t is a mixture of the two types:

$$\phi_t = \lambda_t \phi_t^h + (1 - \lambda_t)\phi_t^l,$$

where λ_t is the proportion of type-h firms. Since the type of each firm is unobserved, λ_t and the

parameters of ϕ_t^h and ϕ_t^l are estimated via maximum likelihood.

We then compute the firm-level uncertainty proxy ζ_{it}, which is the posterior probability that firm i is type h given its response R_{it}:

$$\zeta_{it} = \begin{cases} 0, & \text{if } R_{it} \notin S^h \\ \frac{\lambda_t \phi_t^h(R_{it})}{\lambda_t \phi_t^h(R_{it}) + (1-\lambda_t)\phi_t^l(R_{it})}, & \text{if } R_{it} \in S^h \end{cases}$$

This firm-level measure ζ_{it} provides a continuous proxy for subjective uncertainty, where higher values indicate a greater likelihood of being a high-uncertainty type. Because it relies only on observed point forecasts and not on density responses, it can be applied to pre-existing survey data without the need for additional elicitation. This makes it particularly useful in settings where only point forecasts are available.

After constructing the firm-level inflation uncertainty measure based on rounding behavior (as described above), we extend our main empirical specification to jointly examine the effects of both the level (mean) and uncertainty of expectations on firm outcomes. The second-stage equation is:

$$\mathrm{Y}_{i,t+h} = \beta_1 \mathrm{Post}_{i,t}^{mean} + \beta_2 \mathrm{Post}_{i,t}^{unc} + \beta_3 \mathrm{Prior}_{i,t}^{mean} + \beta_4 \mathrm{Prior}_{i,t}^{unc} + \gamma X_{i,t-1} + \delta_s + \phi_p + \varepsilon_{i,t+h}, \qquad (9)$$

where $\mathrm{Post}_{i,t}^{mean}$ and $\mathrm{Post}_{i,t}^{unc}$ denote the posterior (post-treatment) inflation expectation and its associated uncertainty for firm i, respectively, while $\mathrm{Prior}_{i,t}^{mean}$ and $\mathrm{Prior}_{i,t}^{unc}$ denote the pre-treatment (May BTS) expectation and uncertainty. $X_{i,t-1}$ includes firm-level controls, and δ_s and ϕ_p are sector and province fixed effects.

To address the potential endogeneity of firms' posterior expectations and uncertainty, we employ a two-stage least squares (2SLS) strategy. The first-stage equations are as follows:

$$\begin{aligned}\text{Post}_{i,t}^{mean} = \alpha_0 + \sum_{j=1}^{4} \beta_j \times I\{i \in \text{Treat } j\} \times \text{Prior}_{i,t}^{mean} + \sum_{j=1}^{4} \beta_j \times I\{i \in \text{Treat } j\} \times \text{Prior}_{i,t}^{unc} \\ + \sum_{j=1}^{4} \alpha_j \times I\{i \in \text{Treat } j\} + \varepsilon_{i,t},\end{aligned} \tag{10}$$

$$\begin{aligned}\text{Post}_{i,t}^{unc} = \alpha_0 + \sum_{j=1}^{4} \beta_j \times I\{i \in \text{Treat } j\} \times \text{Prior}_{i,t}^{mean} + \sum_{j=1}^{4} \beta_j \times I\{i \in \text{Treat } j\} \times \text{Prior}_{i,t}^{unc} \\ + \sum_{j=1}^{4} \alpha_j \times I\{i \in \text{Treat } j\} + \varepsilon_{i,t}.\end{aligned} \tag{11}$$

This specification allows us to isolate the causal impact of treatment-induced changes not only in inflation expectations but also in subjective uncertainty. By including both the level and the uncertainty of expectations, we account for potentially distinct behavioral channels—such as precautionary adjustments driven by uncertainty versus anticipatory responses driven by the expected path of inflation.

Table G13: Effects of Inflation Expectations and Uncertainty on Credit, Borrowing Cost, and Credit Utilization Rate

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Credit				
Posterior Mean	0.023***	0.038***	-0.008	0.009
	(0.009)	(0.007)	(0.006)	(0.007)
Posterior Uncertainty	-0.292	-0.331	0.098	-1.304
	(1.746)	(1.423)	(1.614)	(1.429)
First Stage F-stat (KP Wald): Mean	35.83	34.12	35.80	35.80
First Stage F-stat (KP Wald): Uncertainty	2.15	1.95	1.88	2.18
R-squared	0.02	0.03	0.01	0.03
Observations	1,163	1,162	1,164	1,164
Panel B: Effect on Borrowing Cost				
Posterior Mean	-0.047***	-0.012	-0.004***	-0.002**
	(0.013)	(0.014)	(0.001)	(0.001)
Posterior Uncertainty	2.099	2.006	-0.007	-0.145
	(1.822)	(2.492)	(0.179)	(0.173)
First Stage F-stat (KP Wald): Mean	24.32	17.49	22.60	20.39
First Stage F-stat (KP Wald): Uncertainty	2.26	1.29	1.25	1.21
R-squared	0.10	0.08	0.07	0.06
Observations	567	538	499	559
Panel C: Effect on Credit Utilization Rate				
Posterior Mean	0.012**	0.017***	-0.006	0.005
	(0.005)	(0.006)	(0.007)	(0.008)
Posterior Uncertainty	-0.210	-0.334	0.114	-0.128
	(1.602)	(1.451)	(1.385)	(1.309)
First Stage F-stat (KP Wald): Mean	34.88	35.10	34.73	35.25
First Stage F-stat (KP Wald): Uncertainty	2.12	2.03	1.90	2.15
R-squared	0.06	0.05	0.04	0.06
Observations	1,161	1,164	1,160	1,159
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

Notes: This table reports the estimation results for Equation (9). In Panel A, the dependent variable is defined as $y_{it+h} = \log\left(\frac{cr_{i,t+h}}{cr_{i,t-1}}\right)$, where $cr_{i,t+h}$ is the flow credit amount. In Panel B, the dependent variable is the weighted average interest rate on flow credits at time $t+h$, $y_{it+h} = r_{i,t+h}$. In Panel C, the dependent variable is the credit utilization rate, defined as $y_{it+h} = \frac{cr_{i,t+h}}{creditline_{i,t+h}}$. We apply Huber regression in the first stage to account for outliers and use a jackknife procedure in the second stage. Posterior uncertainty represents the coefficient on the uncertainty measure. Heteroskedasticity-robust standard errors are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table G14: Effects of Inflation Expectations and Uncertainty on Short-Term and Long-Term Borrowing (Flow)

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Long-term Credits				
Posterior Mean	0.032***	0.028***	0.032***	-0.001
	(0.004)	(0.003)	(0.003)	(0.001)
Posterior Uncertainty	-1.139	-0.954	-0.538	-0.319
	(0.871)	(0.793)	(0.697)	(0.206)
First Stage F-stat: Mean	35.51	37.36	37.24	37.12
First Stage F-stat: Uncertainty	1.75	1.80	1.83	2.35
R-squared	0.21	0.21	0.22	0.14
Observations	1,161	1,167	1,166	1,167
Panel B: Effect on Short-term Credits				
Posterior Mean	-0.029***	-0.023***	0.004	0.007
	(0.003)	(0.002)	(0.003)	(0.005)
Posterior Uncertainty	0.373	0.270	-0.035	0.190
	(0.598)	(0.491)	(0.186)	(0.217)
First Stage F-stat: Mean	36.60	37.40	36.36	36.97
First Stage F-stat: Uncertainty	2.23	2.06	2.09	1.78
R-squared	0.18	0.27	0.17	0.15
Observations	1,170	1,172	1,168	1,172
Panel C: Effect on Long-term Borrowing Cost				
Posterior Mean	0.037***	0.017**	0.032***	0.015
	(0.009)	(0.007)	(0.011)	(0.014)
Posterior Uncertainty	-0.401	0.764	0.930	-3.908
	(1.088)	(0.884)	(1.270)	(2.546)
First Stage F-stat: Mean	9.75	8.69	9.61	9.78
First Stage F-stat: Uncertainty	1.22	1.14	1.17	1.38
R-squared	0.07	0.04	0.06	0.05
Observations	232	223	227	244
Panel D: Effect on Short-term Borrowing Cost				
Posterior Mean	-0.018***	-0.017***	-0.032**	-0.006
	(0.005)	(0.004)	(0.014)	(0.012)
Posterior Uncertainty	0.756	0.120	-1.002	0.001
	(0.803)	(0.556)	(1.736)	(1.291)
First Stage F-stat: Mean	10.01	12.70	9.10	11.98
First Stage F-stat: Uncertainty	1.10	1.26	1.76	2.41
R-squared	0.03	0.07	0.06	0.04
Observations	289	288	250	293
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

Notes: This table reports the estimation results for Equation (9). In Panels A and B, the dependent variable is defined as $y_{it+h} = \log\left(\frac{cr_{i,t+h}}{cr_{i,t-1}}\right)$, where $cr_{i,t+h}$ represents the long-term and short-term flow credit amount at time $t+h$, respectively. In Panels C and D, the dependent variable is the weighted average interest rate charged on flow long-term and short-term credits at time $t+h$, $y_{it+h} = r_{i,t+h}$. Posterior uncertainty rows report the coefficients on uncertainty measures. Each regression includes firm-level controls, sector and province fixed effects. Huber regression is used in the first stage to address outliers, and the jackknife procedure is employed in the second stage. Heteroskedasticity-robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table G15: Effects of Inflation Expectations on Outstanding Credit Composition

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Total Outstanding Credit				
Posterior Mean	0.043***	0.022***	0.006***	0.005
	(0.007)	(0.006)	(0.002)	(0.006)
Posterior Uncertainty	-0.685	-0.335	0.452	-0.007
	(1.280)	(1.203)	(0.487)	(0.006)
First Stage F-stat (KP Wald): Mean	32.62	36.25	34.53	35.43
First Stage F-stat (KP Wald): Uncertainty	2.28	2.12	2.22	1.81
R-squared	0.05	0.04	0.01	0.03
Observations	1,163	1,167	1,166	1,169
Panel B: Effect on Long-term Outstanding Credit				
Posterior Mean	0.047***	0.041***	0.011	0.010
	(0.010)	(0.009)	(0.009)	(0.012)
Posterior Uncertainty	0.017	-0.695	0.024	0.006*
	(1.919)	(1.780)	(0.452)	(0.003)
First Stage F-stat (KP Wald): Mean	34.81	35.01	34.85	34.06
First Stage F-stat (KP Wald): Uncertainty	2.27	2.35	2.05	2.23
R-squared	0.07	0.06	0.06	0.05
Observations	1,166	1,167	1,168	1,164
Panel C: Effect on Short-term Outstanding Credit				
Posterior Mean	-0.015***	-0.012***	-0.002	-0.002**
	(0.005)	(0.004)	(0.001)	(0.001)
Posterior Uncertainty	-0.019	-0.054	0.023	-0.048**
	(0.106)	(0.084)	(0.025)	(0.021)
First Stage F-stat (KP Wald): Mean	36.28	37.40	36.44	34.91
First Stage F-stat (KP Wald): Uncertainty	1.77	2.53	1.87	2.59
R-squared	0.04	0.01	0.01	0.02
Observations	1,163	1,170	1,164	1,162
Panel D: Effect on TL-denominated Outstanding Credit				
Posterior Mean	0.037***	0.012	0.039***	0.014
	(0.009)	(0.008)	(0.007)	(0.010)
Posterior Uncertainty	1.667	0.001	-0.280	-0.001
	(1.734)	(0.001)	(1.372)	(0.001)
First Stage F-stat (KP Wald): Mean	36.44	35.74	34.15	35.84
First Stage F-stat (KP Wald): Uncertainty	1.99	2.12	2.31	2.34
R-squared	0.02	0.06	0.07	0.04
Observations	1,169	1,166	1,166	1,164
Panel E: Effect on FX-denominated Outstanding Credit				
Posterior Mean	-0.020***	-0.018***	-0.009***	0.002
	(0.005)	(0.003)	(0.003)	(0.004)
Posterior Uncertainty	1.133	-0.585	0.061	0.002
	(1.077)	(0.687)	(0.545)	(0.003)
First Stage F-stat (KP Wald): Mean	35.03	34.54	35.88	34.51
First Stage F-stat (KP Wald): Uncertainty	1.73	2.23	1.96	1.75
R-squared	0.01	0.03	0.05	0.02
Observations	1,169	1,167	1,168	1,164
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

Notes: This table presents the estimation results for Equation-(9). The dependent variable is defined as $y_{it+h} = \log\left(\frac{X_{i,t+h}}{X_{i,t-1}}\right)$, where $X_{i,t+h}$ represents total outstanding credit stock (Panel A), long-term (B), short-term (C), TL-denominated (D), and FX-denominated (E). Posterior uncertainty reflects the subjective uncertainty of firms' inflation expectations. The estimation uses Huber regression in the first stage and jackknife in the second stage. Heteroskedasticity-robust standard errors are in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table G16: Effect of Inflation Expectations and Uncertainty on Foreign Currency Transactions

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Foreign Currency Buying				
Posterior Mean	0.013***	0.014**	0.014*	0.013
	(0.005)	(0.007)	(0.008)	(0.009)
Posterior Uncertainty	0.318	0.290	0.602	0.691
	(0.384)	(0.398)	(0.426)	(0.427)
R-squared	0.09	0.10	0.11	0.10
Observations	1,167	1,163	1,164	1,159
Panel B: Effect on Foreign Currency Selling				
Posterior Mean	-0.019**	-0.018*	-0.017*	-0.018
	(0.010)	(0.011)	(0.010)	(0.012)
Posterior Uncertainty	0.482	0.441	0.417	0.120
	(0.361)	(0.348)	(0.358)	(0.355)
R-squared	0.07	0.09	0.08	0.09
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
First Stage F-stat (KP Wald): Mean	38.89	38.63	37.32	36.96
First Stage F-stat (KP Wald): Uncertainty	2.02	2.01	1.99	1.99
Observations	1,167	1,163	1,164	1,159

Notes: The table reports estimation results for Equation (9). In Panels A and B, the dependent variables are $y_{it+h} = \log\left(\frac{s_{i,t+h}}{s_{i,t-1}}\right)$ and $y_{it+h} = \log\left(\frac{b_{i,t+h}}{b_{i,t-1}}\right)$, where $s_{i,t+h}$ and $b_{i,t+h}$ correspond to the purchase and sale of foreign currency at time $t+h$, respectively. In each regression, we apply Huber regression in the first stage to address outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity-robust standard errors are in parentheses. ****p<0.01, **p<0.05, *p<0.1.*

Table G17: Effects of Inflation Expectations on Real Outcomes

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Sales				
Posterior Mean	-0.030^{***}	-0.027^{***}	-0.031^{***}	-0.025^{***}
	(0.008)	(0.007)	(0.007)	(0.007)
Posterior Uncertainty	-0.012	-0.017	-0.018	-0.022^{*}
	(0.014)	(0.015)	(0.013)	(0.013)
R-squared	0.08	0.07	0.08	0.07
Panel B: Effect on Number of Buyers				
Posterior Mean	-0.016^{***}	-0.016^{***}	-0.016^{***}	-0.014^{***}
	(0.004)	(0.004)	(0.004)	(0.004)
Posterior Uncertainty	-0.013^{*}	-0.016^{**}	-0.014^{*}	-0.014^{*}
	(0.008)	(0.008)	(0.008)	(0.007)
R-squared	0.06	0.05	0.04	0.05
Panel C: Effect on Purchases				
Posterior Mean	0.002	0.005^{*}	0.006^{**}	0.003
	(0.003)	(0.003)	(0.003)	(0.003)
Posterior Uncertainty	0.087	0.024	0.062	0.037
	(0.072)	(0.098)	(0.066)	(0.092)
R-squared	0.08	0.07	0.07	0.06
Panel D: Effect on Number of Sellers				
Posterior Mean	0.014^{***}	0.016^{***}	0.016^{***}	0.016^{***}
	(0.005)	(0.005)	(0.005)	(0.005)
Posterior Uncertainty	0.019^{**}	0.019^{**}	0.017^{*}	0.015^{*}
	(0.009)	(0.009)	(0.009)	(0.009)
R-squared	0.07	0.09	0.10	0.11
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
First Stage F-stat (KP Wald): Mean	36.53	36.92	35.70	35.98
First Stage F-stat (KP Wald): Uncertainty	2.35	1.88	1.99	2.37
Observations	1,159	1,159	1,158	1,157

Notes: This table presents the estimation results for Equation-(9). The dependent variable in Panels A, B, C and D is defined as $y_{it+h} = \log\left(\frac{X_{i,t+h}}{X_{i,t-1}}\right)$, where $X_{i,t+h}$ denotes sales, number of buyers, purchases and number of sellers at time $t+h$, respectively. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table G18: Effects of Inflation Expectations on Employment, New Hirings and Wages

	(1) $y_{i,t+1}$	(2) $y_{i,t+2}$	(3) $y_{i,t+3}$	(4) $y_{i,t+4}$
Panel A: Effect on Employment				
Posterior Mean	-0.024^{**}	-0.022^{**}	-0.022^{*}	-0.022
	(0.012)	(0.010)	(0.012)	(0.015)
Posterior Uncertainty	-0.457	-0.510	-0.519	-0.428
	(0.601)	(0.712)	(0.710)	(0.788)
R-squared	0.05	0.04	0.04	0.05
Panel B: Effect on New Hirings				
Posterior Mean	-0.003	-0.008	-0.002	-0.013^{**}
	(0.005)	(0.005)	(0.005)	(0.006)
Posterior Uncertainty	0.097	-0.847	-0.333	-0.409
	(0.921)	(1.024)	(1.016)	(1.050)
R-squared	0.03	0.01	0.03	0.04
Panel C: Effect on Wages				
Posterior Mean	0.001	-0.001	0.004^{**}	0.002^{**}
	(0.001)	(0.001)	(0.002)	(0.001)
Posterior Uncertainty	0.105	-0.065	0.045	-0.043
	(0.150)	(0.123)	(0.125)	(0.142)
R-squared	0.06	0.05	0.06	0.05
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
First Stage F-stat (KP Wald): Mean	36.53	36.92	35.70	35.98
First Stage F-stat (KP Wald): Uncertainty	2.35	1.88	1.99	2.37
Observations	1,159	1,159	1,158	1,157

Notes: This table presents the estimation results for Equation-(9). The dependent variable in Panels A, B and C is defined as $y_{it+h} = \log\left(\frac{X_{i,t+h}}{X_{i,t-1}}\right)$, where $X_{i,t+h}$ denotes employment, number of new hirings and wages at time $t+h$, respectively. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

G3 Active Borrowing Sample

Table-G19 and Table-G20 present the estimation results for firms actively engaged in borrowing and foreign currency trading, including both buying and selling activities, across one, two, three, and four months after the treatment. It is important to highlight that, in Tables 6 and 7, we modify the analysis to focus on the causal effect of exogenous variations in inflation expectations on firms' credit behavior and foreign currency trading decisions. Specifically, for firms that do not take any credit, their flow credit amounts are imputed as zero, thereby allowing us to observe the causal impact of inflation expectations on credit flows for all firms in the survey. This approach offers a more comprehensive understanding of the effects by accounting for both firms that engage in credit markets and those that do not, while controlling for financial constraints through leverage and the total flow credits from the previous year. Similarly, firms' decisions to engage in foreign currency trading are also treated as endogenous choices, which are controlled for by including variables for foreign currency credits and foreign currency positions. By accounting for these factors, we aim to isolate the impact of inflation expectations on firms' financial behavior, while recognizing that firms' participation in these markets is conditional on their individual circumstances and financial strategies.

Crucially, we do not impose a similar imputation of zero for interest rates. Unlike credit flows, interest rates are exogenously determined by the credit suppliers, i.e., the banks, and are thus outside the direct control of the firms. As a result, setting interest rates to zero for non-participating firms would be misleading. This is why the sample size is smaller when the outcome is the interest rate in Table-6 and Table-7. Therefore, to assess the robustness of the imputation and provide concrete evidence, we present results exclusively for firms that are actively taking credit or engaging in foreign currency trading one, two, three, and four months after the treatment in Table-G19 and Table-G20.

Table G19: Effects of Inflation Expectations on Flow Credits (Firms with Active Borrowing Sample)

	(1) y^i_{t+1}	(2) y^i_{t+2}	(3) y^i_{t+3}	(4) y^i_{t+4}
Panel A: Effect on Credit				
Posterior Mean	0.032^{***}	0.037^{***}	0.028^{*}	0.022
	(0.012)	(0.015)	(0.016)	(0.015)
First Stage F-stat (KP Wald)	20.63	20.62	20.63	20.63
R-Squared	0.10	0.11	0.11	0.15
Observations	595	567	534	582
Panel B: Effect Long-term Credit				
Posterior Mean	0.035^{***}	0.041^{**}	0.032^{**}	0.030
	(0.012)	(0.016)	(0.015)	(0.019)
First Stage F-stat (KP Wald)	20.56	17.38	18.89	21.31
R-Squared	0.12	0.15	0.09	0.10
Observations	271	254	251	261
Panel C: Effect Short-term Credit				
Posterior Mean	-0.024^{***}	-0.028^{***}	-0.025^{**}	-0.003
	(0.009)	(0.011)	(0.012)	(0.019)
First Stage F-stat (KP Wald)	10.92	11.47	10.85	13.12
R-Squared	0.05	0.08	0.04	0.03
Observations	324	313	283	321
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

Notes: The table reports estimation results for Equation-(2) for firms that have taken credit at time $t+h$. The dependent variable in Panels A, B, and C is defined as $y_{it+h} = \log\left(\frac{X_{i,t+h}}{X_{i,t-1}}\right)$, where $X_{i,t+h}$ denotes total flow credits, long-term flow credits, and short-term flow credits at time $t+h$, respectively. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table G20: Effects of Inflation Expectations on Foreign Currency Trading (Firms with Active Trading Sample)

	(1) y^i_{t+1}	(2) y^i_{t+2}	(3) y^i_{t+3}	(4) y^i_{t+4}
Panel A: Effect on Foreign Currency Buying				
Posterior Mean	0.042**	0.044*	0.038*	0.035
	(0.020)	(0.024)	(0.022)	(0.028)
First Stage F-stat (KP Wald)	39.82	35.03	38.93	38.96
R-Squared	0.51	0.59	0.61	0.63
Observations	809	782	794	809
Panel B: Effect on Foreign Currency Selling				
Posterior Mean	−0.049**	−0.052	−0.044	−0.41
	(0.021)	(0.025)	(0.029)	(0.032)
First Stage F-stat (KP Wald)	42.85	41.39	41.21	43.76
R-Squared	0.38	0.39	0.25	0.19
Observations	878	876	874	881
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓

Notes: The table presents estimation results for Equation-(2) for firms that buy or sell foreign currency at time $t+h$. In Panels A and B, the dependent variables are defined as $y_{it+h} = \log\left(\frac{s_{i,t+h}}{s_{i,t-1}}\right)$ and $y_i = \log\left(\frac{b_{i,t+h}}{b_{i,t-1}}\right)$, where $s_{i,t+h}$ and $b_{i,t+h}$ represent the sale and purchase of foreign currency at time $t+h$, respectively. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

To ensure the robustness of our findings further, we extend the analysis using data from the flow credit registry and foreign exchange buying/selling administrative datasets. This robustness check allows us to verify the consistency of the results within the data. The empirical strategy we adopt involves comparing the pre-treatment and post-treatment outcomes of firms. Spesifically, let $y_{i,post}$ represent the total outcome variable for firm i over the four-month period following the treatment, and let $y_{i,pre}$ represent the total outcome variable over the four months prior to the treatment. For this analysis, we define the pre-treatment period as January, February, March, and April, during which we sum the credit amounts and foreign currency trading activity (both buying and selling) to obtain the pre-treatment outcome. The post-treatment period is defined as June,

July, August, and September, for which we similarly aggregate the credit and foreign currency activity to determine the post-treatment outcome. In the case of interest rates, instead of summing, we calculate the weighted average for both the pre-treatment and post-treatment periods.

By utilizing this pre-post treatment comparison, we ensure that we capture the dynamic changes in firms' behavior, which are directly influenced by the treatment. This approach also allows us to assess the impact of inflation expectations on a broad set of firms that are given the survey, thereby maximizing the sample size and ensuring that our estimates are representative. Finally, we regress the difference in pre-treatment and post-treatment outcomes on inflation expectations that were formed prior to the treatment, enabling us to isolate the effect of anticipated inflation on firms' decisions to take credit or engage in foreign currency trading:

$$(y_{i,post} - y_{i,pre}) = \beta_1 \text{Post}_i^{mean} + \beta_2 \text{Prior}_i^{mean} + \gamma X_{i,t-1} + \delta_s + \phi_p + \varepsilon_i, \tag{D1}$$

where the set of controls, $X_{i,t-1}$, includes expectations of economic variables, such as the firm's outlook on sector conditions for the next three months, firm-specific employment growth over the following three months, and expectations regarding production volume for the same period. These controls are derived from time $t-1$, which corresponds to the pre-treatment month (April 2024). Additionally, we control for the annual leverage ratio, employment, and capacity utilization ratio. The vector of controls also includes the previous year's total annual credits and the weighted average credit score when the outcome pertains to credit market performance, as well as the firm's foreign currency position, total foreign currency buying, and selling activities from the previous calendar year when the outcome involves foreign exchange transactions. δ_s and ϕ_p are sector and province fixed effects, respectively. We again utilize the information treatment at time t as an instrument for the inflation expectations that follow at time t, as shown in Equation-(3).

Table G21: Effects of Inflation Expectations on Flow Credits and Foreign Currency Trading: Pre- and Post-Treatment (4-Month Window)

	(1) Coefficient (Std. error)	(2) First Stage F-Stat (KP Wald)	(3) R-Squared	(4) Observations
FX Buying	0.041^{***} (0.013)	39.21	0.05	1,067
FX Selling	-0.033^{***} (0.012)	47.41	0.07	1,169
Flow Credit	0.030^{***} (0.009)	37.38	0.14	975
Long-Term Credit	0.034^{***} (0.0011)	36.09	0.08	724
Short-Term Credit	-0.024^{**} (0.013)	38.66	0.12	823
Borrowing Cost	-0.042^{***} (0.014)	37.38	0.22	975
Long-term Borrowing Cost	0.031^{***} (0.010)	36.09	0.04	724
Short-term Borrowing Cost	-0.022^{***} (0.008)	38.66	0.21	823

Notes: The table presents estimation results for Equation (D1). Each outcome variable is defined as the log difference between the post-treatment and pre-treatment periods (i.e., $\log(y_{i,\text{post}}) - \log(y_{i,\text{pre}})$), except when the outcome variable is the borrowing cost, in which case the outcome is the weighted average interest rate for the post-treatment period. In each regression, we apply Huber regression in the first stage to account for outliers and influential observations and employ the jackknife procedure in the second stage. Heteroskedasticity robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Appendix - H - Additional Tables and Figures

Table H1: Treatment Effects on Expectations (without fixed effects and firm controls)

	CPI		PPI	
	(1) mean	(2) best	(3) mean	(4) best
Revisions in beliefs immediately after treatment				
Prior Mean	0.826***	0.834***	0.827***	0.831***
	(0.041)	(0.040)	(0.036)	(0.041)
Prior mean × T1	-0.293***	-0.323***	-0.394***	-0.424***
	(0.060)	(0.059)	(0.064)	(0.060)
Prior mean × T2	-0.250***	-0.269***	-0.307***	-0.378***
	(0.065)	(0.066)	(0.059)	(0.057)
Prior mean × T3	-0.150**	-0.160**	-0.237***	-0.286***
	(0.064)	(0.066)	(0.060)	(0.060)
Prior mean × T4	-0.167***	-0.171***	-0.212***	-0.240***
	(0.062)	(0.063)	(0.061)	(0.058)
T1 (SPF expectations)	10.231***	10.425***	10.765***	12.420***
	(3.520)	(3.377)	(3.657)	(4.057)
T2 (CBRT 1-y ahead forecast)	10.697***	10.667***	10.794***	10.529***
	(3.708)	(3.710)	(3.345)	(3.838)
T3 (CBRT 2-y ahead forecast)	2.492	2.328	8.408**	10.435***
	(3.643)	(3.688)	(3.442)	(3.847)
T4 (Inflation Target)	8.678**	7.407**	10.959***	11.464***
	(3.616)	(3.706)	(3.422)	(3.896)
Observations	1,182	1,182	1,193	1,176
R-squared	0.69	0.71	0.68	0.72

Notes (Fact-1): The table reports estimation results for Equation-(1), excluding fixed effects and firm controls. The dependent variable, (Posterior$_i$), refers to CPI in Columns (1)-(2), and to PPI in Columns (3)-(4). Mean is calculated based on triangular distribution, and best refers to the midpoint CPI expectation. Four different treatments are applied. The mean and the standard deviation of prior inflation expectations are 58% and 18, respectively. All regressions are estimated using the Huber robust method to account for outliers and influential observations. Robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Table H2: Treatment Effects on Expectations (Excluding non-updaters from the treatment group)

	CPI		PPI	
	(1) mean	(2) best	(3) mean	(4) best
Revisions in beliefs immediately after treatment				
Prior Mean	0.810***	0.830***	0.818***	0.856***
	(0.041)	(0.040)	(0.038)	(0.031)
Prior mean × T1	-0.302***	-0.326***	-0.423***	-0.460***
	(0.059)	(0.060)	(0.064)	(0.060)
Prior mean × T2	-0.262***	-0.314***	-0.327***	-0.345***
	(0.067)	(0.067)	(0.061)	(0.057)
Prior mean × T3	-0.125*	-0.149***	-0.254***	-0.286***
	(0.066)	(0.068)	(0.061)	(0.061)
Prior mean × T4	-0.151**	-0.159***	-0.216***	-0.237***
	(0.063)	(0.064)	(0.064)	(0.064)
T1 (SPF expectations)	10.710***	10.801***	10.572***	12.671***
	(3.510)	(3.498)	(3.675)	(3.488)
T2 (CBRT 1-y ahead forecast)	11.315***	11.142***	10.732***	11.650***
	(3.874)	(3.847)	(3.480)	(3.234)
T3 (CBRT 2-y ahead forecast)	1.086	11.818***	9.237***	10.544***
	(3.794)	(3.859)	(3.496)	(3.509)
T4 (Inflation Target)	7.468**	7.730**	11.110***	10.166***
	(3.739)	(3.807)	(3.555)	(3.562)
Firm Controls	✓	✓	✓	✓
Sector FE	✓	✓	✓	✓
Province FE	✓	✓	✓	✓
Observations	1,149	1,149	1,160	1,160
R-squared	0.71	0.70	0.72	0.74

Notes (Fact-1): The table reports estimation results for Equation-(1). The sample is restricted by excluding firms in the treatment group that did not revise their expectations following the treatment. The dependent variable, (Posterior$_i$), refers to CPI in Columns (1)-(2), and to PPI in Columns (3)-(4). Mean is calculated based on triangular distribution, and best refers to the midpoint CPI expectation. The firm-level controls include age, leverage, employment, and production value. Four different treatments are applied. The mean and the standard deviation of prior inflation expectations are 58% and 18, respectively. All regressions are estimated using the Huber robust method to account for outliers and influential observations. Robust standard errors are reported in parentheses. ***p<0.01, **p<0.05, *p<0.1.

Appendix - G - Effectiveness of the Treatment (Fact 1)

In a high-inflation environment, where agents are generally attentive and well informed about past inflation, their learning process can differ markedly from that in a low-inflation setting. To examine how various factors shape the effectiveness of our information treatment, we start with a standard Bayesian-learning framework and assume the following inflation process:

$$\pi_t = \rho\,\pi_{t-1} + \epsilon_t, \quad \epsilon_t \sim N(0, \sigma_\epsilon^2).$$

where the unconditional variance is $\mathrm{Var}(\pi_t) = \frac{\sigma_\epsilon^2}{1-\rho^2}$ if the process is stationary. Suppose the agent receives a noisy signal at time t:

$$s_t = \pi_t + \omega_t, \quad \omega_t \sim N(0, \sigma_\omega^2),$$

and holds a prior forecast $\hat{\pi}$ with variance $\mathrm{Var}(\pi_t)$ as agent knows the underlying process. Bayesian updating then implies:

$$\hat{\pi}_{t|t} = \hat{\pi} + K\big(s_t - \hat{\pi}\big) = (1-K)\,\hat{\pi} + K\,s_t,$$

where the optimal Kalman gain, K, is[50]

$$K = \frac{\mathrm{Var}(\pi_t)}{\mathrm{Var}(\pi_t) + \sigma_\omega^2} = \frac{\frac{\sigma_\epsilon^2}{1-\rho^2}}{\frac{\sigma_\epsilon^2}{1-\rho^2} + \sigma_\omega^2}.$$

Following Weber et al. (2023), three elements determine the magnitude of the Kalman gain—and thus the effectiveness of any information treatment: (i) the agent's prior uncertainty about inflation, (ii) the perceived noise of the signal, and (iii) the persistence of the underlying inflation process. A higher prior variance, a more persistent process, or a more precise (lower-noise) signal each raises the weight that agents place on new information. In a high-inflation environment

[50] Optimal K on the new signal s_t arises from minimizing the mean squared error of the forecast, $\mathscr{L}(\hat{\pi}_{t|t}) = \mathbb{E}\big[(\pi_t - \hat{\pi}_{t|t})^2 \mid s_t\big]$.

such as Türkiye's, prior uncertainty is elevated, expectations are highly dispersed and deanchored. This lack of a firm anchor, in turn, contributes to greater persistence in the inflation process itself. The persistence of the inflation process tends to be greater in high-inflation environments, as documented by Weber et al. (2023). Both of these dynamics—higher fundamental uncertainty and greater persistence—push the Kalman gain upward. Moreover, when the signal originates from a credible source—the central bank in our experiment—agents perceive its noise to be low, which further increases the gain. Taken together, these channels predict a large treatment effect in high-inflation settings, consistent with our empirical findings.

While illustrative, the single-signal model assumes that all agents process the same information. Following recent work such as Weber et al. (2023) and Maćkowiak et al. (2023), and the broader rational-inattention literature, we enrich the framework by positing a set of available inflation signals $S = \{s_{1t}, s_{2t}, ..., s_{Nt}\}$. Because acquiring and processing data are costly, agents do not track every signal.

Consequently, agent i's forecast is the rational expectation of inflation conditional on the subset of signals she chooses to follow,

$$\hat{\pi}_{i,t} = E[\pi_t \mid S_i].$$

The agent's subjective uncertainty before our intervention is the variance of inflation conditional on their knowledge, $\text{Var}(\pi_t \mid S_i)$. In this case, the Kalman gain is:

$$K_i = \frac{\text{Var}(\pi_t \mid S_i)}{\text{Var}(\pi_t \mid S_i) + \sigma_\omega^2} = \frac{k_i \cdot \frac{\sigma_\epsilon^2}{1-\rho^2}}{k_i \cdot \frac{\sigma_\epsilon^2}{1-\rho^2} + \sigma_\omega^2}.$$

where $\text{Var}(\pi_t \mid S_i) = k_i \text{Var}(\pi_t) = k_i \cdot \frac{\sigma_\epsilon^2}{1-\rho^2}$ with $k_i < 1$. Here, $k_i \in [0,1]$ is a measure of the agent's inattention or remaining uncertainty. The simple model above corresponds to the special case where $k_i = 1$. By incurring cognitive costs to process signals, agents learn more about inflation and reduce their uncertainty, leading to a $k_i < 1$. As long as S_i is not fully informative of inflation, $\text{Var}(\pi_t \mid S_i) > 0$, then there is room for learning and agents assign positive weight to new signals.

Each agent i endogenously chooses a specific information set, $S_i \subset S$, balancing the accuracy gains against cognitive costs. Weber et al. (2023) show that the optimal strategy is to acquire just enough information for subjective uncertainty to equal the marginal cost–benefit ratio. In a high-inflation environment, the benefits of accurate forecasting are substantial, incentivizing agents to process more signals. However, the costs may also be higher, as the set of signals required to stay fully informed can be much larger and more complex than in a low-inflation economy. This implies that agents—each with different cognitive capacities and benefits from forecasting accurately—will form different prior beliefs based on the unique set of signals they track, leading to the high dispersion in expectations shown in Figure B1.

Within this framework, an information treatment is an intervention in which the researcher supplies a particular signal, s_p, to an agent. The effectiveness of this treatment is therefore not uniform; it is relative to the agent's pre-existing information set, S_i. This new piece of information is then added to the agent's existing information set. The agent's updated, or posterior, forecast becomes:

$$\hat{\pi}_{i,t|p} = E[\pi_t \mid S_i \cup \{s_p\}].$$

The impact of the treatment depends on whether the provided information is novel. If the information in s_p was already part of the agent's information set S_i (or highly correlated with it), the treatment provides no new information, and the belief update will be zero. Conversely, if the signal is genuinely new, it should lead to a significant belief update. In our experiment, nearly 15% of agents do not change their posterior after receiving the signal, a finding consistent with these individuals already possessing the information provided.

Moreover, the theory can be linked to the empirical literature as discussed in the main text. Weber et al. (2023) use the following regression to estimate the treatment effect:

$$\text{Posterior}_i = \alpha + \beta \text{Prior}_i + \theta I_i + \gamma I_i \text{Prior}_i + \epsilon_i$$

where Posterior $_i$ and Prior $_i$ are the respondent's posterior and prior about the variable of interest,

and I_i is an indicator variable for assignment to the treatment group. The treatment effect is estimated as $\hat{\gamma}/\hat{\beta}$, i.e., the scaled parameter. This average effect masks significant heterogeneity: the treatment should have no impact on agents who already possess the information. Consistent with this, we find that when we exclude the non-responsive individuals (the ~ 15% who do not update their beliefs), the estimated treatment effect becomes substantially larger. Specifically, the $\hat{\gamma}/\hat{\beta}$ ratio increases from the range of -0.16 to -0.33 in the full sample to a range of -X to -Y for this attentive subsample.

Appendix - H - Pass-through in High Inflation (Fact-2)

This section derives the pass-through from a shock to firms' inflation expectations to their own prices, following (Werning, 2022). We assume that firms form their expectations about future aggregate inflation based on a perceived understanding of its dynamics. Specifically, firms believe that the aggregate inflation rate, π_t, follows an AR(1) process around a known long-run inflation anchor, $\bar{\pi}$:

$$\pi_t = (1-\rho_P)\bar{\pi} + \rho_P \pi_{t-1} + \xi_t \tag{12}$$

where there is a non-zero long-run inflation target ($\bar{\pi}$). Here, ρ_P is the perceived persistence parameter of inflation deviations from the target $\bar{\pi}$. In an anchored regime, firms perceive ρ_P to be low. They believe that any deviation of inflation from $\bar{\pi}$ is highly transitory and will quickly revert to the target. Yet, in a de-anchored regime, firms perceive ρ_P to be high. They believe that deviations of inflation from $\bar{\pi}$ are persistent and will linger for a considerable period. The term ξ_t represents shocks to inflation as perceived by the firms. Based on this process , a firm's one-period-ahead expectation of aggregate inflation, formed at time t after observing π_t, is:

$$E_t^{\text{firm}}[\pi_{t+1}] = (1-\rho_P)\bar{\pi} + \rho_P \pi_t \tag{13}$$

We now define the core "expectation shock" variable, ε_t, as the deviation of firms' own one-period-ahead inflation expectation from the long-run target $\bar{\pi}$:

$$\varepsilon_t \equiv E_t^{\text{firm}}[\pi_{t+1}] - \bar{\pi} \tag{14}$$

Substituting (13) into (14):

$$\begin{aligned}\varepsilon_t &= \left[(1-\rho_P)\bar{\pi} + \rho_P \pi_t\right] - \bar{\pi} \\ &= \bar{\pi} - \rho_P \bar{\pi} + \rho_P \pi_t - \bar{\pi} \\ \varepsilon_t &= \rho_P(\pi_t - \bar{\pi})\end{aligned}$$

This shows that the current expectation deviation ε_t is directly proportional to the current deviation of actual inflation (as observed by firms at time t) from its target, scaled by the perceived persistence ρ_P. If $\rho_P = 1$, then this is the benchmark setting in (Werning, 2022), where the expectations changed to a new level and this level becomes the new anchor. When there is a one-time shift, that is permanent and firms expect future aggregate inflation to be anchored at this new level.

Given that ε_t is proportional to the perceived inflation deviation $(\pi_t - \bar{\pi})$, and firms perceive $(\pi_t - \bar{\pi})$ to follow an AR(1) process with persistence ρ_P (from (12), which implies $\pi_t - \bar{\pi} = \rho_P(\pi_{t-1} - \bar{\pi}) + \xi_t$), it is consistent to model ε_t as:

$$\varepsilon_t = \rho \varepsilon_{t-1} + u_t \tag{15}$$

where u_t is an i.i.d. shock. The persistence parameter ρ is set equal to the firms' perceived persistence of inflation deviations, ρ_P (i.e., $\rho \equiv \rho_P$). This setup ensures that the persistence of the expectation shock ε_t directly mirrors how firms perceive the persistence of underlying inflation deviations from the target.

Firms operate under Calvo-type price stickiness: a fraction $1-\theta$ of firms can reset their price each period, while a fraction θ keep their prices unchanged. A firm i resetting its log price $p^*_{i,t}$ at time t considers expected future nominal marginal costs and expected future aggregate price levels/inflation. The standard log-linearized optimal reset price relative to the previous period's

average price level P_{t-1} is:

$$p_t^* - P_{t-1} = \sum_{j=0}^{\infty} (\beta\theta)^j E_t^{\text{firm}}[(1-\beta\theta)mc_{t+j} + \pi_{t+j+1}] \tag{16}$$

Here, β is the firm's discount factor, and mc_{t+j} is the real marginal cost in period $t+j$. From (14), $E_t^{\text{firm}}[\pi_{t+j+1}] = \bar{\pi} + E_t[\varepsilon_{t+j}]$. From (15), $E_t[\varepsilon_{t+j}] = \rho^j \varepsilon_t$. So, $E_t^{\text{firm}}[\pi_{t+j+1}] = \bar{\pi} + \rho^j \varepsilon_t$.

Substitute this into the optimal reset price equation:

$$\begin{aligned} p_t^* - P_{t-1} &= \sum_{j=0}^{\infty} (\beta\theta)^j E_t^{\text{firm}}[(1-\beta\theta)mc_{t+j} + \bar{\pi} + \rho^j \varepsilon_t] \\ &= (1-\beta\theta)\sum_{j=0}^{\infty} (\beta\theta)^j E_t[mc_{t+j}] + \bar{\pi}\sum_{j=0}^{\infty} (\beta\theta)^j + \varepsilon_t \sum_{j=0}^{\infty} (\beta\theta\rho)^j \end{aligned}$$

Using the geometric sum formulas $\sum_{j=0}^{\infty} x^j = \frac{1}{1-x}$:

$$p_t^* - P_{t-1} = (1-\beta\theta)\sum_{j=0}^{\infty} (\beta\theta)^j E_t[mc_{t+j}] + \frac{\bar{\pi}}{1-\beta\theta} + \frac{1}{1-\beta\theta\rho}\varepsilon_t \quad (1) \tag{17}$$

Here, we can observe the pass-through to optimal reset price, PT^{reset}. This measures how a price resetting firm responds to a 1 unit shock in ε_t, holding other expectations constant.

$$\text{PT}^{\text{reset}}(\rho,\theta) = \frac{\partial(p_t^* - P_{t-1})}{\partial \varepsilon_t} = \frac{1}{1-\beta\theta\rho}$$

Now, we can focus on the pass-through to aggregate inflation expectations. Aggregate inflation $\pi_t = P_t - P_{t-1}$ is given by the Calvo aggregation:

$$\pi_t = (1-\theta)(p_t^* - P_{t-1})$$

So, the pass-through from aggregate inflation expectation to average prices

$$\text{PT}(\rho,\theta) = \frac{1-\theta}{1-\beta\theta\rho}$$

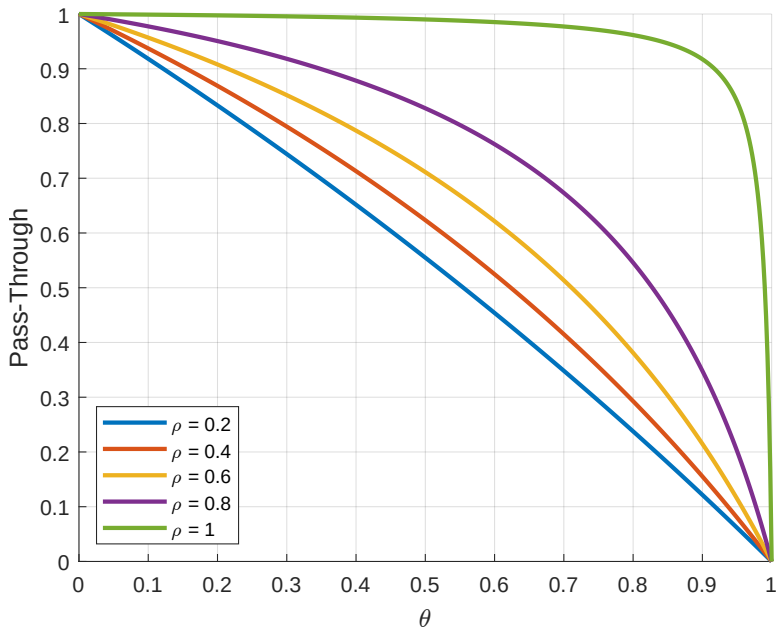


Figure H1: Pass-through rates by persistence

Notes: θ stands for the Calvo parameter, and the pass-through rates are documented for different levels of perceived inflation persistence. A higher persistence and a lower degree of price stickiness mean higher pass-through rates. In high-inflation settings, price stickiness is typically lower, and perceived persistence of inflation is higher.

Figure-H1 illustrates that in an economy where firms perceive expectation deviations as more persistent and where prices are more flexible (characteristic of de-anchored, high-inflation environments), a shock to inflation expectations translates into a much larger immediate increase in actual inflation. We can compare two stylized regimes using a quarterly model with $\beta = 0.99$. We assume a quarterly model with a discount factor $\beta = 0.99$. An "Anchored Economy" represents a low and stable inflation environment. Weber et al. (2023) document that the perceived persistence of inflation decreases with lower inflation. So, we can set $\rho_L = 0.3$ to represent a low perceived persistence of expectation deviations, as this reflects firms' belief that inflation will return to its target without much persistence. In this stable economy, prices are also relatively sticky; we assume they change on average once a year, which corresponds to $\theta_L = 0.75$. A "De-anchored Economy" is the opposite: a high and volatile inflation environment. Here, the perceived persistence of expectation deviations is much higher, so we let $\rho_H = 0.7$. We also set $\theta_H = 0.50$, since prices are more flexible; this corresponds to prices changing on average every six months, reflect-

ing firms' adaptation to a high-inflation environment. In this case, as Figure-H1 shows, the pass-through rates are 32% for the anchored (low-inflation) regime and 77% for the de-anchored (high-inflation) regime. Firms, believing their forecast deviations are persistent, plan to incorporate a larger portion of this belief into their price-setting. This simple exercise shows that pass-through rates are significantly different between low- and high-inflation environments due to differences in both the perceived persistence of the inflation process and the stickiness in firms' price setting. This model has demonstrated, within a stylized New Keynesian framework, how the anchoring of inflation expectations critically shapes the economy's response to idiosyncratic firm-level belief shocks about future inflation.

Real-world economies feature richer dynamics, including active monetary policy responses, endogenous marginal cost movements, and more complex strategic interactions in price setting. These factors would likely modulate the pass-through magnitudes calculated here. However, the qualitative insight—that de-anchoring, by increasing the perceived persistence of expectation shocks and potentially the frequency of price changes, magnifies both the immediate and the cumulative inflationary impact of such shocks—is robust. Moreover, non-linearities inherent in state-dependent pricing models could also lead to pass-through rates that vary with the size of the shock or the state of the economy, offering a richer but more complex picture than the constant coefficients derived here. Overall, this analysis underscores the importance of maintaining well-anchored inflation expectations. When expectations become unanchored, the economy becomes more vulnerable to self-fulfilling belief dynamics, and idiosyncratic shocks can have disproportionately large and persistent effects on aggregate inflation.

Appendix - I - Model with a Debt Structure (Fact 3-7)

This appendix details the structure of the New Keynesian model used to analyze the macroeconomic effects of firm-level inflation expectation shocks. The economy consists of a representative household, a continuum of monopolistically competitive intermediate-goods firms, a perfectly competitive final-goods firm, and a central bank. The model is specified in a closed-economy setting, with a single exogenous shock driving business cycle fluctuations.

The economy is populated by a representative household that maximizes its expected lifetime utility. The household features external habit formation in consumption, captured by the term ηC_{t-1}, and derives utility from consumption C_t and disutility from labor N_t. The objective function is given by:

$$\max_{\{C_t, N_t, B_{t+1}, B^L_{t+1}\}} E_0 \sum_{t=0}^{\infty} \beta^t \left[\frac{(C_t - \eta C_{t-1})^{1-\sigma}}{1-\sigma} - \frac{\chi}{1+\upsilon} N_t^{1+\upsilon} \right], \tag{18}$$

where β is the discount factor, η is the habit persistence parameter, σ is the coefficient of relative risk aversion, and υ is the inverse Frisch elasticity of labor supply. The household's decisions are subject to the nominal budget constraint:

$$P_t C_t + Q_t B_{t+1} = W_t N_t + B_t - T_t + \Pi_t. \tag{19}$$

Here, P_t is the price level, W_t is the nominal wage, Π_t are profits, T_t are lump-sum taxes, and $Q_t = 1/R_t$ is the price of a one-period bond.

The production side consists of a continuum of monopolistically competitive firms producing differentiated goods $Y_t(k)$ with a linear production technology using labor as the sole input, $Y_t(k) = N_t(k)$. A key feature of the model is a working capital channel: we assume firms must finance their wage bill, $W_t N_t$, via within-period borrowing (Christiano et al., 2005). This introduces the cost of financing directly into the firm's marginal cost. The real marginal cost of producing one

additional unit, $\widehat{mc}_t$, is the sum of the real wage, $\hat{w}_t$, and the real cost of financing that wage:

$$\widehat{mc}_t = \hat{w}_t + r_{ss} \cdot \hat{R}^{\text{debt}}_{\text{eff},t}. \tag{20}$$

where the real wage, $\hat{w}_t$, is derived from log-linearizing the household's labor supply condition, and the financing cost component is scaled by the steady-state net real interest rate, $r_{ss} = 1/\beta - 1$. The effective nominal borrowing cost, $\hat{R}^{\text{debt}}_{\text{eff},t}$, is a weighted average of available rates.

A firm k that can reset its price chooses an optimal price $P^*_t(k)$ to maximize the expected present value of its nominal profits. The optimization problem is:

$$\max_{P^*_t(k)} E_t \sum_{j=0}^{\infty} (\beta\theta)^j \frac{u'(C_{t+j})}{u'(C_t)} \left[\frac{P^*_t(k)}{P_{t+j}} Y_{t+j}(k) - MC_{t+j} Y_{t+j}(k) \right] \tag{21}$$

subject to the demand curve $Y_{t+j}(k) = (P^*_t(k)/P_{t+j})^{-\epsilon} Y_{t+j}$. Here, θ is the Calvo probability of not resetting the price, and MC_{t+j} is the real marginal cost.

Aggregating the log-linearized first-order condition from this problem yields the New Keynesian Phillips Curve (NKPC). We model the firm's expectation shock, $\varepsilon_{f,t}$, as an information shock that affects its subjective expectation of future inflation, $E^f_t[\pi_{t+1}] = E_t[\pi_{t+1}] + \varepsilon_{f,t}$. This shock enters the firm's price-setting problem, leading to the following NKPC specification:

$$\hat{\pi}_{agg,t} - \gamma \hat{\pi}_{agg,t-1} = \beta E_t(\hat{\pi}_{agg,t+1} + \varepsilon_{f,t}) + \kappa \widehat{mc}_t. \tag{22}$$

The slope parameter $\kappa = (1-\theta)(1-\beta\theta)/\theta$, and $\widehat{mc}_t$ is the full marginal cost from Eq. (20). While κ is standard, the working capital channel makes $\widehat{mc}_t$ more sensitive to output fluctuations, effectively steepening the Phillips Curve's slope with respect to output. The shock process is $\varepsilon_{f,t} = \rho_f \varepsilon_{f,t-1} + \nu_{f,t}$.

The firm's total demand for working capital is its nominal wage bill, $D_t = W_t N_t$. To meet this demand, we model the firm's financing decisions using a nested CES cost-minimization framework. In the first stage, the firm chooses its optimal mix of domestic (TL) and foreign currency

(FX) financing. In the second stage, within its TL financing, it chooses the optimal maturity structure (short-term vs. long-term).

Maturity Choice

We begin with the inner layer of the decision: how a firm constructs a composite of TL financing services, $D_{TL,t}$, from short-term debt, $D_{S,t}$, and long-term debt, $D_{L,t}$. We assume the firm combines these two instruments via a CES aggregator with an elasticity of substitution $\sigma_M > 0$:

$$D_{TL,t} = \left[(s_{S,ss})^{\frac{1}{\sigma_M}} (D_{S,t})^{\frac{\sigma_M - 1}{\sigma_M}} + (1 - s_{S,ss})^{\frac{1}{\sigma_M}} (D_{L,t})^{\frac{\sigma_M - 1}{\sigma_M}} \right]^{\frac{\sigma_M}{\sigma_M - 1}} \tag{23}$$

where $s_{S,ss}$ is the steady-state share of short-term debt in the TL portfolio. The firm's objective is to assemble the required amount of $D_{TL,t}$ by choosing the mix of $D_{S,t}$ and $D_{L,t}$ that minimizes the total expected real cost. A key assumption is that the perceived real cost of long-term debt is more sensitive to expected inflation due to its longer duration. Under the expectations hypothesis of the term structure, the long-term interest rate $\hat{R}_{L,t}$ (maturity N) is the average of expected future short-term rates:

$$\hat{R}_{L,t} = \frac{1}{N} \sum_{j=0}^{N-1} E_t \hat{R}_{t+j}. \tag{24}$$

The formal optimization problem is:

$$\min_{D_{S,t}, D_{L,t}} \left\{ \underbrace{(R_t - E_t^f [\hat{\pi}_{agg,t+1}])}_{\text{Real Cost of ST Debt}} D_{S,t} + \underbrace{(R_{L,t} - \psi_L E_t^f [\hat{\pi}_{agg,t+1}])}_{\text{Real Cost of LT Debt}} D_{L,t} \right\}$$

subject to the CES constraint above. The parameter $\psi_L > 1$ is a structural parameter reflecting the greater inflation sensitivity of long-term debt. The assumption that $\psi_L > 1$ captures the well-documented empirical fact that long-term nominal rates are more sensitive to inflation expectations than short-term rates due to factors like duration and inflation risk premia (e.g., Gürkaynak et al. (2005)).

The first-order condition for this standard cost-minimization problem yields the optimal relative demand for the two debt types:

$$\frac{D_{L,t}}{D_{S,t}} = \left(\frac{1 - s_{S,ss}}{s_{S,ss}}\right)\left(\frac{R_t - E_t^f[\hat{\pi}_{agg,t+1}]}{R_{L,t} - \psi_L E_t^f[\hat{\pi}_{agg,t+1}]}\right)^{\sigma_M} \tag{25}$$

To derive the final rule for our log-linear model, we take the log of this expression. Let $\hat{x}$ denote log-deviations from the non-stochastic steady state.

$$\hat{d}_{L,t} - \hat{d}_{S,t} = \sigma_M \left[\log(R_t - E_t^f[\hat{\pi}_{agg,t+1}]) - \log(R_{L,t} - \psi_L E_t^f[\hat{\pi}_{agg,t+1}])\right] \tag{26}$$

We linearize the log terms using the approximation $\log(X - Y) \approx \log(X_{ss}) + \hat{x} - Y/X_{ss}$ for a variable Y that is zero in steady state. In our case, $X_{ss} = R_{ss}$ (the gross steady-state nominal rate) and the expectation terms are zero. This yields:

$$\hat{d}_{L,t} - \hat{d}_{S,t} \approx \sigma_M \left[\left(\hat{R}_t - \frac{E_t^f[\hat{\pi}_{agg,t+1}]}{R_{ss}}\right) - \left(\hat{R}_{L,t} - \frac{\psi_L E_t^f[\hat{\pi}_{agg,t+1}]}{R_{ss}}\right)\right] \tag{27}$$

$$= -\sigma_M \left[(\hat{R}_{L,t} - \hat{R}_t) - \frac{(\psi_L - 1)}{R_{ss}} E_t^f[\hat{\pi}_{agg,t+1}]\right] \tag{28}$$

This equation provides the microfounded relationship for the optimal relative quantities of debt. Incorporating the definition of the firm's subjective inflation expectation, $E_t^f[\pi_{t+1}] = E_t[\pi_{t+1}] + \omega\varepsilon_{f,t}$, we arrive at the share of long-term debt:

$$\hat{s}_t = (1 - s_{L,ss})\sigma_M \left[-(\hat{R}_{L,t} - \hat{R}_t) + \frac{(\psi_L - 1)}{R_{ss}}(E_t\hat{\pi}_{agg,t+1} + \omega\varepsilon_{f,t})\right]. \tag{29}$$

Currency Choice

The firm chooses its mix of the TL financing composite, $D_{TL,t}$, and FX financing, $D_{FX,t}$, to meet its total working capital needs, D_t. This choice is governed by a CES aggregator with an elasticity

of substitution $\sigma_C > 0$:

$$D_t = \left[(\xi_{ss})^{\frac{1}{\sigma_C}} (D_{TL,t})^{\frac{\sigma_C - 1}{\sigma_C}} + (1 - \xi_{ss})^{\frac{1}{\sigma_C}} (D_{FX,t})^{\frac{\sigma_C - 1}{\sigma_C}} \right]^{\frac{\sigma_C}{\sigma_C - 1}} \tag{30}$$

where ξ_{ss} is the steady-state share of TL-denominated debt.

> The firm's objective is to minimize its total real financing cost, given by $r_{TL,t} D_{TL,t} + r_{FX,t} D_{FX,t}$, where $r_{TL,t}$ and $r_{FX,t}$ are the real cost indices of each financing composite. We make the simplifying assumption that the real cost of FX debt is constant ($\hat{r}_{FX,t} = 0$), which would hold under Uncovered Interest Parity (UIP) with stable foreign conditions. While shocks to inflation expectations could in principle affect exchange rate expectations and violate this condition, we abstract from this channel since we do not have evidence on exchange rate pass-through.

The first-order condition from this cost-minimization problem sets the ratio of quantities equal to the inverse ratio of their real costs, leading to the optimal relative demand for TL versus FX financing:

$$\frac{D_{TL,t}}{D_{FX,t}} = \left(\frac{\xi_{ss}}{1 - \xi_{ss}} \right) \left(\frac{r_{FX,t}}{r_{TL,t}} \right)^{\sigma_C} \tag{31}$$

Log-linearizing this expression and applying the assumption that $\hat{r}_{FX,t} = 0$ yields:

$$\hat{d}_{TL,t} - \hat{d}_{FX,t} = -\sigma_C \hat{r}_{TL,t} \tag{32}$$

This equation shows that the firm's optimal mix of currencies is determined by the real cost of the TL financing composite. Its log-linearized form is a weighted average of the expected real costs of its components:

$$\hat{r}_{TL,t} \approx s_{S,ss} \left(\hat{R}_t - \frac{E_t^f [\hat{\pi}_{agg,t+1}]}{R_{ss}} \right) + (1 - s_{S,ss}) \left(\hat{R}_{L,t} - \frac{\psi_L E_t^f [\hat{\pi}_{agg,t+1}]}{R_{ss}} \right)$$

A positive inflation expectation shock, $\varepsilon_{f,t}$, increases $E_t^f [\hat{\pi}_{agg,t+1}]$, which lowers the perceived real cost index $\hat{r}_{TL,t}$. As shown above, a fall in $\hat{r}_{TL,t}$ makes TL financing more attractive, causing

firms to increase their share of TL debt, $\hat{\xi}_t$.

The log-deviation of the share of TL debt, $\hat{\xi}_t$, is directly proportional to this optimal relative demand shift:

$$\hat{\xi}_t \approx (1-\xi_{ss})(\hat{d}_{TL,t} - \hat{d}_{FX,t}) = -(1-\xi_{ss})\sigma_C \hat{r}_{TL,t}. \tag{33}$$

This equation provides the microfounded basis for the currency share decision in our model, showing how inflation expectations, by altering the relative cost of financing, induce firms to shift their currency mix.

The system is closed by the central bank, which sets the short-term nominal interest rate $\hat{R}_t$ according to a standard Taylor-type rule with an interest rate smoothing component:

$$\hat{R}_t = \rho_R \hat{R}_{t-1} + (1-\rho_R)\big(\phi_\pi \hat{\pi}_{agg,t} + \phi_y \hat{y}_t\big). \tag{34}$$

Here, $\rho_R \in [0,1)$ is the smoothing parameter. The full system of log-linearized equations determines the rational expectations equilibrium of the economy.

Model Dynamics and Stylized Facts

The model's response to a positive firm inflation expectations shock ($\nu_{f,t} > 0$) generates dynamics consistent with the stylized facts.

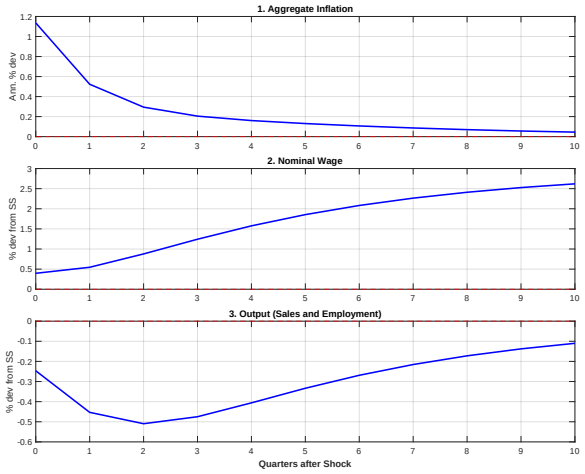
- **Fact 2 (Higher wage, cost, price expectations):** The shock $\varepsilon_{f,t}$ enters the NKPC as an expected inflation term, directly increasing current inflation $\hat{\pi}_{agg,t}$. This leads to higher nominal wages ($\widehat{nom_w}_t$) and a higher price level. The firm's marginal cost ($\widehat{mc}_t$) also rises due to the policy response feeding through the working capital channel.
- **Fact 3 (Increased pessimism):** The rise in inflation prompts monetary tightening. Higher policy rates dampen aggregate demand via the IS curve and directly raise firms' costs via the working capital channel, both contributing to a decline in output $\hat{y}_t$, which we interpret as economic pessimism.

- **Fact 4 (Increased credit usage with compositional shift to long-term borrowing):** Total nominal credit demand (D_t) may rise if the inflationary effect on the nominal wage bill outweighs the contractionary effect on real output. Concurrently, the shock lowers the perceived real cost of long-term debt more than short-term debt, causing firms to shift their financing composition towards longer maturities ($\hat{s}_t$ increases).
- **Fact 5 (More borrowing in LC, less in foreign currency):** The expectation shock lowers the overall real cost index of TL financing ($\hat{r}_{TL,t}$) relative to the stable cost of FX financing. This induces a substitution towards TL debt, increasing its share ($\hat{\xi}_t$ rises).
- **Fact 6 (Increased foreign currency earnings):** This fact is the mirror image of Fact 5. The same logic that makes FX liabilities unattractive (due to their stable real cost when domestic inflation is expected to rise) makes FX *assets* or earnings attractive as a hedge against the expected erosion of domestic currency's purchasing power. While not explicitly modeled, this is a direct qualitative implication.
- **Fact 7 (Lower growth in sales and employment):** The fall in aggregate output $\hat{y}_t$ (Fact 2) directly translates to lower employment ($\hat{n}_t = \hat{y}_t$) and lower real sales. The model does not feature inventories, yet it is possible to show upward pressure on inventory when firms expect prices to rise.

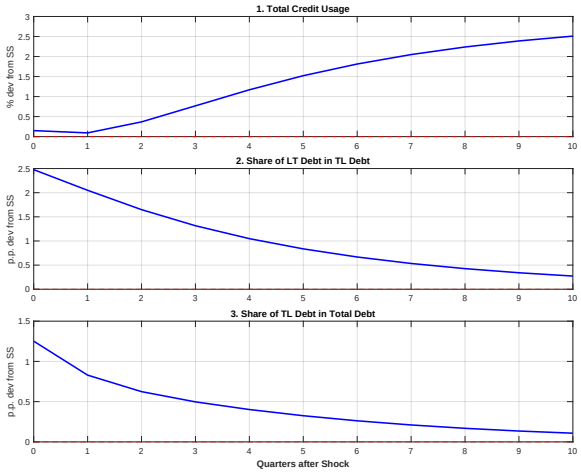
Table H1: Model Calibration

Parameter	Value	Description	Source
A. Household Preferences			
β	0.99	Subjective discount factor	Real rate of 4%
σ	1.0	Risk aversion	Standard
υ	1.0	Inverse Frisch elasticity	Standard
η	0.50	Habit persistence parameter	Standard
B. Firm Technology & Pricing			
ϵ	6.0	Elasticity of substitution btw. goods	SS markup of 20%
θ	0.50	Calvo: price stickiness	Prices change every 6 months
γ	0.0	NKPC: Indexation to past inflation	No indexation
C. Debt Structure			
$s_{L,ss}$	0.50	SS share of Long-Term debt in TL portfolio	Data
σ_M	6.0	Elasticity of substitution (ST vs. LT debt)	Calibrated
ψ_L	1.5	Inflation sensitivity of LT debt	Duration/risk premium
ξ_{ss}	0.60	SS share of TL debt in total portfolio	Data
σ_C	2.0	Elasticity of substitution (TL vs. FX debt)	Calibrated
D. Monetary Policy & Shocks			
ϕ_π	1.10	response to inflation	Satisfies Taylor Principle
ϕ_y	0.25	response to output gap	Standard
ρ_R	0.70	interest rate smoothing	Standard
ρ_{ef}	0.80	Persistence of expectation shock ($\varepsilon_{f,t}$)	Standard

Notes: Parameters are calibrated at a quarterly frequency. SS denotes steady state.



(a) Prices, wages, and sales (Facts 1, 2, & 6)



(b) Debt structure (Facts 3, 4, & 6)

Notes: **Impulse responses to a one-standard-deviation firm inflation-expectations shock $\varepsilon_{f,t}$.** Horizontal axis: quarters after the shock; vertical axis: percent deviations from steady state. See Appendix A for model equations and calibration.