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THE SPEED OF FIRM RESPONSE TO INFLATION

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The Speed of Firm Response to Inflation

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**ABSTRACT**

This paper analyses the response of UK firms to monthly CPI inflation releases using high-frequency data from a large business survey. Firms' inflation perceptions and expectations respond within hours of new inflation data releases. Firm expectations are most responsive when inflation coverage in the media is elevated, suggesting a key role for the media in focusing attention on data releases. Furthermore, firms respond to changes in inflation data, but not to surprises relative to professional forecasts. This highlights a distinction between "Wall Street", where financial markets respond to inflation surprises, and "Main Street", where firms respond to media inflation headlines.

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# 1 Introduction

Do firms pay attention to aggregate inflation dynamics? Do they respond to changes in headline rates or surprises relative to professional forecasts? Is higher media coverage of inflation correlated with stronger responses by firms? As inflation rates increased across developed countries starting in the second half of 2021, there has been an increased focus on the price-setting behaviour and expectations formation of households and firms (Mann, 2022; Powell, 2022; Reis, 2023a,b). In this paper, we contribute to the research agenda by analysing the response of firms to aggregate inflation data releases using a large economy-wide business survey in the UK, and specific questions on inflation perceptions and expectations. We use an estimation strategy which exploits daily and even *hourly* variation in firm responses. To the best of our knowledge, the use of such high-frequency data for firms is a key contribution to the literature.

We use data from the Decision Maker Panel (DMP) survey for the empirical analysis in this paper.<sup>1</sup> The DMP is a monthly survey of CFOs and Finance Directors across businesses in the UK. It was launched in 2016. Firms are regularly asked about their realisations and their year-ahead expectations for a number of variables, including own prices, sales, employment, and capital expenditure. In addition, starting in May 2022, newly designed questions were introduced in the survey, focusing on CPI inflation perceptions and CPI inflation expectations. We leverage all these data to study the impact of monthly CPI data releases on firm expectations.

Our empirical methodology uses the overlap between survey dates (the DMP collects responses from firms for two weeks each month, and is able to identify the precise date and time of the survey submission) and the publication date of official CPI inflation data (usually on a Wednesday during the second half of each month). This allows us to test for the effects of data releases at the *daily* frequency, comparing the average responses of firms in the few days before versus after the latest inflation data are announced. We analyse the response to changes in headline inflation rates and surprises relative to professional forecasts within the same empirical specification. Within these tight windows, few other events are likely to influence firm

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<sup>1</sup><https://decisionmakerpanel.co.uk/>

expectations, which means our results are plausibly causal. The panel dimension of the survey allows us to include a demanding set of firm, time, and release-window fixed effects in our main specification. In further analysis, we also extend the estimation windows to track how expectations adapt over time.

We present three key findings. First, we document that firms have been *attentive* to CPI inflation trends. CPI inflation perceptions update very quickly following monthly data releases, with a highly significant impact seen from the day of the release. The pass-through from CPI inflation to perceptions is around 70% on impact, and remains highly significant over subsequent days. We also show that inflation perceptions are equally responsive to positive as well as negative changes in CPI inflation.

Second, we show that firm own-price growth expectations respond to changes in headline inflation, but not to surprises (defined as outturns relative to professional forecasts). The ability to study firm output price expectations is a key contribution, as it is the most relevant metric for what will happen to future prices. We find that over the 2022-2024 period, a one percentage point increase in headline CPI inflation is associated with a 0.3 percentage point increase in expected year-ahead own-price growth. The response to the unexpected component is small and highly insignificant. This highlights a key difference between financial markets (i.e. "Wall Street") and firms (i.e. "Main Street"), and the outturns which ultimately influence firm expectations.

In additional analysis, we find that, in contrast to inflation perceptions, the sensitivity of own-price expectations is non-linear. Positive CPI inflation changes have significant effects on own-price expectations, while the effects of negative CPI inflation changes are quantitatively smaller and insignificant. We also show that these effects on price expectations are absent in the previous, relatively low-inflation period between 2017 and 2021. These effects highlight how firm expectation formation changes in high-inflation environments. Likewise, the lower responsiveness to CPI inflation decreases is consistent with the slower observed decline in firm price growth and expectations, even as CPI inflation has fallen and external shocks dissipated (see Figure 1).

Third, we explore the potential mechanisms which may explain the sensitivity of firm own-price expectations to monthly data releases. One hypothesis is that firms

are more attentive to aggregate inflation because media coverage of inflation has been elevated since the start of 2022. To test this, we create a daily index of 'inflation media chatter' as the share of all articles in UK newspapers which discuss inflation. We find that firms' expectations are more responsive to CPI inflation changes during months with particularly elevated inflation media coverage. Furthermore, we show that firms also update their one-year ahead CPI inflation expectations in response to CPI inflation changes, but not to CPI surprises. Together with the main results on own-price expectations, this suggests a desire to keep relative prices stable. Three-year ahead CPI inflation expectations are not responsive to CPI inflation changes or CPI surprises, suggesting they have remained more firmly anchored even in times of high headline inflation.

**Related Literature** This paper contributes to three strands of the literature. First, it relates to studies which analyse the reaction of expectations to macroeconomic or policy news. These papers can be grouped in two main categories: (1) whether they focus on household or firm-level data on expectations, and (2) the type of news being considered. The closest study to ours is [Gorodnichenko et al. \(2023\)](#); the authors use quarterly survey data from Israeli firms and find that unexpected changes in CPI inflation lead to increases in year-ahead aggregate inflation expectations. For households, [Binder \(2021\)](#) shows that inflation expectations are also responsive to CPI releases in the US, but only for highly-numerate respondents. [Binder et al. \(2024\)](#) show that inflation expectations of Republican households were more responsive to CPI releases during 2021 than expectations of Democrats. [Link et al. \(2023\)](#) use survey data from German firms and households, and find that households update their expectations more strongly than firms when presented with information about current ECB policy rates. [Baumann et al. \(2024\)](#) show that firm inflation expectations are responsive to information on both past inflation and professional inflation forecasts. Beyond these studies, a large literature has analysed the responsiveness of firm expectations to monetary policy announcements and surprises, using quarterly data from Italy ([Bottone and Rosolia, 2019](#)), quarterly data from Israel ([Gorodnichenko et al., 2023](#)), monthly data from Germany ([Enders et al., 2019](#)), and monthly data from the DMP for the UK ([Di Pace et al., 2023](#)). In general, firm inflation expectations are in-

deed sensitive to monetary policy decisions in the expected direction.<sup>2</sup> [Di Pace et al. \(2023\)](#), in particular, use the same survey data as us, and show that firms respond significantly to changes in Bank of England policy rates, where higher rates lead to lower price expectations. Our main contribution here is showing that when inflation is high, firms respond by adjusting their own-price expectations in response to changes in headline CPI inflation rates. However, we find no significant response of expectations to unexpected changes in CPI inflation, defined as deviations from professional forecasts. We provide detailed analysis on the potential mechanisms which may explain this effect. Firms also increase their near-term CPI inflation expectations in response to positive CPI inflation changes, which combined with the results on own-price expectations, suggests a desire to keep relative prices stable. Medium-term (three-year ahead) CPI inflation expectations are more firmly anchored and do not respond to changes in CPI inflation or CPI surprises.

Second, this paper contributes to the literature that analyses the (time-varying) attention of economic agents. There is by now an extensive theoretical and empirical literature on rational inattention (see [Maćkowiak et al., 2023](#) for a recent review). A key paper is [Maćkowiak and Wiederholt \(2009\)](#). The authors show that firm attention and the price response to idiosyncratic and aggregate demand shocks depends on the relative volatility of these disturbances. When the volatility of idiosyncratic shocks is higher, firm prices are more responsive to these developments, which can explain strong real effects of aggregate nominal shocks. On the empirical side, multiple papers have documented that firms are not fully informed about aggregate economic conditions. [Savignac et al. \(2021\)](#), for instance, document a significant dispersion of perceptions around recent inflation across French firms, indicating inattention to macroeconomic conditions. Likewise, [Candia et al. \(2021\)](#) show that only around 20% of US CEOs are aware of the Federal Reserve's inflation target. However, an additional key finding is that the level of attention is *endogenous* to the economic environment. In a recent paper, [Weber et al. \(2023\)](#) show, using household and firm-level survey data across multiple countries, that agents are significantly more attentive to inflation dynamics when inflation is high. This result has been replicated in a number of different settings and using a variety of methodologies ([Bracha and Tang, 2022](#);

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<sup>2</sup>There are also numerous studies which study the effect of monetary policy on household expectations, e.g. [Coibion et al., 2022](#); [Lamla and Vinogradov, 2019](#); [Lewis et al., 2019](#); [Rast, 2021](#).

Cavallo et al., 2017; Korenok et al., 2022; Link et al., 2024; Pfäuti, 2024). Link et al. (2024) also document that higher attention to inflation is positively correlated with more media consumption of inflation news, across both households and firms. We contribute to these studies in three ways. First, we document that in 2022-2024, firm CPI inflation perceptions have closely followed actual CPI inflation, and they have adjusted rapidly following monthly data releases. Furthermore, we find evidence that firms' own-price expectations have only been responsive to CPI releases when inflation is high, but not during the relatively low-inflation years of 2017-2021. Finally, we construct a new index of 'inflation media chatter' which captures the discussions of inflation across all UK newspapers. We find that firm own-price expectations are more responsive to CPI releases precisely in those months when inflation media chatter is elevated. These results are consistent with the evidence on time-varying attention to macroeconomic data.<sup>3</sup>

Lastly, this paper contributes to the literature analysing how agents perceive economic shocks to propagate. In other words, their 'subjective models' of the macroeconomy. Among households, it is a common stylised fact that higher inflation is associated with worse expected economic performance (Binetti et al., 2024; Stantcheva, 2024). Macaulay (2022) shows that more households report inflation makes the economy weaker when inflation is higher. McClure et al. (2022) find a positive correlation between unemployment and inflation expectations among US managers. This suggests respondents, on average, have a supply-side view of the economy. Among firms, there is more heterogeneity in these views. Candia et al. (2023) show that across a number of countries (e.g. Ukraine, South Africa), firms associate higher inflation with lower output growth expectations. In others (e.g. New Zealand, Sweden), however, this relationship is positive, indicative of a more demand-side view. Andre et al. (2022) document substantial heterogeneity in these 'subjective models' of the economy, both across households and experts. In this paper, we show that firms perceive changes in CPI inflation as signals about the future persistence of inflation. Positive CPI inflation changes lead to increases in one-year ahead CPI inflation expectations. Furthermore, we show that even though firms are paying attention to

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<sup>3</sup>In a related setting, Mikosch et al. (2024) use household and firm survey data from Switzerland to show that higher exposure to exchange rates is associated with higher demand for information on exchange rate movements, consistent with models of endogenous information acquisition.

inflation data, they still respond to changes in headline rates, not CPI surprises. This highlights an important distinction between “Main Street” and “Wall Street”, and the outturns which ultimately influence firm expectations.

The rest of the paper is organised as follows: Section 2 describes the data, Section 3 discusses the empirical methodology, and Section 4 presents the results. Finally, Section 5 concludes.

## 2 Data

This section outlines the main data sources used in the paper.

**Firm-level data** To estimate the impact of CPI releases on firms’ inflation perceptions and expectations, we use data from the Decision Maker Panel (DMP) survey.<sup>4</sup> The DMP is a monthly survey of businesses in the UK. It was launched in late 2016, and is organised by the Bank of England, in collaboration with the University of Nottingham and King’s College London. On average, it receives around 2,500 responses each month (Figure A1), with an active response rate around 50%. The survey is representative of industries in the UK and each month samples around 4% of UK employment (see Bunn et al., 2024 for further details on survey representativeness).<sup>5</sup>

In the DMP, firms are regularly asked about their realised firm performance along a number of dimensions, including sales growth, own output price growth, employment, and capital expenditure. In addition, firms are asked about their year-ahead expectations for these variables. In particular, they are asked to provide a five-point distribution for their expectations and assign probabilities to each of the five scenarios. Figure A3 shows the template for this question, particularly for own-price expectations. In Panel A, firms are invited to provide five scenarios for their expected own-price growth over the next 12 months: a lowest, low, middle, high, and highest value. In Panel B, they assign a probability to each of the scenarios they indicated. This format allows us to analyse not only the mean expected price growth (as the weighted average of the scenarios), but also construct firm-level measures of uncer-

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<sup>4</sup>Monthly aggregated statistics on own-price growth, own-price expectations, and CPI expectations are available on the DMP website: <https://decisionmakerpanel.co.uk/>

<sup>5</sup>Figure A2 compares the coverage of the DMP survey across industries and by firm size with data for the universe of UK businesses from the Business Register. Panel A shows that the DMP broadly matches industry shares in the UK. However, the share of employment in the DMP is skewed towards larger firms (Panel B). For this reason, we weight results by industry and employment shares.

tainty and skewness over future price growth (see [Yotzov et al. \(2023\)](#), for example, who analyse firm-level inflation uncertainty using data from the DMP). Finally, since the DMP is a panel, we can compare firm expectations with their realisations *a year later*. [Figure A4](#) presents this comparison for own-price growth, and shows that there is a very strong positive correlation between own-price expectations and realisations a year later. In other words, expectations are generally a very good guide for how firms actually change their prices.

(Figure 1)

[Figure 1](#) compares the trends in firm annual own-price growth and expected price growth from the DMP with annual Consumer Price Index (CPI) inflation for the UK. Annual price growth (dark blue line) among DMP firms closely matches the trends in CPI inflation in the pre-pandemic period. Since 2020, firm price growth has continued to track CPI inflation trends, although changes in the CPI inflation have been somewhat larger, both on the downside and the upside. A large portion of this deviation can be explained by energy prices, which have a larger weight in the CPI basket and contributed to the sharp increase in CPI inflation in 2022-2023.<sup>6</sup> Nevertheless, the trends in CPI and firm-level inflation series are highly correlated. This can be further corroborated by direct evidence on the importance of CPI inflation for firm pricing decisions. When asked, around 60% of firms report CPI inflation as one of the top three or the most important factor in their own pricing decisions ([Figure A5](#)).<sup>7</sup>

In addition to questions about their own output price growth, since May 2022 firms in the DMP have been asked about their current CPI inflation perceptions and their CPI inflation expectations, both one year and three years in the future. [Figure A6](#) shows the precise format of these questions in the survey. In contrast to the questions on own-price expectations, firms are asked to provide only a point estimate for their CPI inflation perceptions and expectations.

[Figure 2](#) presents the trends in CPI inflation perceptions and expectations. In

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<sup>6</sup>This is not the only difference between the DMP series and CPI inflation. The DMP is a sample of firms across the whole economy, whereas CPI inflation covers only consumer-facing firms. Furthermore, the CPI is constructed by weighting price changes by their shares in a representative consumer basket. In contrast, price growth in the DMP is weighted by industry and employment shares.

<sup>7</sup>The question on the importance of CPI inflation was asked between May and July 2023.

Panel A, current CPI inflation perceptions are compared to the actual CPI inflation rate, *on the day* when firms answered the question. This corrects for the fact that CPI releases occur during the survey window. On average, CPI inflation perceptions have tracked CPI inflation rates very well over the past two years, with only small ‘perception errors’ between the two series. Panel B shows the distribution of the CPI inflation perception errors, where a positive value indicates inflation perceptions exceeding actual CPI inflation. These are tightly distributed around zero over the sample period, ranging from -0.4pp at the 25th percentile to 0.3pp at the 75th percentile. In Section 4.1 we analyse in more detail the responsiveness of firms’ CPI inflation perceptions to monthly CPI releases.

(Figure 2)

Panel C, meanwhile, shows the trends in one-year and three-year ahead CPI inflation expectations. Expectations for CPI inflation one year ahead have fallen materially since peaking at 9.5% in September 2022. In December 2024, firms expected CPI inflation to be 3% one year ahead. Three-year ahead CPI expectations have been more stable since the data began, but have nevertheless declined over 2023 and in 2024. In December 2024, firms expected CPI inflation to be 2.9% three years ahead. Although this rate is certainly elevated relative to the inflation target of 2%, it is consistent with inflation expectations typically displaying an upward bias among households and firms (e.g. [Coibion et al., 2018](#); [D’Acunto et al., 2023](#)). In addition, these data are only collected since May 2022, so it is unfortunately not possible with our data to see what medium-term CPI expectations were in the pre-pandemic low-inflation environment.

**Aggregate inflation data** In addition to the firm-level data from the DMP, we collect a number of further data series for our analysis. First, we obtain several series of inflation rates published by the UK Office for National Statistics (ONS). These include annual CPI inflation, as well as producer price inflation (PPI) rates for both input and output prices. Figure A7 shows the evolution of these three series since 2016. Relative to CPI inflation, output PPI and, particularly input PPI, have been more volatile over the last few years, and indeed have turned negative in the last months of data. However, it should be noted that PPI rates are only reflective of prices for UK manufacturers, and are therefore less representative for trends among

services sector firms.<sup>8</sup> Still, in robustness checks, we also analyse the responsiveness of firms' expectations to changes in these PPI series as well.

Second, we collect data on forecasts for monthly CPI inflation from Bloomberg. These are median forecasts based on surveys of (at least ten) 'qualified economists'. Using these data, we construct a series of 'CPI surprises', which compares the actual CPI inflation outturns to the median CPI forecast. Panel A in Figure A8 shows the trends in CPI inflation alongside the median forecasts. In general, forecasts were accurate in 2022, and tracked the evolution of aggregate price growth.<sup>9</sup> In 2023, there were a series of positive CPI surprises, where inflation was more persistent than expected. Panel B compares the changes in headline CPI inflation to the CPI surprises. Naturally, CPI surprises (shown on the vertical axis) have been much smaller in magnitude compared with changes in CPI inflation rates. On average over 2022-2024, the median CPI surprise was 0.1 percentage point in absolute value, whereas the median change in CPI inflation was 0.3 percentage points in absolute value. In our main empirical specification, we compare the responsiveness to changes in headline CPI inflation versus CPI surprises.

**Inflation media coverage** In order to test whether media coverage of inflation amplifies the responsiveness of firms to CPI releases, we construct an 'inflation media chatter' index using data from all UK newspapers gathered from Access World News' NewsBank service. The index measures the share of articles at a daily frequency which mention at least one of the following three keywords: (1) 'inflation', (2) 'CPI', or (3) 'Consumer Price Index' over the period 2010-2024. The main results using this index are presented in Section 4.3.

Finally, we collect daily stock market data and exchange rate data which we use as additional controls for robustness. We also collect data on daily Economic Policy Uncertainty (EPU) for the UK as an additional control in our regressions.<sup>10</sup>

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<sup>8</sup>There is also a Services Producer Price Inflation series produced by the ONS. However, this is only available at a quarterly frequency, and therefore we do not use it in our analysis.

<sup>9</sup>There have been 36 CPI data releases between January 2022 and December 2024. Of these, 19 have been characterised by positive CPI surprises (i.e. outturn above Bloomberg forecast), 12 have been negative CPI surprises, and in five cases there has been no surprise relative to the forecast.

<sup>10</sup>The data on daily UK EPU are taken from here: <https://www.policyuncertainty.com/>

### 3 Methodology

**Main event study specification** To analyse the effects of CPI releases on firm inflation perceptions and expectations, we use an event-study approach. The DMP survey records the exact date and time of survey submission, which makes this possible. Specifically, we compare the survey responses of firms in the days before versus after the latest inflation data are published. CPI inflation data are released by the ONS on a monthly basis.<sup>11</sup> There is no fixed release date, but most often it has been on a Wednesday during the second half of the month.<sup>12</sup> The DMP survey, meanwhile, collects responses from firms for a two-week period every month (usually starting on the first Friday of the month). In most months, the CPI release occurs during the second week of the survey window.<sup>13</sup> This creates an ideal natural experiment, as we can compare average responses of firms in tight windows around each release.

To operationalise this, we first create ‘event windows’ of  $\pm 2$ ,  $\pm 5$ , and  $\pm 7$  days around each CPI release. Because releases usually occur on the second Wednesday of the survey window, there is a shorter ‘post’ period in each month. This is clearly seen in Figure 3, which shows the average number of firm responses across the event window, with day 0 being the CPI release date. Day 2 is typically the last date before the survey closes (a Friday), hence there are very few observations in the subsequent days. Although this is a limitation given the nature of the release and survey calendars, we show that our main results are all robust to estimating the effects of CPI releases in two-day, five-day, and seven-day event windows.<sup>14</sup> Furthermore, as described below, we also build extended event windows across months which allow us to track the effects across longer horizons.

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<sup>11</sup>CPI data are released by the ONS alongside other inflation statistics at the same time, including PPI, RPI, and CPIH. We focus on CPI inflation because this is the measure most commonly reported in the media and targeted by the Bank of England. In Section 4.5, we also test for the response to PPI releases.

<sup>12</sup>Until March 2020, CPI data were released at 9:30am. Starting in April 2020, the data have been released at 7:00am. A release calendar of CPI inflation rates can be found here: <https://www.ons.gov.uk/releasecalendar?view=upcoming&query=CPI>

<sup>13</sup>Since January 2022, there have been only four months in which the CPI release has happened outside the DMP survey window: March 2022, March 2023, May 2023, and December 2023.

<sup>14</sup>We generally use the two-day event window as our baseline specification. One additional reason for this is that extending the event window often creates overlaps with other data releases. For example, UK GDP releases and US CPI releases commonly occur in the week prior to the UK CPI release. To the extent that these are correlated with the UK CPI releases, it may affect our pre-treatment observations.

(Figure 3)

A second observation from Figure 3 is that the number of responses varies over the event window. This is because firms are not randomly assigned to a specific date on which they should respond to the survey, but are free to submit their answers on any day during the two-week window. Days -3 and -4 in the figure refer to Saturday and Sunday, therefore we see very few observations on those days. Furthermore, the figure has two clear spikes on Days -6 and +1. These are days (usually Thursdays) on which firms are sent reminder emails to complete the survey. Unsurprisingly, we see a much higher response rate on those occasions.

In terms of the empirical analysis, these unequal response rates over the event window may create an issue if they correlate with certain firm characteristics. For example, if larger and more productive firms tend to respond following a CPI release, or indeed wait specifically for the release before responding, this may bias our results. In Figures A9 and A10 we look for such patterns across the event window. We do not find any clear trends in firm size or firm productivity across the CPI release windows. In Table 1, we test this formally in our event study framework. Specifically, we test whether there are average differences across a number of firm-level variables before versus after CPI releases. Columns 1-4 suggest there are no significant differences in productivity, assets, sales, or employment across the two-day event windows. In Column 5, we also test whether there are average differences in survey duration. The results suggest firms who respond after the CPI release do not take longer to complete the survey. Overall, the distribution of firms responding to the survey appears to be random around release dates, at least based on observable characteristics. In our empirical analysis, we provide further robustness checks for this sampling assumption by controlling for firm-level variables as well as a demanding set of fixed effects.

(Table 1)

One may still worry that because firms can respond to the survey on any day during the two-week window, they may strategically time their responses depending on the day of the CPI release and whether they plan to update their expectations.

We address this concern by exploiting the fact that on some occasions, the CPI release falls outside the survey window. Over 2022-2024, there were four such months: March 2022, March 2023, May 2023, and December 2023. We can therefore compare whether firm response patterns are, on average, similar for months with and without a CPI release. This is presented in Figure 4. The figure reveals several insights. First, it shows that for firms which responded in both CPI and non-CPI months, average response days are very highly correlated. This is inconsistent with the argument that they systematically time responses depending on the day of the release. Furthermore, only around 3% of total responses occur on CPI release days (days 6 and 13 of the survey window). Instead, responses are clustered on days 1, 7, and 14, when firms receive either the initial email invite or reminders. Around 56% of total responses are on these days. Overall, the evidence from Figure 4 suggests that the timing of when firms submit their response is generally stable, and we do not see evidence of strategic timing.

(Figure 4)

After setting up the CPI release event windows, we estimate the following specification for firm  $i$ , responding to the survey in month  $m$  on day  $j$  of the event window:

$$\begin{aligned}
Y_{i,m,j} = & \alpha_i + \alpha_m + \sum_{j=-2}^{+2} \gamma_j + X_{i,m} + \sum_{k=-2}^{+2} \lambda_k \Delta CPI Inflation_m \times 1[Day = k] + \\
& + \sum_{k=-2}^{+2} \theta_k CPI Surprise_m \times 1[Day = k] + \varepsilon_{i,m,j}
\end{aligned} \tag{1}$$

In Equation 1, the dependent variable,  $Y_{i,m,j}$ , is a measure of firm-level current CPI inflation perceptions or inflation expectations. On the right-hand side, we interact the change in headline CPI in a given month,  $\Delta CPI Inflation_m$ , with indicators for each day of the event window. We do the same for the CPI surprises,  $CPI Surprise_m$ . Figure A11 shows a time series of the changes in headline CPI inflation between 2016 and 2024. Up to 2020, these changes were relatively small, but they became much larger between 2021 and 2024. In addition, they were clearly skewed to the positive in 2021 and 2022 as inflation increased, but have been skewed to the negative in 2023-24 as inflation has started to fall. The coefficients of interest are  $\lambda_k$  and  $\theta_k$ , which trace

out the effects of CPI inflation changes and CPI surprises, respectively, before versus after the release date. In this specification, we take the day before the release (i.e.  $k = -1$ ) as the reference category. Naturally, we would expect to see no significant effect prior to the release date, with effects (if any) materialising only in the days following the release. In addition, the specification controls for three sets of fixed effects:  $\alpha_m$  are monthly fixed effects, which control for general time trends across all firms. Second,  $\alpha_i$  are firm fixed effects, which capture any time-invariant firm characteristics. This includes differences in average price growth, forecasting ability, or management practices across firms. Finally,  $\gamma_j$  are event window fixed effects, which capture common trends across event windows. These would capture, for example, if inflation expectations are systematically higher on Fridays (post-CPI release) versus Tuesdays (pre-CPI release). In our main specification, we cluster standard errors at the firm level.

In addition to this event-study analysis, it is possible to estimate a simplified specification which pools the effects on days before and those after the CPI release:

$$Y_{i,m,j} = \alpha_i + \alpha_m + \sum_{j=-2}^{+2} \gamma_j + X_{i,m} + \lambda \Delta CPI Inflation_m \times Post_j + \theta CPI Surprise_m \times Post_j + \varepsilon_{i,m,j} \quad (2)$$

This resembles a difference-in-differences specification, with a continuous treatment. The variables of interest in Equation 2 are  $\lambda$  and  $\theta$ , which capture the *average* effect of the change in CPI inflation and CPI surprise in the days post-release versus pre-release. This version of the specification makes it easier to report results in tabular form, and also to explore heterogeneities across firm and industry characteristics.

**Hourly event windows** In the DMP, we observe the exact time of day firms have submitted their responses. This allows us to zoom in on the day of the release, for example, and estimate an event study at the *hourly* frequency. Figure A12 shows the distribution of firm responses over 2022-2024 by hour on CPI release days only. Responses are mostly concentrated during workday hours, with two peaks around 9-11am and 2-4pm. Furthermore, note that there are almost no responses prior to 7am, justifying our treatment of the release day in the ‘post’ period.

**Extended event windows** One limitation of the empirical design, as discussed above, is that there are typically only three days of observations following a data release. This makes it difficult to track the effects over a longer horizon. We address this by creating an alternative event window structure which pools together survey dates across calendar months, keeping calendar days outside the survey window as missing. This format is likewise not perfect, as it leaves a large gap between days. It also means that there are overlaps in days, as the 'post' period in one month will also contain days which are the 'pre' period of the following month. We are careful, however, to only include one CPI release within a given event window. The advantage of this specification is that it allows us to test whether the effects of CPI releases persist over time, or whether they are only present in the immediate aftermath of a data release.

**Daily panel specification** Finally, as a robustness exercise, we also construct an alternative dataset by first collapsing firm-level observations at the daily level. This helps address the sizable differences in the number of firm responses across event window days (Figure 3). We then estimate a similar specification as in Equation 2, and also weighting the daily observations by the square root of the number of responses on that date.

## 4 Results

### 4.1 CPI releases and current CPI inflation perceptions

We first present the main results analysing the effects of CPI inflation changes and CPI surprises on current CPI inflation perceptions. Figure 5, Panel A shows the effects of CPI inflation changes based on Equation 1, estimated over a  $\pm 2$  day event window. The event study highlights three important results. First, there is no significant effect of a change in CPI inflation *before* the release date, i.e. in period  $t - 2$ . At the same time, there is an immediate and highly statistically significant effect from period  $t$  (the release date), which is persistent in subsequent days of the release window. In other words, firms are indeed paying attention to news about inflation, and they update their perceptions from the day of the release. However, the third result is that this updating is not full. The coefficient on date  $t$  suggests that a one percentage

point increase in headline CPI inflation is associated with a 0.6-0.7 percentage point increase in CPI inflation perceptions. Thus, although many firms quickly learn about the new 'state of the world' post-release, the learning process is not immediate for all firms. In Panel B, we report the results on CPI surprises. The coefficients are weakly negative and insignificant for all days in the release window, suggesting firm inflation perceptions are not responding to the unexpected component of inflation. The null result on CPI surprises is what we would expect here, as the dependent variable is the perception of current CPI inflation rather than inflation expectations.

(Figure 5)

Table 2 presents these results in tabular form using the specification in Equation 2. To be clear, this regression essentially pools the pre- and post-release coefficients and compares their average difference. The three columns in the table distinguish between  $\pm 2$ ,  $\pm 5$ , and  $\pm 7$  day event windows. In all columns, the results are highly significant and similar in magnitude: they suggest about a 70% pass-through of a CPI inflation change to CPI inflation perceptions in the days following a release. Consistent with the event studies, the effects of CPI surprises are insignificant in all three specifications.<sup>15</sup>

(Table 2)

**Hourly event window** In Figure 6, we present the results of the hourly event window specification on the effects of CPI inflation changes on current CPI inflation perceptions. The horizontal axis shows hours around the 7am releases.<sup>16</sup> We estimate the results over a  $\pm 2$  day event window, similar to the daily event studies presented above. The omitted category is 3-4pm on the day before the release (i.e. hour t-16), as this is an hour with a high number of observations.

(Figure 6)

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<sup>15</sup>One may worry that because of the relatively short sample (since May 2022), these results may be influenced by a few single months of data. In Figure A13, Panel A we perform a 'leave-one-out' exercise, estimating the main specification by iteratively dropping months from the sample. The coefficients are very stable around the full-sample estimate, suggesting they are not driven by any particular month. Still, we acknowledge that due to when the question was introduced in the survey, we are not able to assess the responsiveness of perceptions in the earlier, low-inflation period.

<sup>16</sup>The ONS has released CPI data at 7:00am since April 2020.

Strikingly, we find that only a few hours after the release, firms are responding to the new CPI data when reporting their inflation perceptions. All point estimates in the post-release hours are positive, indicating that firms are updating their perceptions in line with changes in CPI inflation. The horizontal red line and shaded area denote the pooled coefficient estimate and 90% confidence interval of the effect of CPI inflation changes on current CPI inflation perceptions (the same as Column 1, Table 2). Meanwhile, in the hours before the release, the coefficients are close to zero, on average, consistent with no significant pre-trends or anticipation effects in our estimates. Overall, we conclude that since 2022, firms have been highly attentive to CPI releases, updating their inflation perceptions within days and even hours of the latest data outturns.<sup>17</sup> In the next sections, we analyse how their inflation expectations are influenced by changes in inflation rates.

## 4.2 CPI releases and expected own-price growth

After documenting that firms are attentive to CPI releases, in this section we analyse whether changes in headline inflation rates or CPI surprises have meaningful effects on their year-ahead own-price growth expectations. We begin by estimating the event study specification (Equation 1), but with expected own-price growth as the dependent variable. This is the average price growth firms expect for the goods and services they provide over the next 12 months. In essence, the specification compares the average expected price growth in the days before versus after a data release. The main results on CPI inflation changes and CPI surprises are presented in Figure 7.

(Figure 7)

In Panel A, we find no significant effect of CPI inflation changes on own-price expectations prior to the release. However, following the release, the coefficients grow in magnitude and by day  $t + 2$ , the coefficient is statistically significant as well. The coefficient on second day after the release suggests that a one percentage point

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<sup>17</sup>To analyse how changes in headline CPI inflation affect CPI inflation perceptions over a longer horizon, we use the extended event window specification, as outlined in Section 3. This approach combines survey data across multiple months to form the event windows. We then re-estimate the specification in Equation 1, and present the results in Figure A14. The figure shows that the effects are very persistent and highly significant over the survey days post-release. It should be noted that the post-release period does *not* overlap with any future CPI releases. Overall, the results in Figure A14 confirm that firms learn about the new inflation rate over time, and update their current inflation perceptions before the following CPI release.

increase in CPI inflation is associated with around a 0.6 percentage point increase in year-ahead expected own-price growth, relative to the day before the release. As we show in the regression table below, the average effect over the three days post-release is around 0.3 percentage points.

Panel B presents the results on the responsiveness of own-price expectations to CPI surprises. In contrast to Panel A, we find no evidence that firms are responding to the unexpected component of inflation outturns. The coefficients are roughly the same magnitude pre- vs. post-release, and all highly insignificant. Although the larger confidence intervals are likely a result of the smaller variation in CPI surprises relative to changes in headline rates, we still note that the magnitude of the coefficients is also smaller. Overall, this figure highlights a key difference in how firms respond to inflation data: although they are attentive to the latest releases, their expectations are driven by changes in headline inflation rates, rather than surprises.

We also present these results in table format by estimating Equation 2. These results are shown in Table 3. These regressions control for a demanding set of firm, month, and release-window fixed effects. We also include firm controls for realised annual own-price growth and annual sales growth. Panel A covers the 2022-2024 period. Based on the specification with a  $\pm 2$  day event window (Column 1), a one percentage point increase in CPI inflation is associated with a 0.3 percentage point increase in expected own-price growth in the days following the release date.<sup>18</sup> Columns 2 and 3 show that the results are robust to expanding the estimation window to  $\pm 5$  and  $\pm 7$  days around the CPI release, respectively. The results become more significant, likely due to the larger sample size, but the coefficient estimates have roughly the same magnitude. Thus, our finding of around a 30% pass-through of CPI changes to expectations is not sensitive to a smaller or larger event window.<sup>19</sup> As we showed in the event studies, the effects of CPI surprises are insignificant across

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<sup>18</sup>In Figure A13, Panel B we perform a 'leave-one-out' exercise over this period, dropping months iteratively from the estimation sample. The coefficients are broadly stable; the main effect of CPI inflation changes declines to around 0.2 when November 2023 is dropped. In that month, CPI inflation decreased by 2.1 percentage points from 6.7% to 4.6%.

<sup>19</sup>The finding of a significant but incomplete pass-through of CPI inflation changes to own-price expectations is similar to existing literature which documents low price pass-through to cost and exchange rate shocks (e.g. Godl-Hanisch and Menkhoff, 2024; Gopinath et al., 2010; Gopinath and Itskhoki, 2010; Dedola et al., 2021). It is consistent with the presence of strategic complementarities as well as nominal rigidities in price-setting. Furthermore, our finding that this pass-through is stronger in the high-inflation years can also be explained in this framework: when inflation is high, firms adjust prices more frequently on average, and coordinate failures across firms are easier to overcome.

all three specifications.

(Table 3)

In contrast to the data on CPI inflation perceptions, the DMP collects data on own-price expectations from the end of 2016. In Panel B of Table 3 we re-estimate our main specification over the earlier period, 2017-2021. Over this period, price expectations are not responsive to CPI inflation changes or CPI surprises.<sup>20</sup> This indicates that in a high-inflation environment, firm expectations become more sensitive to data releases. This is consistent with the theoretical predictions in [Maćkowiak and Wiederholt \(2009\)](#), who argue that firms should pay more attention and be more responsive to aggregate shocks when their volatility is higher. In Section 4.3 we provide evidence consistent with an (in)attention channel, using an index of inflation media coverage in the UK.<sup>21</sup>

**Hourly event window** In Figure 8, we present the results on changes in CPI inflation and own-price expectations using the hourly event window specification. As in the daily event studies, we focus on the day of the CPI release, and two days before/after the release. As the figure shows, the results on own-price expectations are noisier than those for inflation perceptions. Nevertheless, the vast majority of coefficients in the period after the release are positive, indicating that firms are increasing own-price expectations in response to positive changes in CPI inflation. The horizontal dashed line in the post-release period indicates that the average estimated impact is around 0.31 over this period, and statistically significant (this is the same estimate as Column 1 from Table 3, Panel A).<sup>22</sup>

(Figure 8)

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<sup>20</sup>Although our results are driven by the recent high-inflation period, we still find significant results over the full sample, 2017-2024 (Table A1)

<sup>21</sup>In Figure A15, we estimate the response of own-price expectations to CPI inflation changes and surprises by year over 2017-2024. The results qualitatively align with inflation trends. The most significant effect is in 2022, when UK CPI inflation peaked. In 2023 and 2024 the responsiveness is still positive but has diminished somewhat. We also find a positive estimate for 2017. CPI inflation increased in the UK in 2017 following the Brexit referendum. However, this estimate is imprecisely estimated, mostly likely due to the smaller survey sample at the time.

<sup>22</sup>In Figure A16 we present effects of CPI inflation changes from the extended window specification across survey months. The results are not precisely estimated in some of the days post-release, but they remain positive and still within the same range as the initial effect, suggesting that CPI changes continue to have an effect beyond the first few days. In Table A2, we show that the main results are also robust in a specification where responses are collapsed at the daily level.

**Pre-announcement effects** Our main results from Table 3 suggest firms pass through 30% of changes in CPI inflation to own-price expectations. One hypothesis to explain this significant, but limited, pass-through is that firms have already incorporated a large portion of the change into their expectations before the release. After all, a large portion of these changes to headline rates are ‘expected’, at least by professional forecasts. We test this hypothesis by removing the month fixed effects from our main specification, which allows us to analyse the impact of CPI inflation changes both pre- and post-release.<sup>23</sup> To control for the serial correlation in CPI inflation changes, we add four lags of past changes in this specification.

Table A3 presents the main result. Columns 1-3 show the results over 2022-2024 for varying event windows. In all three cases, we find no significant response to CPI changes pre-release, but a significant coefficient post-release. Thus, in a high-inflation environment it does not seem that firms are incorporating inflation changes into their expectations beforehand, but rather waiting until after the release. In Column 4, we estimate the same specification over the period 2017-2021, when inflation was on average lower and more stable. In this period, we find a significant response pre-announcement, but no additional effect post-announcement. This highlights an important distinction in how firms update their expectations in times of low vs. high inflation.

**Controlling for expected cost growth** In the standard New Keynesian model with constant returns to scale and iso-elastic demand, prices change one-for-one with (expected) nominal marginal costs, and marginal costs change one-for-one with average costs. Our results so far suggest an additional factor – changes in aggregate inflation – which affect price expectations. To more formally test for the presence of this additional channel, in Table A4 we add additional controls for expected unit cost growth and expected wage growth.<sup>24</sup> Both of these enter as significant controls (Column 2-3). When included together (Column 4), expected cost growth is highly significant, but we still find a positive and significant effect of CPI inflation changes with roughly the same magnitude. These results suggest the ‘pure cost’ channel in the standard

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<sup>23</sup>We thank one of the anonymous referees for suggesting this exercise.

<sup>24</sup>The questions on unit cost growth have not been asked regularly over 2022-2024. Therefore, to have a large enough sample for the regressions, we create firm-year average expected cost growth and use that as a control. We have more observations on wage growth expectations, and therefore we use firm-quarterly averages.

NK model is likely an incomplete characterisation of how firms set prices, at least in a high-inflation environment. It is consistent, for example, with the presence of ‘strategic complementarities’ in price-setting, where the prices of other firms matter, conditional on own cost developments (see, e.g. [Woodford, 2003](#)).

Finally, we note that the impact of CPI releases on own-price expectations is unlikely to be driven by a priming effect. This would be the case if the question on expected own-price growth was asked following the question on CPI inflation perceptions, making firms conscious of the latest data releases. However, the DMP has a rotating panel structure with three separate panels. The questions on own-prices and CPI perceptions/expectations are located in separate panels, so firms are not already primed to think about CPI when answering questions about their own prices.

Overall, this section shows that firm expected own-price growth responds robustly to changes in CPI inflation, but not to CPI surprises. This responsiveness is statistically significant when inflation is high (over 2022-2024), but not in the years 2017-2021. It is also present even after controlling for cost growth expectations. In the next section, we rationalise these findings by analysing the interaction of firm responsiveness with inflation media coverage. In Section 4.4 we also consider the impact of CPI releases on firm CPI inflation expectations, both in the near-term and over the medium-term.

### 4.3 CPI releases and inflation media coverage

One reason why firms may be more responsive when inflation is high is because media coverage of inflation is elevated. Multiple papers have documented the importance of media coverage in driving and/or amplifying economic fluctuations (e.g. [Chahrour et al., 2021](#); [Besley et al., 2024](#)). Similarly, businesses likely obtain information about CPI inflation from newspapers (and related media outlets) rather than following the release of official statistics on the ONS website. As the coverage of inflation has increased, firms become more likely to observe the latest release and adjust their own-price expectations.<sup>25</sup>

To test this hypothesis more formally, we construct a measure of ‘inflation media chatter’ using data from all UK newspapers gathered from Access World News’

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<sup>25</sup>This hypothesis is related to work by [Link et al. \(2024\)](#), who document that higher attention to inflation is positively associated with higher consumption of inflation news in the media, and higher attention to inflation is also correlated with a higher likelihood of adjusting inflation expectations.

NewsBank service. In particular, we obtain *daily* counts of articles which mention one of the following three keywords: (1) 'inflation', (2) 'CPI', or (3) 'Consumer Price Index' over the period 2010-2024. We then scale these by the total number of articles published on each day, and finally normalise the index to have an average value of 100 over the 2010-2019 period. Figure 9 presents the evolution of inflation media chatter, along with annual UK CPI inflation.<sup>26</sup>

(Figure 9)

As the figure shows, the two series are highly correlated. Specifically, since the end of 2021, CPI inflation started to increase sharply, and inflation media chatter also increased. Although the two series are shown on separate vertical axes, the *magnitude* of the increases are strikingly similar. CPI inflation increased five-sixfold between 2019 and the peak of 11.1% in October 2022. Inflation media chatter also increased by around the same magnitude from its average level over 2010-2019.

Since our inflation media index is measured at the daily frequency, we can test whether months with higher inflation coverage in the days *just before the release* are associated with a higher responsiveness of firm own-price expectations. We create three versions of the index, capturing the average inflation coverage in the three-, five-, and seven-day periods prior to a CPI release. We also standardise these to have 0 mean and unit standard deviation. We interact these measures with the changes in CPI inflation and CPI surprises based on our main specification in Equation 2. The results are presented in Table 4 for the full sample period, 2017-2024.

(Table 4)

Across Columns 1-3, we find a significant interaction between changes in CPI inflation and the inflation media chatter in the preceding days. Column 1, for example, suggests that a one standard deviation increase in media coverage increases the effect on own-price expectations by 0.4 percentage points. This result is robust to five-day and seven-day specifications for media coverage (Columns 2-3). At the same time, the interactions of CPI surprises with inflation media coverage are small in magnitude and all highly insignificant. Therefore, even when inflation media coverage

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<sup>26</sup>We are not the first to study inflation coverage in the news. For example, [Briand et al. \(2024\)](#) use data from Google Trends and the Wall Street Journal to construct indices of attention to inflation.

is elevated, this does not appear to make firms more responsive to the ‘unexpected’ component of the data release.<sup>27</sup> Overall, the results from this table suggest that news media is likely an important source of information about aggregate inflation, and periods of elevated coverage are an important mechanism to explain firm expectation formation.

**Using lagged inflation chatter** In the analysis above, we use the amount of inflation chatter in the media *prior* to each release in the empirical specifications. One implication is that this doesn’t take into account by how much inflation coverage changes after the release. One justification for our baseline approach is to avoid issues with timing: we want to analyse how changes in expectations interact with the amount of news stories which have already been published. As an alternative exercise, in Table A5 we add the one-day lagged inflation media chatter as the main interaction. In this way, we are also allowing for the changes in inflation coverage post-release as well. The results are similar: we find positive and significant interaction with CPI inflation changes, but no significant interaction with CPI surprises.

#### 4.4 CPI releases and CPI inflation expectations

In addition to the effects on expectations for own-price growth, firms may interpret changes in CPI inflation as signals about the future persistence of aggregate inflation rates. As a benchmark, a simple regression of CPI on its 12th lag over the period 2017-2024 gives a persistence of 0.48. Therefore, firms may revise their expectations about CPI inflation in the near term (one year in the future) or medium term (three years in the future). As discussed in Section 2, DMP panel members have been asked about one-year and three-year CPI inflation expectations since May 2022, which allows us to test this hypothesis within our estimation framework. Due to when these questions were introduced in the survey, the results should be interpreted as the responsiveness of CPI inflation expectations in a high-inflation environment.

(Table 5)

Columns 1 and 2 in Table 5 show the effects of changes in CPI inflation and CPI surprises on one-year ahead CPI inflation expectations (for  $\pm 2$  and  $\pm 7$  day event

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<sup>27</sup>In Figure A17, we show the main results as an event study, by showing the effects of CPI inflation changes in months with above median (Panel A) and below median (Panel B) inflation media chatter.

windows, respectively). These effects of CPI inflation changes are positive and statistically significant in both columns. The coefficient in Column 1 suggests a one percentage point increase in CPI inflation increases one-year CPI inflation expectations by around 0.3 percentage points.<sup>28</sup> Importantly, this pass-through is very similar in magnitude to the effects on expected own-price growth in Table 3. Thus, the increase in firms' own-price expectations can be interpreted as firms attempting to maintain their relative prices constant, given they also expect higher aggregate inflation.<sup>29</sup> Meanwhile, as with own-price expectations, we find no significant effect of CPI surprises on firm CPI inflation expectations.

In Columns 3 and 4 of Table 5 we analyse the impact on medium-term (three-year ahead) CPI expectations. We do not find a significant effect on these expectations from changes in CPI inflation or CPI surprises.<sup>30</sup> This is also visually plausible, given that three-year CPI expectations have been much more stable over the past three years (Panel C of Figure 2). It is also a reassuring finding, as lower sensitivity to data releases likely signals more well-anchored expectations (see [Anderson and Maule, 2014](#)). Overall, this section provides additional evidence that firms adjust their near-term CPI inflation expectations by roughly the same magnitude as their own-price expectations in response to CPI inflation changes.<sup>31</sup> We interpret this as consistent with a desire by firms to keep relative prices stable.

## 4.5 Additional results and robustness checks

In this section, we provide several additional results on the impact of CPI releases, as well as several robustness checks.

**Non-linearity of effects** The results so far assume firms respond in the same (linear) way to positive and negative changes in CPI inflation and CPI surprises. However, this does not necessarily need to be the case. Increases in inflation may be

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<sup>28</sup>Panel A of Figure A18 shows the daily event study of CPI inflation changes on one-year CPI inflation expectations.

<sup>29</sup>Alternatively, it could be due to firms adjusting their own-price expectation in order to catch up to recent aggregate inflation dynamics.

<sup>30</sup>Panel B of Figure A18 shows the daily event study of CPI inflation changes on three-year CPI inflation expectations.

<sup>31</sup>In the survey, we have additional data on several other measures of expectations, with varying sample sizes. These include expectations of sales growth, cost growth, wage growth, and expected borrowing costs. The effects of CPI releases on these variables are mostly insignificant with the existing data (Table A6). The effects on expected wage growth are negative, suggesting firms are not interpreting positive CPI inflation changes as signals about higher future wage growth.

more salient, lead to more media coverage, and therefore be associated with a faster pass-through to firm perceptions or expectations. We test this hypothesis in Table A7, which estimates separate coefficients for positive/negative CPI inflation changes and positive/negative CPI surprises. Columns 1-2 shows the results for current CPI inflation perceptions. These react in a highly significant way to both positive and negative changes in CPI inflation, suggesting little evidence of a non-linearity. In contrast, Columns 3-4 shows that the impact on own-price expectations are only significant for positive CPI inflation changes. This effects on CPI inflation decreases are much smaller in magnitude and not significantly different from zero. This finding is also consistent with aggregate trends in own-price expectations, which increased quickly as UK CPI inflation was rising, but have only decreased slowly since peaking at the end of 2022 (see Figure 1). Across all specifications, we find no significant effect of CPI surprises, both positive and negative.

**Responsiveness to PPI changes** One concern may be that we are putting too much focus on changes in *CPI* inflation in the paper, whereas changes in other inflation rates may be more informative for firms. For example, producer price inflation (PPI) may be a more important guide for firms, if it informs them about average input and output price trends of *producers* in particular. We offer several responses here. First, based on direct questions asked to DMP firms in May-July 2023, we have evidence that CPI inflation is indeed an important factor in pricing decisions for around 60% of firms (Figure A5). This justifies our focus in particular on CPI. Furthermore, it is important to note that PPI inflation rates are based on trends for UK manufacturers only, and therefore may not be representative of trends across the whole economy. Services PPI are also published by the ONS, but only at the quarterly frequency, and generally based on a much smaller sample of firms. Nevertheless, we can test for the effects of changes in PPI inflation on own-price expectations of firms, and we report these results in Table A8. CPI and PPI data are generally released on the same day of the month, allowing us to test for these effects in the same specification. Changes in Input PPI (Column 2) and changes in Output PPI inflation (Column 3) have no effect on own-price expectations. In Column 4, we regress own-price expectations on changes in CPI and both PPI indices. Only the changes in headline CPI inflation remain a significant determinant of own-price expectations, with roughly the same

magnitude. Finally, in Column 5 we test for the response of own-price expectations among manufacturing firms only, but we still do not find a significant response to PPI inflation changes among these firms.<sup>32</sup>

**Additional heterogeneity results** In Table A10, we present several additional results on the impact of CPI inflation changes on own-price expectations. In particular, we analyse whether the results differ by sector, firm size, and by the importance of CPI inflation and competitor price growth in firm pricing decisions (a potential proxy for strategic complementarities). Column 1 in the table reproduces the main result across all firms for ease of comparison. In Column 2, we see that the effects are similar in magnitude for both goods producers and services providers, although less precisely estimated. Therefore, the results are not driven only by one sector of the sample.<sup>33</sup> In Column 3, we test for the effects by firm size. Interestingly, the results here are only statistically significant for smaller firms.

Firms in the DMP were asked between May to July 2023 about the importance of CPI inflation and competitors' prices for their own pricing decisions. Around 17% of firms reported CPI inflation to be the most important factor (Figure A5), and 30% reported competitors prices to be the most important (Figure A19). In order to analyse the differential effect of CPI releases depending on the importance of CPI and competitor prices, we create *industry-level* indicators based on the industries in which the respective factors were most important. Specifically, we create indicator variables for industries where more than 20% of businesses reported CPI inflation to be the most important factor, and 25% of businesses reported the same for competitors prices. This is based on the industrial breakdowns presented in Figure A20.

Column 4 of Table A10 shows that the effects of CPI inflation changes are larger and statistically significant only for sectors which cite CPI inflation as most important. This is further evidence consistent with a desire to maintain relative prices stable following changes in aggregate inflation. Column 5 presents the corresponding result for competitors prices. Again, the effects are larger and statistically significant only

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<sup>32</sup>Alternatively, firms may not be responding to PPI changes if these have already been incorporated into their price plans pre-release. In Table A9 we test for such pre-announcement effects by removing month fixed effects from the specification. We still find no significant effects of PPI changes on firm own-price expectations, while the effects of CPI inflation changes post-release remain robust.

<sup>33</sup>Separately, in Table A11 we show that the response of expected own-price growth to CPI inflation changes is present in sectors with above median and below median labour cost shares.

for sectors where more than 25% of firms consider competitor prices as the most important factor. The effect for firms which view competitors prices as most important may suggest that in more competitive markets or markets with higher strategic complementarities, firms are more attentive to aggregate inflation trends when setting their own prices. This result is consistent with recent findings in [Afrouzi \(2023\)](#) on how competition affects firm expectations.

**Impact on inflation uncertainty and skewness** In addition to the effects on average expected own-price growth, the DMP allows us to also test for the effects of CPI inflation changes on higher moments of expectations, such as inflation uncertainty and skewness *at the firm level*. These are calculated as the second and third moments, respectively, of expectations based on the five-bin distributions reported by firms. Figure [A21](#) shows the evolution of these series over the period 2017-2024. Both series are normalised to their average levels in 2019 for ease of comparison. Inflation uncertainty increased sharply around the onset of the pandemic in 2020, and reached a peak around the end of 2022, when it was around 60% above pre-pandemic levels. Meanwhile, inflation skewness decreased slightly in the start of 2020, as firms put higher weights on lower price growth in the initial months of the pandemic. However, expectations became positively skewed in 2021 and also reached a peak near the end of 2022. In 2024, both series have declined significantly, but inflation uncertainty remains above pre-pandemic levels.

In Table [A12](#), we test for the effect of CPI inflation changes on inflation uncertainty and skewness. We also add an interaction with the absolute value of the inflation change, to test whether the effects rise more or less than proportionately with the size of the outturn. For example, standard Bayesian learning about first moments would predict a decrease in uncertainty following the data release. In Columns 1-2, we do indeed find negative coefficients on inflation uncertainty, including the interaction with the size of the change. However, these are not precisely estimated. On inflation skewness, we find that small CPI inflation changes make the expected price growth distribution more negatively skewed at the firm level. Larger inflation changes counteract this effect, at least to some extent (Column 4).

**Additional controls** So far, our main specification for own-price expectations controls for firm, event window, and month fixed effects, as well as annual own-price and

sales growth. This is already a fairly demanding specification, but we can add further controls at the daily and firm level to the main specification. In Table A13, we test the robustness of our main results on own-price expectations to the inclusion of both firm-level variables, as well as stock market data, exchange rates, and daily economic policy uncertainty. In Column 3, we see that firm-level inflation uncertainty (calculated as the standard deviation of expected price growth scenarios) and expected sales growth are both positively related to expected price growth, while sales uncertainty is negatively correlated. However, the effects of CPI inflation changes (shown in the first row) remain robust to these additional firm-level covariates. Likewise, in Column 4, we show that the main result is also robust to the inclusion of economic policy uncertainty, stock market changes, stock market volatility, and changes in the US/GBP exchange rate.

Our main specification uses the change in expected own-price growth in narrow windows around CPI inflation releases to identify the effects of these announcements. In Table A14, we also exploit the panel dimension of the survey. In Column 2, we add lagged expected own-price growth (from three months ago, the last time firms were asked the same question). The effect of CPI inflation changes becomes smaller, but remains highly significant. In Column 3, we instead use as the dependent variable the *change* in expected own-price growth at the firm level, relative to the last time the firm answered the question. The effects of CPI inflation changes are again robust, with a slightly larger estimated magnitude. However, using lagged expectations significantly shrinks our estimation sample (e.g. comparing Columns 1 and 2), and therefore we do not use past expectations in our main specification.

**Further test of identification assumption** A key assumption in our empirical approach is that firms which respond before and after the CPI releases are not systematically different. We showed already in Table 1 that there is no average difference across a number of observables. Furthermore, in Figure 4 we showed that firm response patterns are very stable in months with and without a CPI release during the survey window. We present a further exercise here, by dropping all firms which have responded both before and after a CPI release in different months. Over 2022-2024, this corresponds to 30% of the sample. The results from this exercise are presented in Table A15. Column 1 presents the full sample, and in Column 2 we drop all firms

which have responded both before and after a release. Dropping these firms does not affect the main result. Indeed, the point estimate increases and remains significant at 1%. Thus, we conclude that our results are likely not driven by firms endogenously choosing to respond on different sides of the CPI release in different months.

**Huber robust regressions:** Finally, Columns 1-3 of Table [A16](#) show that the main results of CPI releases on current CPI inflation perceptions are robust to estimating Huber robust regressions. These regressions downplay the importance of outliers and influential observations. Columns 4-6 show that the main results on expected own-price growth are also robust to estimating Huber regressions.

## 5 Conclusion

This paper uses high-frequency firm-level data from the UK to analyse the effects of CPI data releases on firms' inflation perceptions and expectations. Firms pay close attention to changes in inflation rates, and they update their current CPI inflation perceptions quickly in the days and even *hours* following data releases. More importantly, firms adjust their *own-price* expectations in response to changes in headline inflation rates, but not to surprises relative to professional forecasts. This highlights an important difference between "Wall Street", where financial markets respond to inflation surprises, and "Main Street", where firms respond to inflation headlines. To rationalise these findings, we first create an index of inflation media coverage in the UK, which is highly correlated with aggregate CPI inflation trends. We show that firm own-price expectations are particularly responsive when there is more news about inflation in the media. Firms also increase their near-term CPI inflation expectations in response to positive CPI inflation changes. Together with the results on own-price expectations, this indicates a desire to keep relative prices stable. Medium-term CPI inflation expectations are not responsive to CPI inflation changes or CPI surprises, indicating they have been more firmly anchored, including over the recent high-inflation episode.

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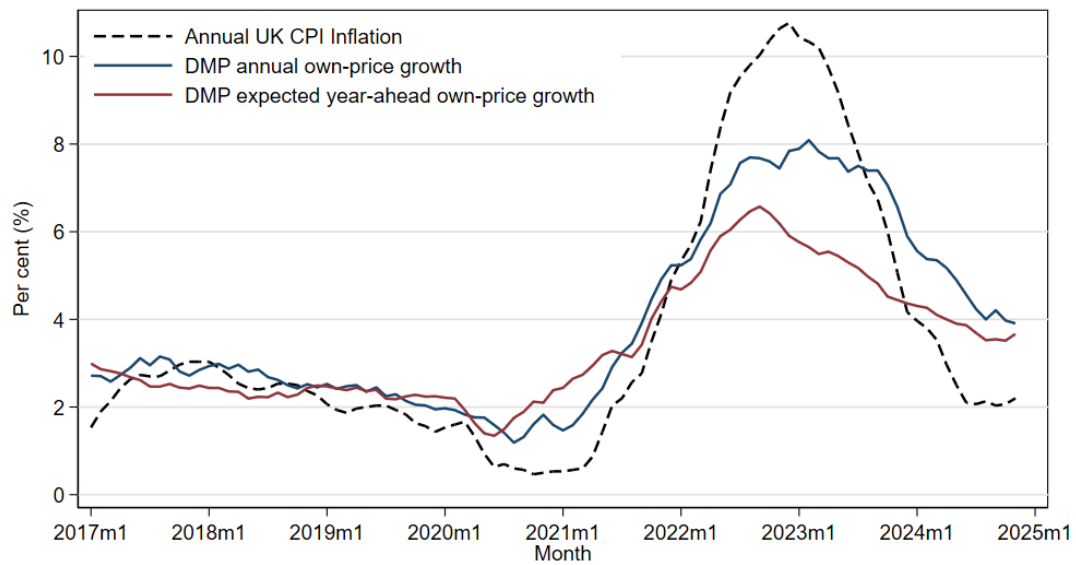
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## 6 Figures

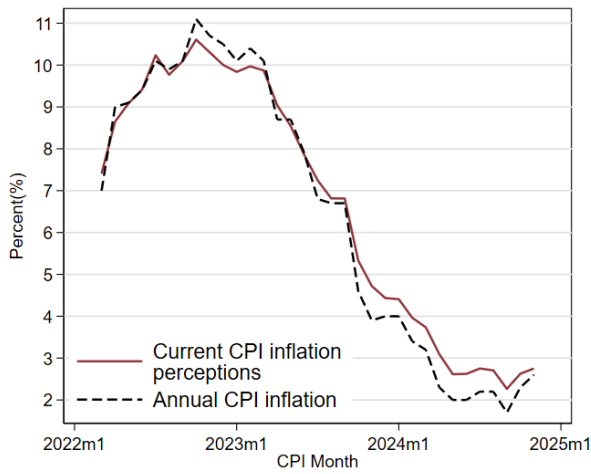
Figure 1: Firm annual price growth, expected price growth, and annual CPI inflation



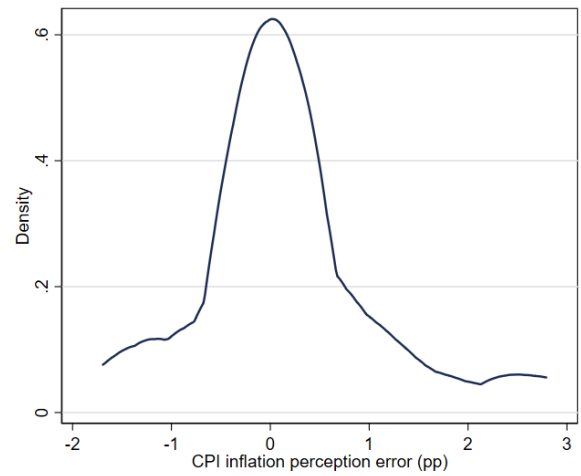
**Notes:** The data on annual own-price growth and expected year-ahead own-price growth are based on data from the Decision Maker Panel. The data on annual CPI inflation is taken from the Office for National Statistics. The series are three-month moving averages.

Figure 2: Current CPI inflation perceptions and CPI inflation expectations

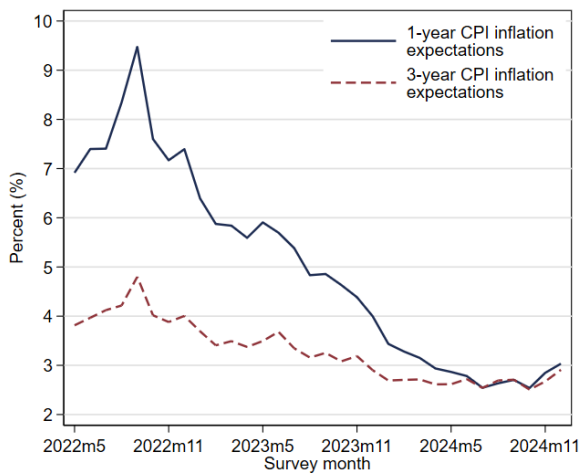
Panel A: CPI inflation perceptions



Panel B: CPI inflation perception errors

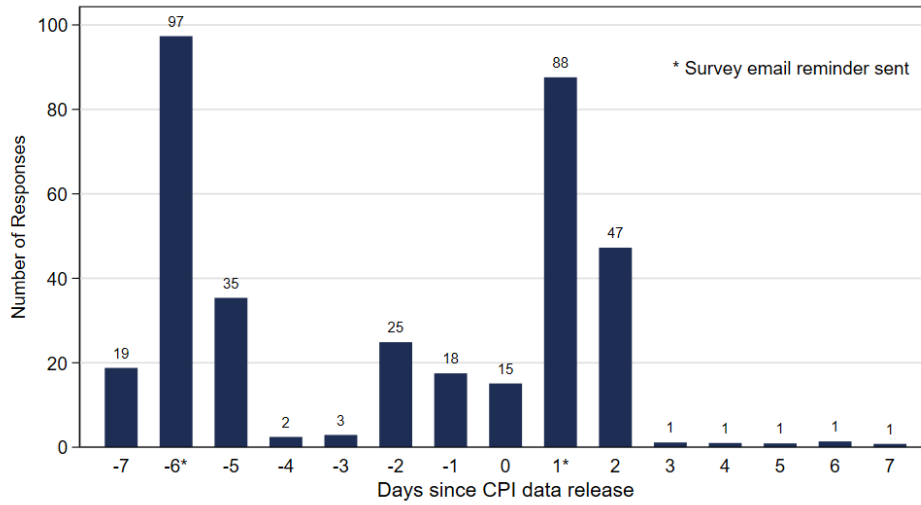


Panel C: CPI inflation expectations



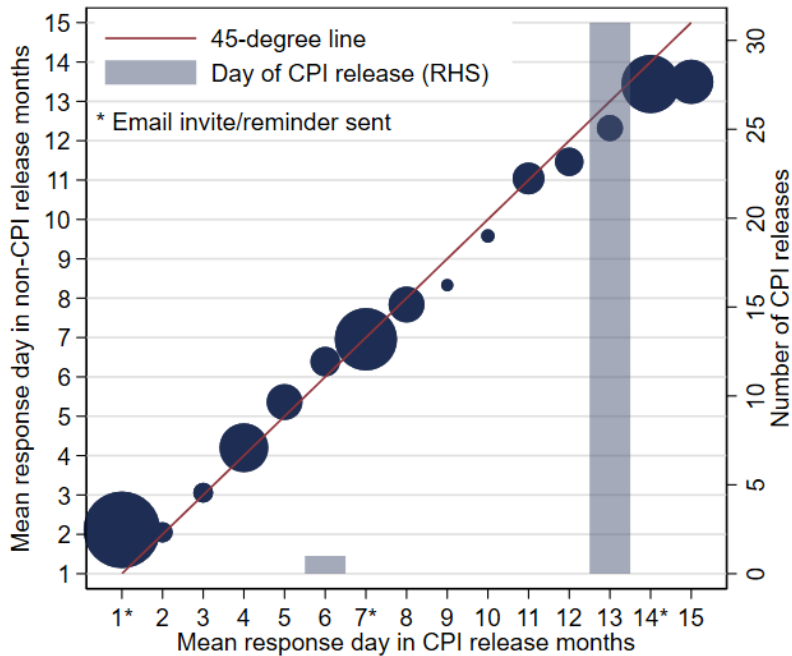
**Notes:** This figure shows the evolution of CPI inflation perceptions (Panel A) and the distribution of CPI inflation perception errors (Panel B). Perception errors are calculated as the difference between reported CPI inflation perceptions and actual CPI inflation on the day the response is submitted. Panel C shows the evolution CPI inflation expectations among firms in the DMP. In Panel A, the horizontal axis is the CPI month, rather than the survey month, to reflect the fact that CPI releases often happen during the survey window.

Figure 3: Average number of survey responses around CPI release dates (2022-2024)



**Notes:** This figure shows the average number of survey responses for the question on expected own-price growth around CPI release dates (indicated by 0 on the horizontal axis) in the DMP. These data are based on the period 2022-2024.

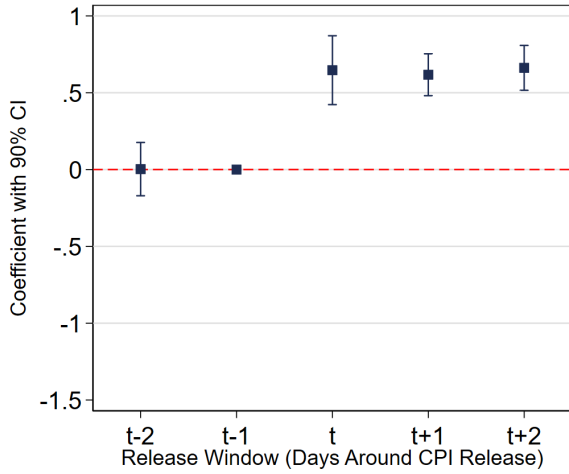
Figure 4: Average response patterns in months with and without a CPI release (2022-2024)



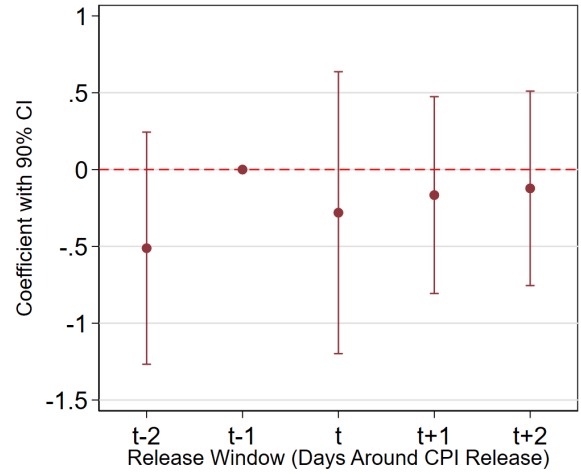
**Notes:** This figure shows the average days of response to the survey for months with a CPI release during the survey window (x-axis) and months without a CPI release (y-axis). Over 2022-2024, there were four months without a release: March 2022, March 2023, May 2023, December 2023. The size of the dots corresponds to the number of responses on each day. Email invite/reminders are sent on days 1,7,14.

Figure 5: Impact of CPI inflation changes and CPI surprises on current CPI inflation perceptions

Panel A: CPI Inflation Changes

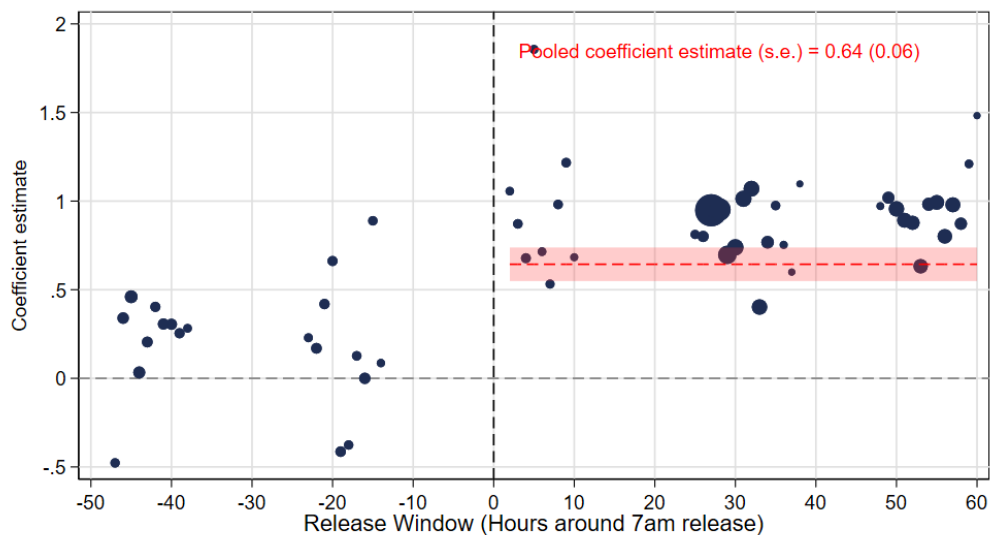


Panel B: CPI Surprises



**Notes:** This figure plots the impact of CPI inflation changes (Panel A) and CPI surprises (Panel B) on current CPI inflation perceptions based on the methodology outlined in Section 3. The coefficients in Panels A and B are estimated in the same regression. The omitted category is the day before the CPI release. 90% confidence intervals are reported around the point estimates.

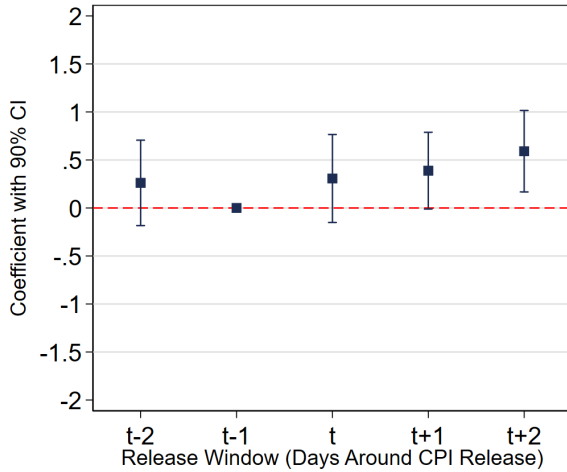
Figure 6: Impact of CPI inflation changes on current CPI inflation perceptions: Hourly window specification



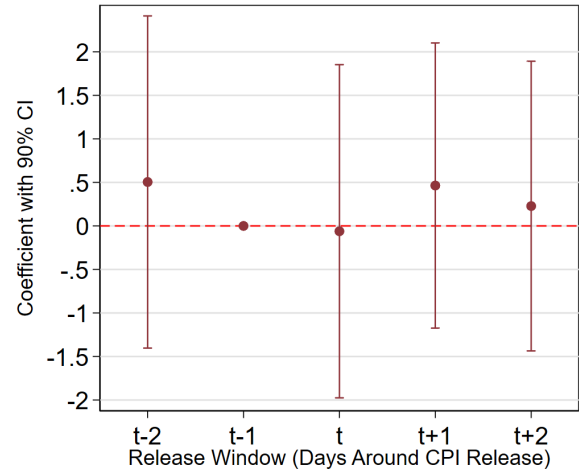
**Notes:** This figure plots coefficient estimates of the impact of CPI inflation changes on current CPI inflation perceptions based on the methodology outlined in Section 3, but applied to the hourly frequency. The omitted category is 3-4pm on the day before the CPI release (t-16). Each coefficient value is scaled by the average number of observations in the corresponding hour in the sample. The red horizontal line in the post-CPI release hours is the pooled coefficient estimate of the change in CPI inflation on CPI inflation perceptions. The shaded area denotes the 90% confidence interval. Months in which the CPI release is outside the survey window are dropped - March 2022, March 2023, May 2023, December 2023. Hours with fewer than 20 observations on average are not reported in the figure.

Figure 7: Impact of CPI inflation changes and CPI surprises on expected own-price growth (2022-2024)

Panel A: CPI Inflation Changes

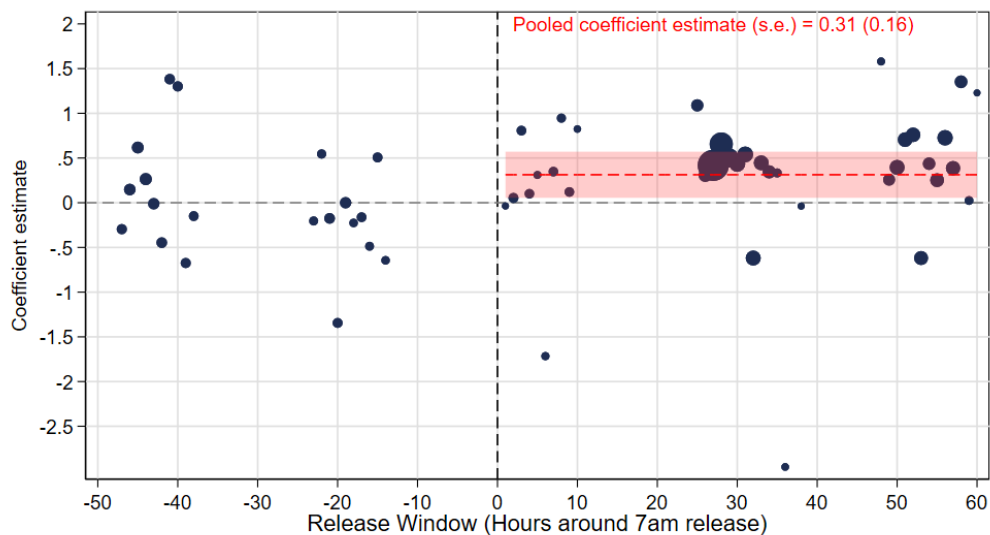


Panel B: CPI Surprises



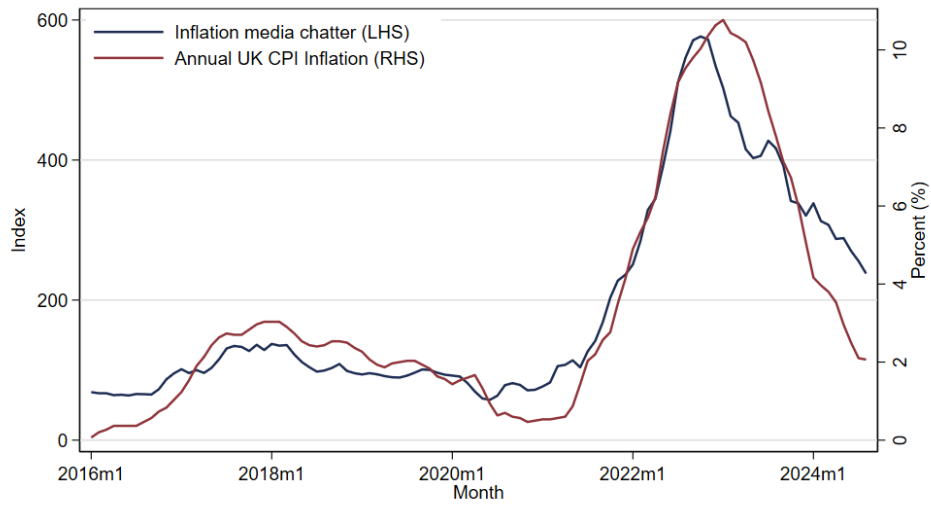
**Notes:** This figure plots the impact of CPI inflation changes (Panel A) and CPI surprises (Panel B) on expected year-ahead own-price growth based on the methodology outlined in Section 3. The coefficients in Panels A and B are estimated in the same regression. The omitted category is the day before the CPI release. 90% confidence intervals are reported around the point estimates.

Figure 8: Impact of CPI inflation changes on expected own-price growth: Hourly window specification (2022-2024)



**Notes:** This figure plots coefficient estimates of the impact of CPI inflation changes on expected own-price growth based on the methodology outlined in Section 3, but applied to the hourly frequency. The omitted category is 12-1pm on the day before the CPI release (t-19). Each coefficient value is scaled by the average number of observations in the corresponding hour in the sample. The red horizontal line in the post-CPI release hours is the pooled coefficient estimate of the change in CPI inflation on expected own-price growth. The shaded area denotes the 90% confidence interval. Months in which the CPI release is outside the survey window are dropped - March 2022, March 2023, May 2023, December 2023. Hours with fewer than 20 observations on average are not reported in the figure.

Figure 9: CPI inflation and inflation media chatter (2016-2024)



**Notes:** Inflation media chatter is the share of articles in British newspapers which mention the terms 'inflation' or 'CPI' or 'Consumer Price Index'. This measure has been normalised to have an average value of 100 over the period 2010-2019. Both series are three-month moving averages

## 7 Tables

Table 1: Balance test across survey window

	(1)	(2)	(3)	(4)	(5)
Dependent variable:	log Labour Productivity	log Assets	log Sales	log Employment	Survey Duration
Sample: Event Window:			2022-2024 ±2 Day		
=1 Post-release	-0.009 (0.027)	0.068 (0.066)	0.021 (0.059)	0.076 (0.049)	0.197 (1.012)
Constant	3.942*** (0.024)	9.094*** (0.057)	9.899*** (0.051)	4.247*** (0.043)	27.937*** (0.896)
Industry fixed effects	Yes	Yes	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes	Yes	Yes
R <sup>2</sup>	0.242	0.166	0.163	0.097	0.139
Observations	4,573	6,146	4,876	6,134	6,147

Notes: The dependent variables in Columns 1-4 are based on FY2021 accounting data from the Bureau Van Dijk FAME database. Labour productivity (Column 1) is calculated as the ratio of real gross value added to the number of employees. The sample of firms are those which respond to the question on expected own-price growth. Robust standard errors are reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table 2: Impact of CPI inflation changes and CPI surprises on current CPI inflation perceptions

	(1)	(2)	(3)
Dependent variable:	Current CPI inflation perceptions		
Event Window:	±2 Day	±5 Day	±7 Day
Sample:	2022-2024		
$\Delta$ CPI Inflation $\times$ Post	0.636*** (0.060)	0.676*** (0.049)	0.688*** (0.036)
CPI Surprise $\times$ Post	0.108 (0.254)	0.002 (0.216)	0.005 (0.151)
Firm fixed effects	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes
Test coefficient = 1 (p-value)	0.000	0.000	0.000
R <sup>2</sup>	0.936	0.927	0.914
Observations	4,993	6,576	11,217

Notes: Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table 3: Impact of CPI inflation changes and CPI surprises on expected own-price growth

Dependent variable: Event Window:	(1) Expected own-price growth ±2 Day	(2) Expected own-price growth ±5 Day	(3) Expected own-price growth ±7 Day
<i>Panel A: 2022-2024</i>			
Δ CPI Inflation × Post	0.312* (0.165)	0.348*** (0.132)	0.287*** (0.096)
CPI Surprise × Post	0.042 (0.646)	-0.221 (0.458)	-0.300 (0.354)
R <sup>2</sup>	0.694	0.683	0.650
Observations	4,263	5,702	9,701
<i>Panel B: 2017-2021</i>			
Δ CPI Inflation × Post	-0.259 (0.227)	-0.005 (0.172)	0.072 (0.130)
CPI Surprise × Post	-0.261 (0.425)	-0.006 (0.343)	-0.202 (0.260)
R <sup>2</sup>	0.691	0.660	0.638
Observations	7,520	11,683	16,853
Additional firm controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes

Notes: Additional firm controls include annual own-price growth and annual sales growth. Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table 4: Impact of CPI inflation changes and CPI surprises on own-price expectations: Interaction with inflation media chatter

Dependent variable: Event Window: Sample:	(1)	(2)	(3)
	Expected own-price growth $\pm 2$ Day 2017-2024		
$\Delta$ CPI Inflation $\times$ Post	-0.081 (0.162)	-0.093 (0.161)	-0.095 (0.161)
CPI Surprise $\times$ Post	0.003 (0.367)	0.019 (0.365)	0.026 (0.363)
$\Delta$ CPI Inflation $\times$ Post $\times$ Inflation Media Chatter <sub>-3</sub>	0.367*** (0.135)		
$\Delta$ CPI Inflation $\times$ Post $\times$ Inflation Media Chatter <sub>-5</sub>		0.381*** (0.136)	
$\Delta$ CPI Inflation $\times$ Post $\times$ Inflation Media Chatter <sub>-7</sub>			0.387*** (0.137)
CPI Surprise $\times$ Post $\times$ Inflation Media Chatter <sub>-3</sub>	0.087 (0.367)		
CPI Surprise $\times$ Post $\times$ Inflation Media Chatter <sub>-5</sub>		0.028 (0.364)	
CPI Surprise $\times$ Post $\times$ Inflation Media Chatter <sub>-7</sub>			0.007 (0.368)
Additional firm controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes
R <sup>2</sup>	0.693	0.693	0.693
Observations	11,665	11,665	11,665

Notes: Inflation media chatter is the share of articles in British newspapers which mention the terms 'inflation' or 'CPI' or 'Consumer Price Index'. The variable Inflation Media Chatter<sub>-3</sub> is the average inflation media index in the three days prior to a CPI release, normalised to have 0 mean and a unit standard deviation. Additional firm controls include annual own-price growth and annual sales growth. Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table 5: Impact of CPI inflation changes and CPI surprises on CPI inflation expectations

Dependent variable:	(1)	(2)	(3)	(4)
	One-year ahead expected CPI		Three-years ahead expected CPI	
Event Window:	±2 Day	±7 Day	±2 Day	±7 Day
Sample:	2022-2024		2022-2024	
$\Delta$ CPI Inflation $\times$ Post	0.284*** (0.101)	0.275*** (0.066)	0.069 (0.086)	0.076 (0.050)
CPI Surprise $\times$ Post	0.602 (0.415)	0.209 (0.227)	0.467 (0.330)	0.050 (0.182)
Firm fixed effects	Yes	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes	Yes
$R^2$	0.789	0.754	0.649	0.630
Observations	4,993	11,218	4,993	11,218

Notes: Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

# Online Appendix

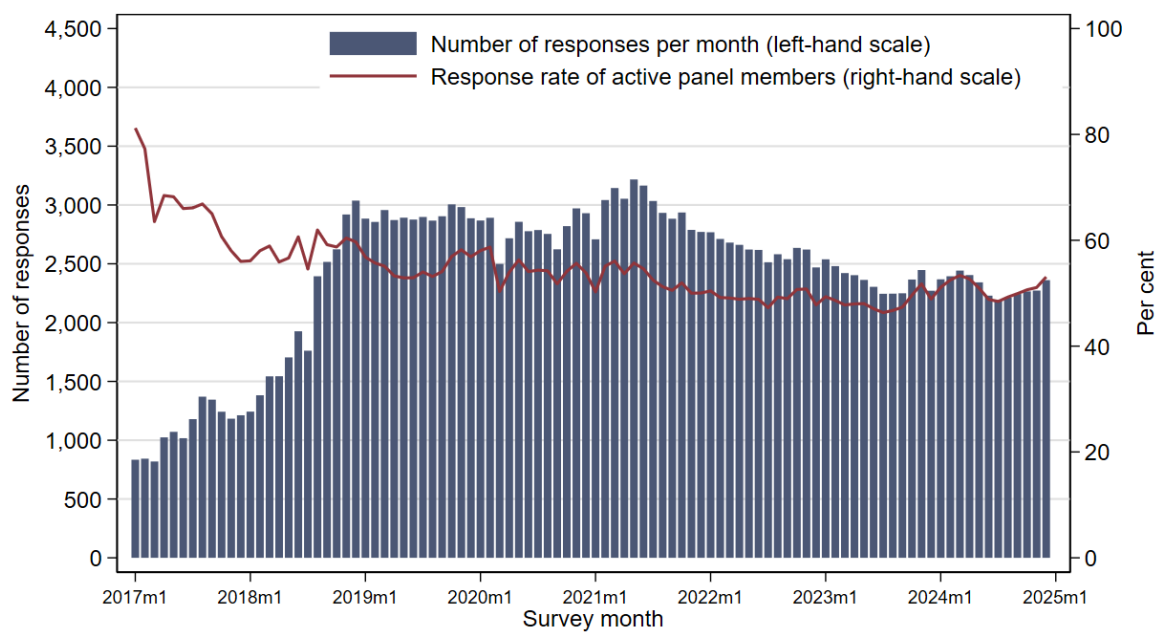
## The Speed of Firm Response to Inflation

For Online Publication

February 7, 2025

### A Figures

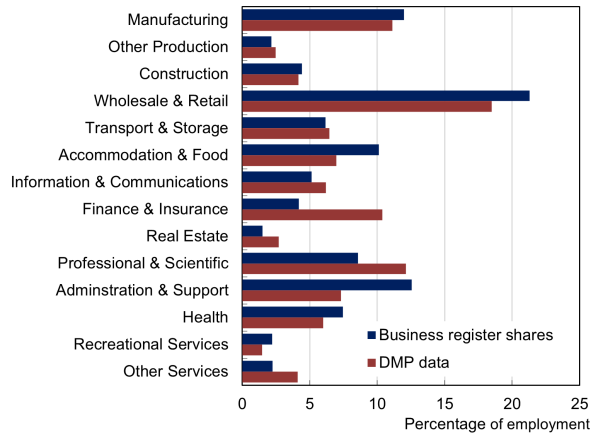
Figure A1: DMP response rate



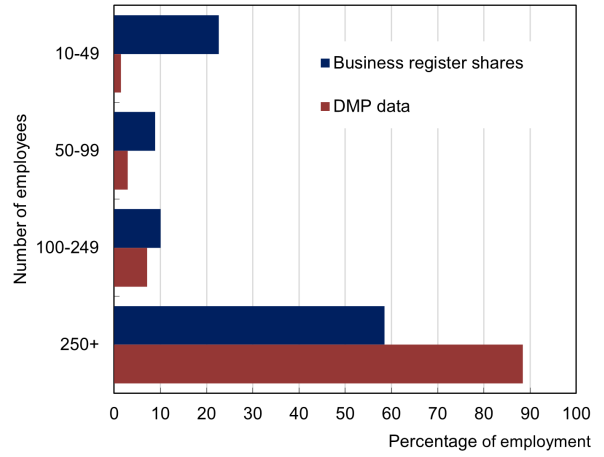
**Notes:** This figure presents the number of monthly responses to the DMP. The solid line shows the *active* response rate, referring to the response rate among firms which have responses at least once over the past 12 months.

Figure A2: Coverage of DMP survey by industry and firm size

Panel A: Industry



Panel B: Firm Size



**Notes:** This figure compares the coverage of the DMP survey across industries (Panel A) and by firm size (Panel B), based on data over 2017-2023.

Figure A3: Format of question on expected own-price growth

Panel A: Scenarios

# Decision Maker Panel



Looking ahead, from now to 12 months from now, what approximate % change in your AVERAGE PRICE would you expect in each of the following scenarios?

*Note:*  
Price growth scenarios should be ordered from the lowest to the highest.

- The LOWEST % change in my prices would be about:  %
- A LOW % change in my prices would be about:  %
- A MIDDLE % change in my prices would be about:  %
- A HIGH % change in my prices would be about:  %
- The HIGHEST % change in my prices would be about:  %

Panel B: Probabilities

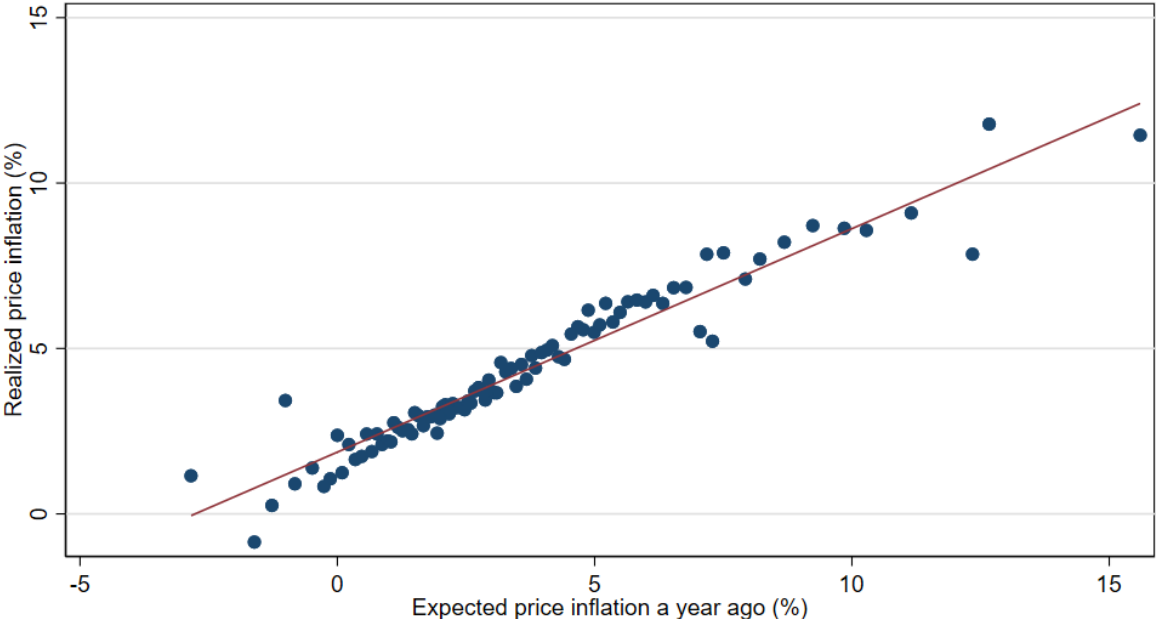
# Decision Maker Panel



Please assign a percentage likelihood (probability) to the % changes in your AVERAGE PRICES you entered (values should sum to 100%).

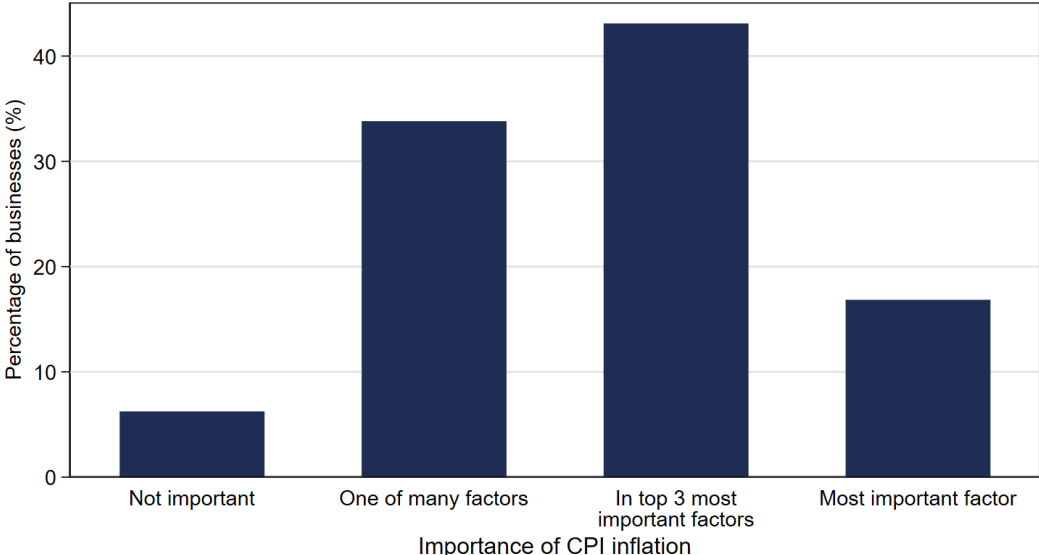
- LOWEST: The likelihood of realising about 2% would be:  %
- LOW: The likelihood of realising about 3% would be:  %
- MIDDLE: The likelihood of realising about 4% would be:  %
- HIGH: The likelihood of realising about 5% would be:  %
- HIGHEST: The likelihood of realising about 8% would be:  %
- Total:  %

Figure A4: Expected and realised firm own-price growth



**Notes:** This figure presents a binned scatterplot of the relationship between expected year-ahead own-price growth and realised own-price growth *a year later* for the same firms. Each dot represents approximately 1% of the sample of firms. The figure is based on data from November 2017 to December 2024.


Figure A5: Importance of CPI inflation for current pricing decisions



**Notes:** This figure presents the importance of CPI inflation for current pricing decisions of firms in the DMP. The data are based on a survey question asked between May to July 2023.

Figure A6: Format of question on current CPI inflation perceptions and CPI inflation expectations

# Decision Maker Panel



**BANK OF ENGLAND**

We would now like to ask you about your expectations for annual consumer price inflation in the UK economy as a whole.

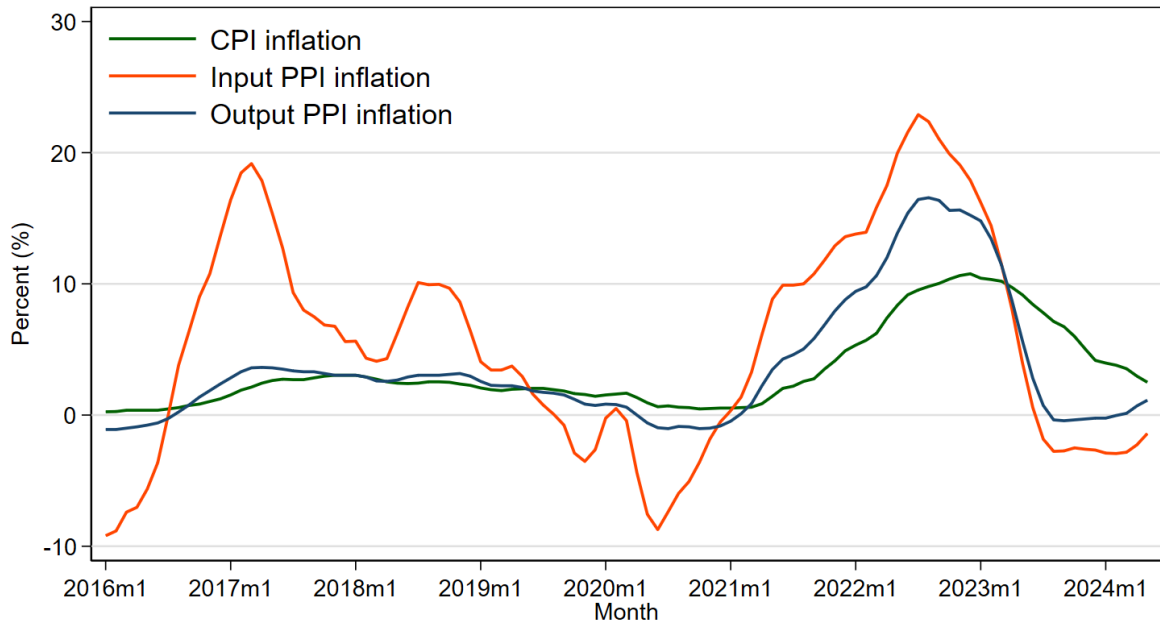
As a percentage, what do you think is the current annual CPI inflation rate in the UK?  
And, what do you think the annual CPI inflation rate will be in the UK, both one year from now and three years from now?

*Note: Consumer price inflation is the rate at which the prices of goods and services bought by households rise or fall. It is measured by the Consumer Prices Index (CPI). The annual inflation rate compares prices for the latest month with the same month a year ago.*

Current rate of inflation	<input type="text"/>	%
Inflation one year from now	<input type="text"/>	%
Inflation three years from now	<input type="text"/>	%

Bank of England | [Decision Maker Panel](#)

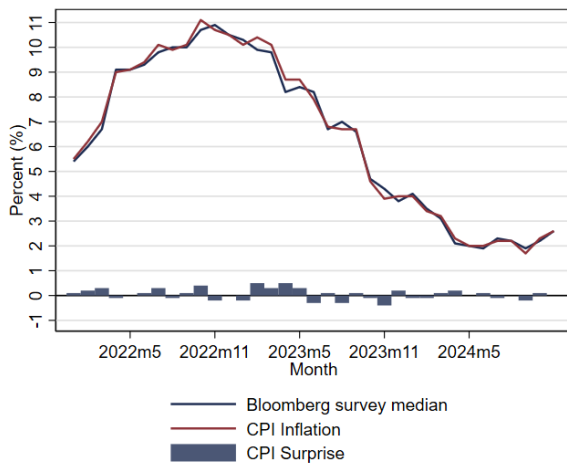
Figure A7: Trends in CPI inflation and PPI inflation rates



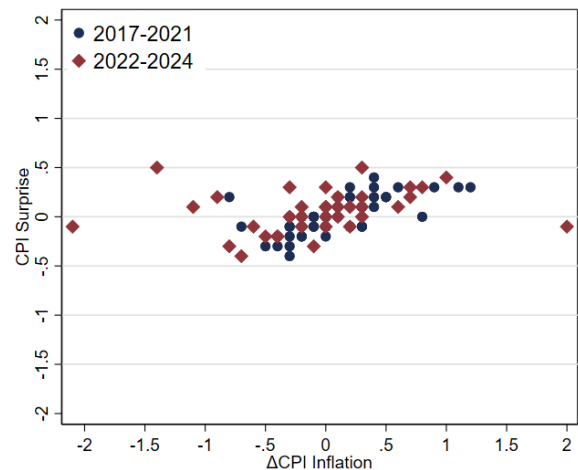
**Notes:** This figure shows the trends in CPI inflation, PPI input inflation, and PPI output inflation rates. The data are taken from the Office for National Statistics. The series are all three-month moving averages.

Figure A8: CPI Inflation Changes, Bloomberg Forecasts, and Bloomberg CPI Surprises

Panel A: CPI Inflation and Bloomberg Forecasts

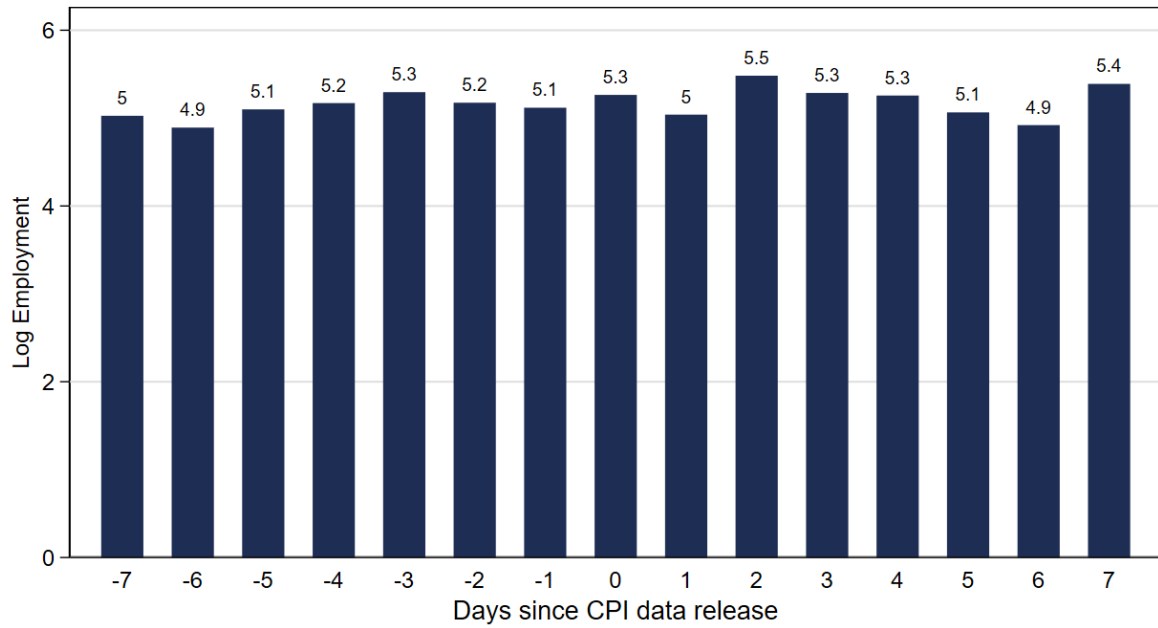


Panel B: CPI Inflation Changes vs. Bloomberg CPI Surprises



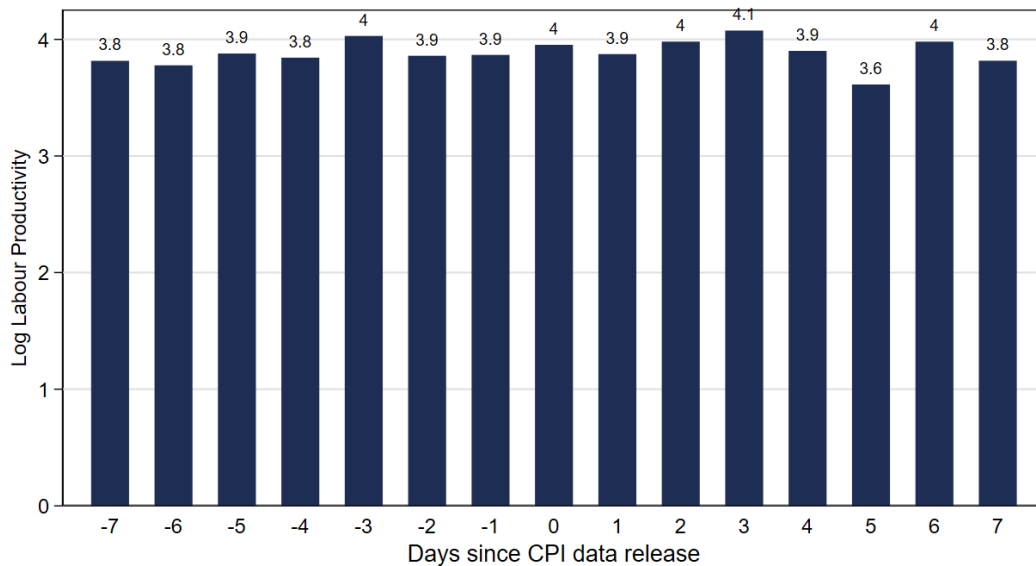
**Notes:** Panel A presents the time series in CPI inflation and the Bloomberg median forecasts for each month. Panel B presents a scatterplot of changes in headline CPI inflation rates (horizontal axis) and CPI surprises (vertical axis). Bloomberg CPI surprises are defined as the difference between the CPI outturns and the Bloomberg survey median forecast for CPI inflation.

Figure A9: Average firm employment around CPI release dates



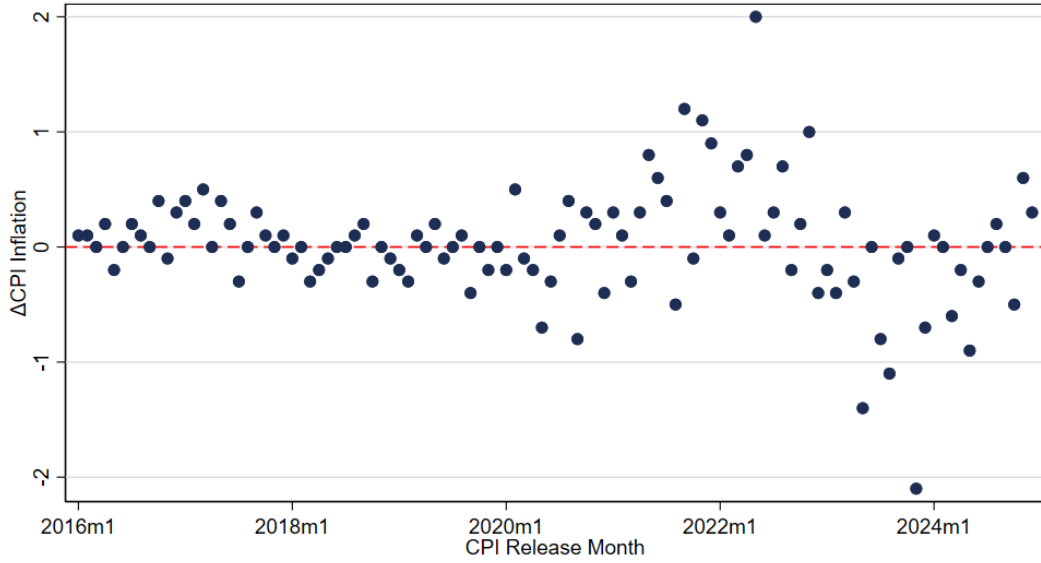
**Notes:** This figure shows the average firm employment (in natural logarithms) around CPI release dates (indicated by 0 on the horizontal axis). The period of CPI releases covers 2022 to 2024.

Figure A10: Average firm labour productivity around CPI release dates



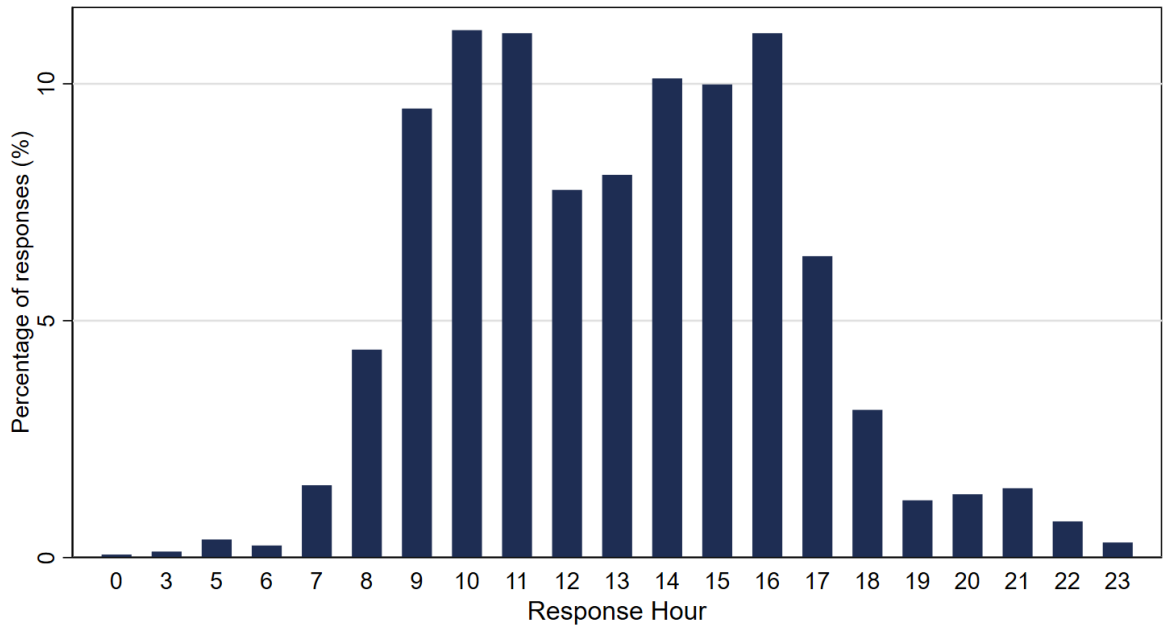
**Notes:** This figure shows the average firm labour productivity around CPI release dates (indicated by 0 on the horizontal axis). The period of CPI releases covers 2022 to 2024. Labour productivity is defined as the ratio of real gross value added to the number of employees. This is calculated using FY2021 accounting data from the Bureau Van Dijk FAME database.

Figure A11: UK annual CPI inflation changes



**Notes:** This figure plots monthly changes in UK annual CPI inflation between January 2016 and December 2024. The data are taken from the Office for National Statistics.

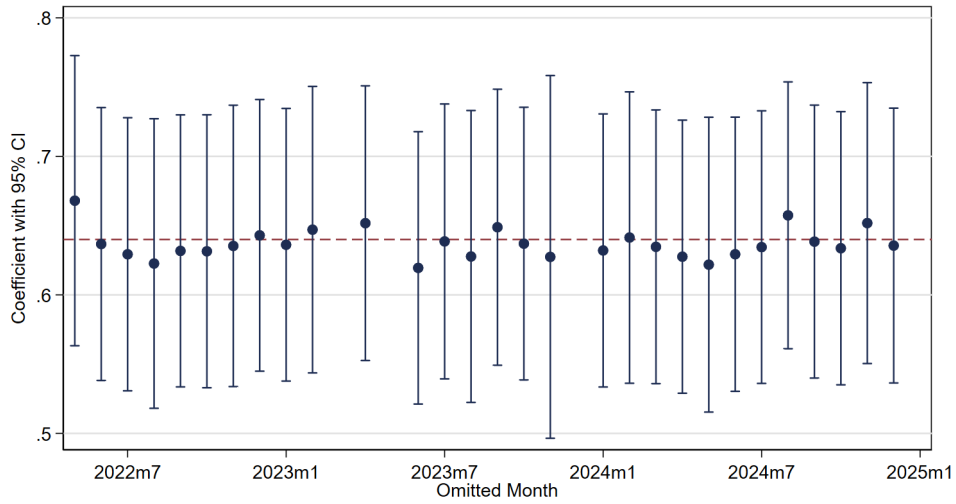
Figure A12: Distribution of responses by hour on CPI release dates (2022-2024)



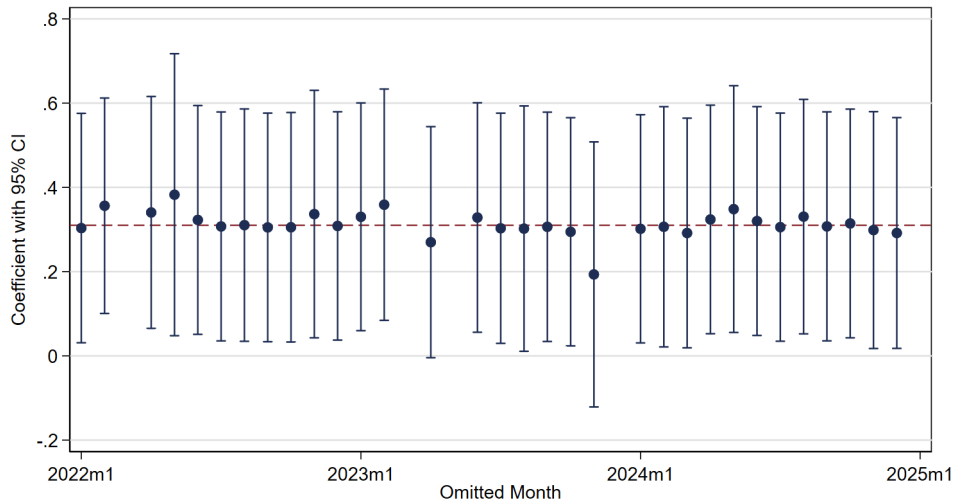
**Notes:** This figure shows the distribution of firm responses by hour on the day of the CPI release. These data are based on the period 2022-2024.

Figure A13: Impact of CPI inflation changes: Robustness to iteratively dropping months from estimation sample

Panel A: CPI inflation perceptions

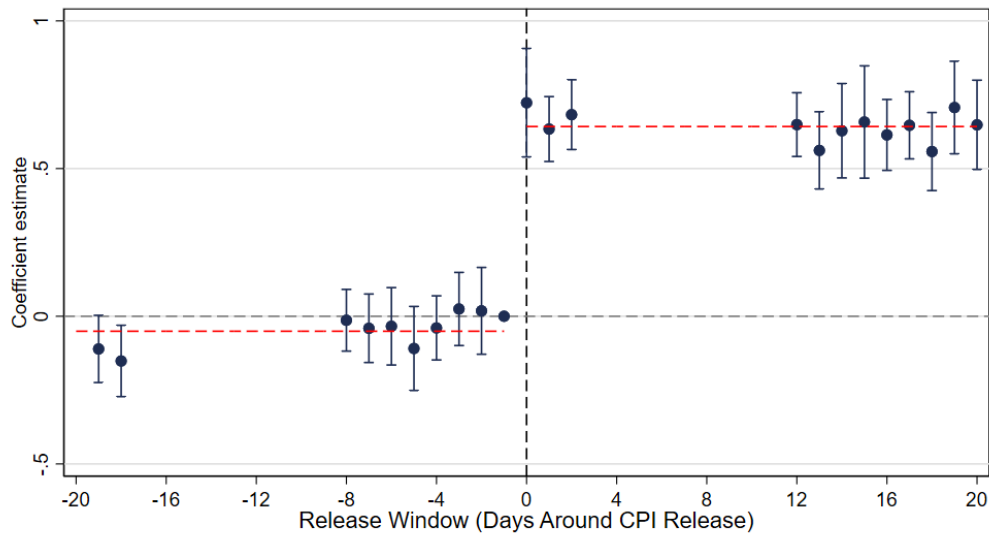


Panel B: Expected own-price growth (2022-2024)



**Notes:** This figure shows estimated coefficients of the effect of CPI inflation changes based on the regression framework outlined in the paper. Each regression is estimated over a  $\pm 2$  day period, with firm, time, and release date fixed effects. Each coefficient is based on an estimation dropping an individual month from the estimation sample. The dashed horizontal lines correspond to the coefficient estimate over the full sample. 90% confidence intervals are reported around the point estimates.

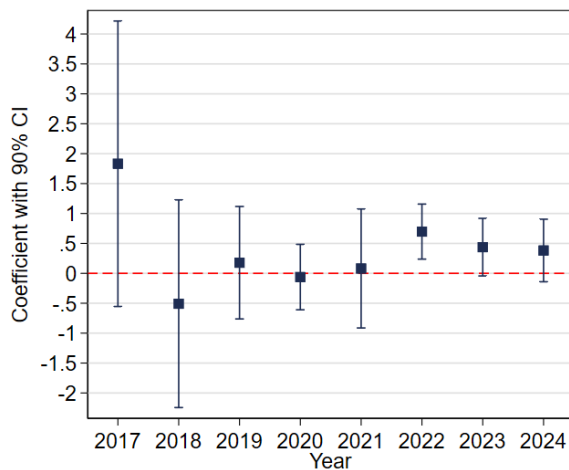
Figure A14: Impact of CPI inflation changes on current CPI inflation perceptions: Extended window specification



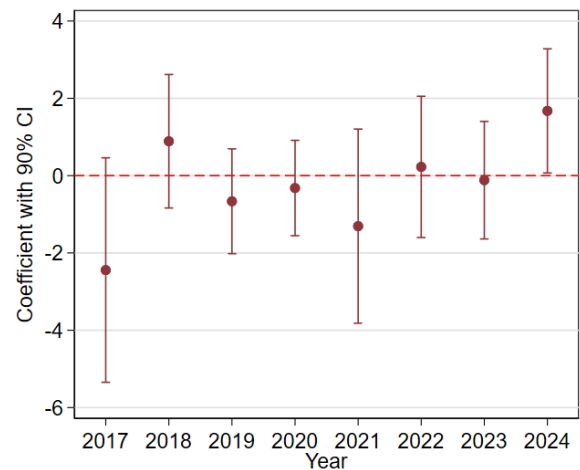
**Notes:** This figure plots the impact of CPI inflation changes on current CPI inflation perceptions based on the methodology outlined in Section 3. The omitted category is the day before the CPI release. 90% confidence intervals are reported around the point estimates. The red horizontal lines denote the average of the coefficients in the pre and post CPI release periods. Weekend responses are merged with the previous Friday. Months in which the CPI release is outside the survey window are dropped - March 2022, March 2023, May 2023, December 2023. Days with fewer than 30 responses are dropped.

Figure A15: Impact of CPI inflation changes and CPI surprises on expected own-price growth: Results by year

Panel A: CPI Inflation Changes

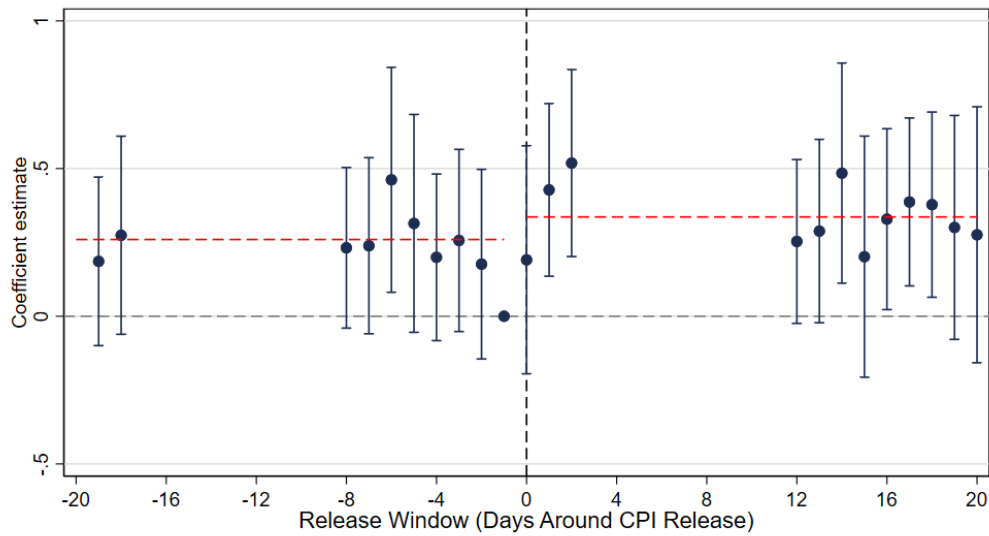


Panel B: CPI Surprises



**Notes:** This figure plots the impact of CPI inflation changes (Panel A) and CPI surprises (Panel B) on expected year-ahead own-price growth based on Equation 2, with interactions for each year of the full sample period. The coefficients in Panels A and B are estimated in the same regression. 90% confidence intervals are reported around the point estimates.

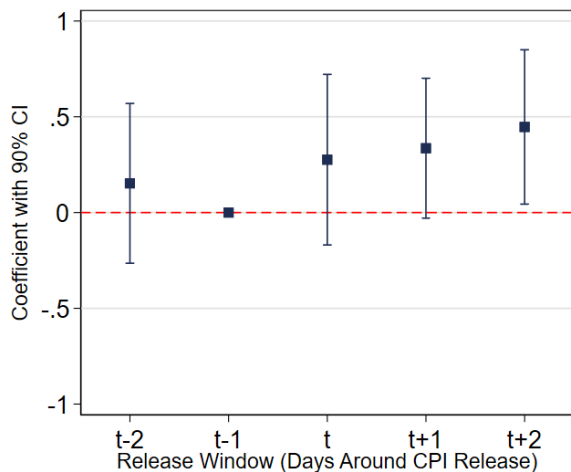
Figure A16: Impact of CPI inflation changes on expected own-price growth: Extended window specification



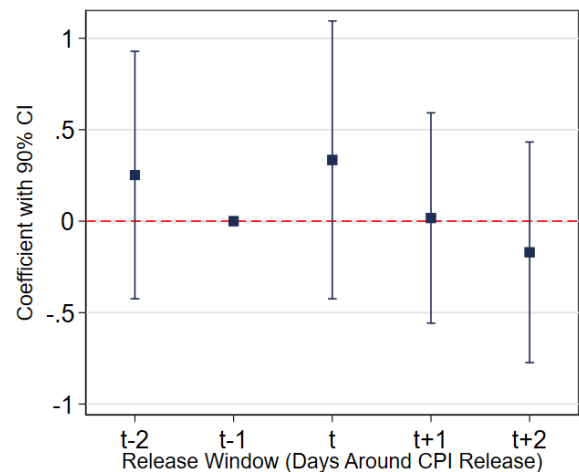
**Notes:** This figure plots the impact of CPI inflation changes on year-ahead own-price growth based on the methodology outlined in Section 3. The omitted category is the day before the CPI release. 90% confidence intervals are reported around the point estimates. The red horizontal lines denote the average of the coefficients in the pre and post CPI release periods. Weekend responses are merged with the previous Friday. Months in which the CPI release is outside the survey window are dropped - March 2022, March 2023, May 2023, December 2023. Days with fewer than 30 responses are dropped.

Figure A17: Impact of CPI inflation changes on own-price expectations by high vs. low inflation media chatter (2017-2024)

Panel A: High Inflation Media Coverage



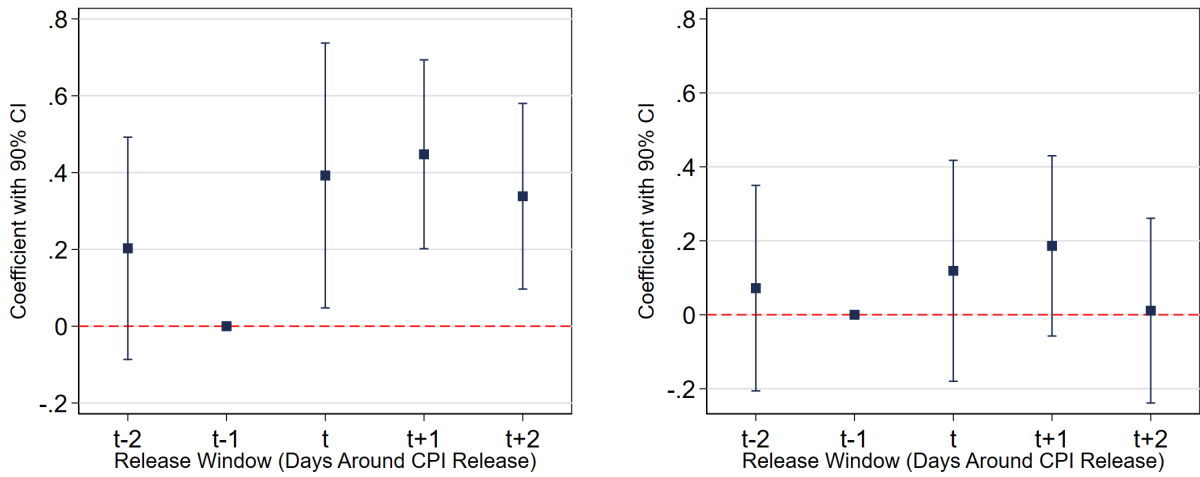
Panel B: Low Inflation Media Coverage



**Notes:** This figure plots the impact of CPI inflation changes on own-price expectations based on the methodology in Section 3. The results are based on data over 2017-2024. Panel A (B) shows the effect for months with above median (below median) inflation media coverage. The omitted category is the day before the CPI release. 90% confidence intervals are reported around the point estimates.

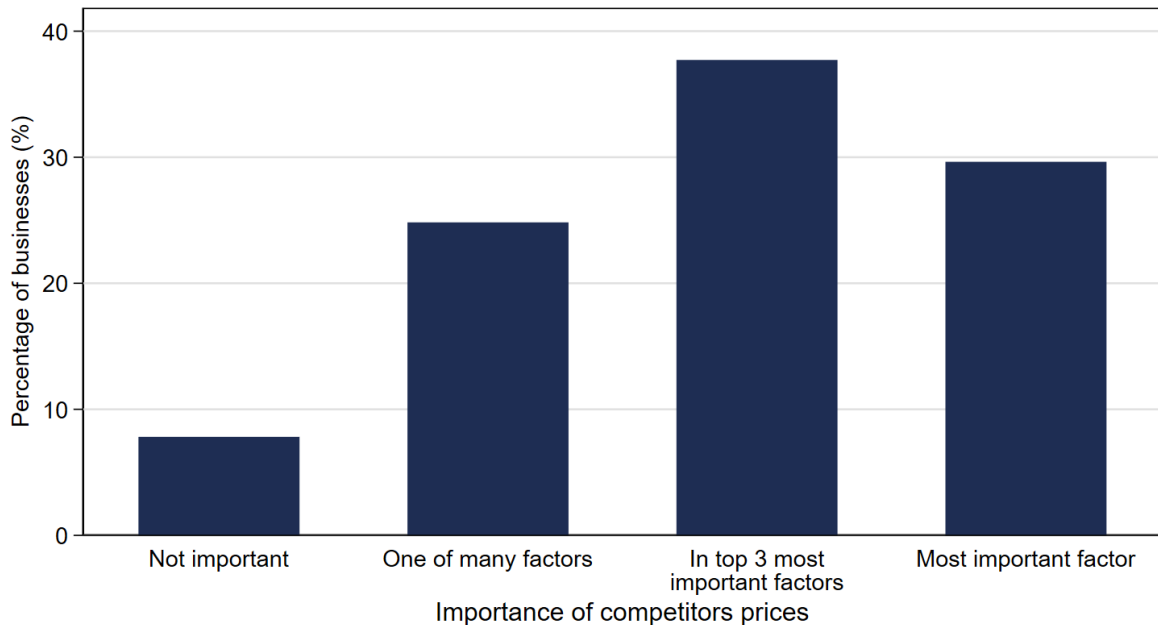
Figure A18: Impact of CPI inflation changes on one-year and three-year CPI inflation expectations

Panel A: 1-Year CPI Inflation Expectations      Panel B: 3-Year CPI Inflation Expectations



**Notes:** This figure plots the impact of CPI inflation changes on one-year (Panel A) and three-year (Panel B) CPI inflation expectations based on the methodology outlined in Section 3. The omitted category is the day before the CPI release. 90% confidence intervals are reported around the point estimates.

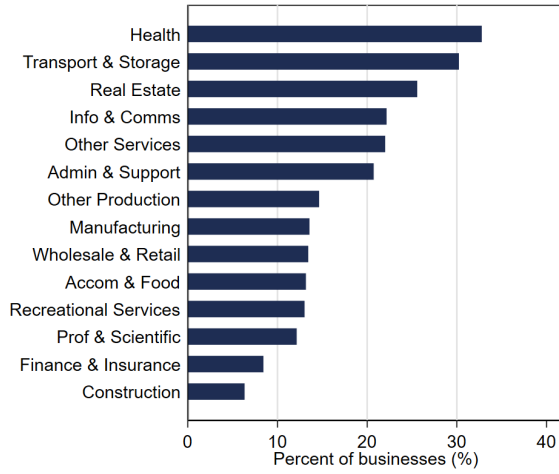
Figure A19: Importance of competitors prices for current pricing decisions



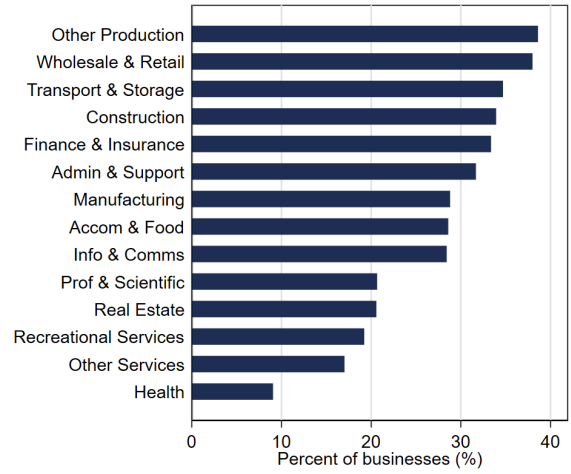
**Notes:** This figure presents the importance of competitors prices for current pricing decisions of firms in the DMP. The data are based on a survey question asked between May to July 2023.

Figure A20: Importance of CPI inflation and competitors prices for own pricing decisions by industry

Panel A: CPI Inflation

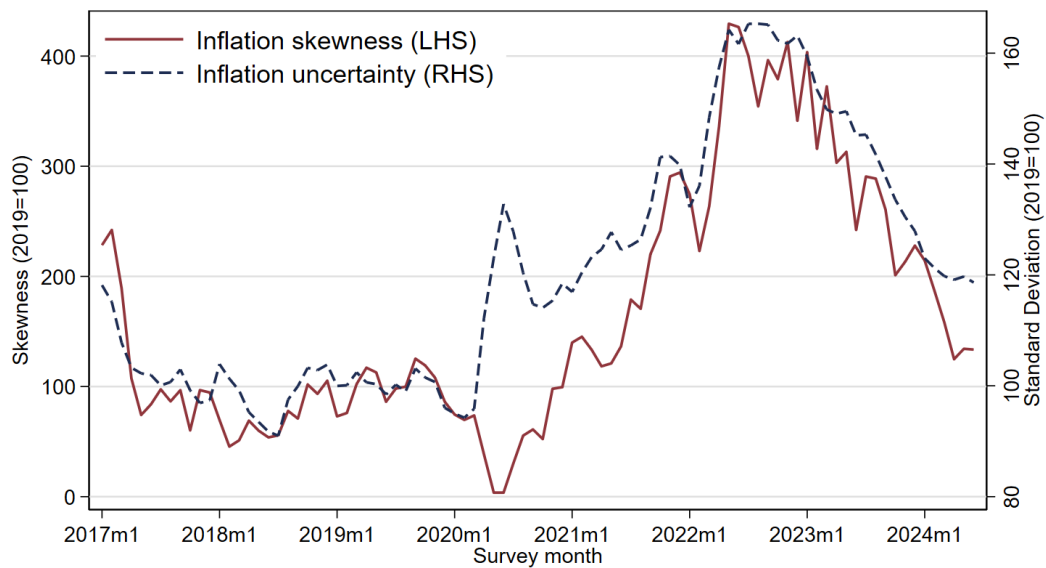


Panel B: Competitors Prices



Notes: This figure shows the percentage of businesses in each industry who cite CPI inflation (Panel A) and competitors prices (Panel B) as the *most important* factor affecting their current pricing decisions. The data are based on a survey question asked between May and July 2023.

Figure A21: Subjective inflation uncertainty and skewness



Notes: The series are three-month moving averages.

## B Tables

Table A1: Impact of CPI inflation changes and CPI surprises on own-price expectations: Full sample specification

Dependent variable: Event Window: Sample:	(1)	(2)	(3)
	Expected own-price growth		
	±2 Day	±5 Day	±7 Day
	2017-2024		
Δ CPI Inflation × Post	0.275** (0.126)	0.286*** (0.097)	0.238*** (0.072)
CPI Surprise × Post	-0.307 (0.348)	-0.121 (0.257)	-0.241 (0.202)
Additional firm controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes
R <sup>2</sup>	0.686	0.674	0.652
Observations	12,785	18,437	27,688

Notes: Additional firm controls include annual own-price growth and annual sales growth. Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A2: Impact of CPI inflation changes and CPI surprises on own-price expectations: Daily dataset

Dependent variable: Event Window: Sample:	(1)	(2)	(3)
	Expected own-price growth		
	±2 Day	±5 Day	±7 Day
	2022-2024		
Δ CPI Inflation × Post	0.657*** (0.176)	0.455*** (0.154)	0.364*** (0.117)
CPI Surprise × Post	0.202 (0.622)	-0.413 (0.560)	-0.466 (0.456)
Release window fixed effects	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes
R <sup>2</sup>	0.718	0.715	0.718
Observations	159	191	265

Notes: Daily observations are weighted by the square root of the number of firm responses on that day. Robust standard errors are reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A3: Impact of CPI inflation changes on expected own-price growth: Test for pre-announcement effects

Dependent variable: Event Window: Sample:	(1)	(2)	(3)	(4)
	Expected own-price growth			
	±2 Day	±5 Day	±7 Day	±2 Day
	2022-2024			2017-2021
$\Delta \text{CPI Inflation}_t$	-0.056 (0.144)	-0.084 (0.099)	-0.044 (0.061)	0.782*** (0.161)
$\Delta \text{CPI Inflation}_t \times \text{Post}$	0.338** (0.158)	0.365*** (0.117)	0.307*** (0.088)	-0.283 (0.180)
$\Delta \text{CPI Inflation}_{t-1}$	0.330*** (0.086)	0.333*** (0.074)	0.201*** (0.053)	0.607*** (0.088)
$\Delta \text{CPI Inflation}_{t-2}$	0.123* (0.067)	0.156*** (0.059)	0.227*** (0.046)	0.575*** (0.091)
$\Delta \text{CPI Inflation}_{t-3}$	0.361*** (0.070)	0.377*** (0.064)	0.363*** (0.047)	0.319*** (0.086)
$\Delta \text{CPI Inflation}_{t-4}$	0.334*** (0.077)	0.349*** (0.066)	0.341*** (0.051)	0.293*** (0.092)
Additional firm controls	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes	Yes
Month fixed effects	No	No	No	No
R <sup>2</sup>	0.680	0.668	0.636	0.680
Observations	4,264	5,702	9,701	7,520
Test coefficients sum = 1 (p-value)	0.000	0.000	0.000	0.000

Notes: Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A4: Impact of CPI inflation changes and CPI surprises on expected own-price growth: Controlling for cost growth and wage growth expectations

Dependent variable: Event Window: Sample:	(1)	(2)	(3)	(4)
	Expected own-price growth $\pm 2$ Day 2022-2024			
$\Delta$ CPI Inflation $\times$ Post	0.312* (0.165)	0.300* (0.182)	0.353* (0.189)	0.342* (0.194)
CPI Surprise $\times$ Post	0.042 (0.646)	0.079 (0.698)	-0.541 (0.814)	-0.251 (0.822)
Expected unit cost growth (yearly average)		0.098*** (0.031)		0.156*** (0.038)
Expected wage growth (quarterly average)			0.081** (0.037)	0.049 (0.034)
Additional firm controls	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes	Yes
$R^2$	0.694	0.712	0.737	0.752
Observations	4,263	3,132	2,264	1,895

Notes: Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A5: Impact of CPI inflation changes and CPI surprises on own-price expectations: Interaction with inflation media chatter (alternative)

Dependent variable: Event Window: Sample:	(1)	(2)	(3)
	Expected own-price growth ±2 Day	±5 Day	±7 Day
	2017-2024		
$\Delta$ CPI Inflation $\times$ Post	-0.088 (0.206)	-0.022 (0.151)	-0.016 (0.114)
$\Delta$ CPI Inflation $\times$ Post $\times$ Inflation Media Chatter $_{t-1}$	0.285** (0.133)	0.226** (0.095)	0.101* (0.059)
CPI Surprise $\times$ Post	-0.473 (0.466)	-0.074 (0.327)	-0.226 (0.242)
CPI Surprise $\times$ Post $\times$ Inflation Media Chatter $_{t-1}$	-0.072 (0.386)	-0.252 (0.235)	-0.033 (0.149)
Additional firm controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes
$R^2$	0.690	0.677	0.655
Observations	12,145	17,646	26,441

Notes: Inflation media chatter is the share of articles in British newspapers which mention the terms 'inflation' or 'CPI' or 'Consumer Price Index'. The variable Inflation Media Chatter $_{t-1}$  is lagged inflation media index, normalised to have 0 mean and a unit standard deviation. Additional firm controls include annual own-price growth and annual sales growth. Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A6: Impact of CPI inflation changes and CPI surprises: Effects on additional variables

Dependent variable:	(1)	(2)	(3)	(4)
Event Window: Sample:	Expected real sales growth	Expected cost growth	Expected wage growth	Expected borrowing rate
	±2 Day 2022-2024			
Δ CPI Inflation × Post	-0.250 (0.426)	0.187 (0.283)	-0.193** (0.094)	0.016 (0.183)
CPI Surprise × Post	1.532 (1.799)	1.590 (0.977)	0.333 (0.364)	0.526 (0.920)
Firm fixed effects	Yes	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes	Yes
R <sup>2</sup>	0.584	0.700	0.650	0.695
Observations	4,430	2,125	5,162	1,630

Notes: Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A7: Impact of CPI inflation changes and CPI surprises: Test for nonlinearities

	(1)	(2)	(3)	(4)
Dependent variable:	Current CPI inflation perceptions		Expected own-price growth	
Event Window:	$\pm 2$ Day		$\pm 2$ Day	
Sample:	2022-2024		2022-2024	
$\Delta$ CPI Inflation $\times$ Post $\times$ $\Delta$ CPI Inflation $< 0$	0.520*** (0.086)	0.652*** (0.055)	0.203 (0.204)	0.025 (0.108)
$\Delta$ CPI Inflation $\times$ Post $\times$ $\Delta$ CPI Inflation $\geq 0$	0.668*** (0.149)	0.681*** (0.092)	0.456** (0.231)	0.510*** (0.142)
CPI Surprise $\times$ Post $\times$ Surprise $< 0$	0.418 (0.857)	0.168 (0.510)	-1.727 (1.249)	-1.051 (0.688)
CPI Surprise $\times$ Post $\times$ Surprise $\geq 0$	-0.011 (0.518)	0.002 (0.282)	-0.291 (0.660)	-0.345 (0.378)
Additional firm controls	No	No	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes	Yes
R <sup>2</sup>	0.936	0.914	0.687	0.652
Observations	4,993	11,217	12,844	27,900
Test CPI change coefficients equal (p-value)	0.409	0.801	0.425	0.009
Test CPI surprise coefficients equal (p-value)	0.648	0.771	0.302	0.364

Notes: This table tests whether the responsiveness of CPI inflation perceptions (Columns 1-2) and own-price growth (Columns 3-4) to CPI inflation changes and CPI surprises is different for positive vs. negative changes. The estimation period is 2022 to 2024. Additional firm controls include annual own-price growth and annual sales growth. Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A8: Impact of CPI inflation changes and PPI inflation changes on own-price expectations

	(1)	(2)	(3)	(4)	(5)
Dependent variable:	Expected own-price growth				
Event Window:	±2 Day				
Sample period:	2022-2024				
Sample:	All firms			Manufacturing	
Δ CPI Inflation × Post	0.315** (0.157)			0.295* (0.167)	0.536 (0.439)
Δ PPI Input Inflation × Post		-0.026 (0.064)		-0.091 (0.113)	-0.260 (0.237)
Δ PPI Output Inflation × Post			0.040 (0.088)	0.085 (0.163)	0.478 (0.340)
Additional firm controls	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes	Yes	Yes
R <sup>2</sup>	0.694	0.694	0.694	0.694	0.709
Observations	4,263	4,263	4,263	4,263	783

Notes: Additional firm controls include annual own-price growth and annual sales growth. Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A9: Impact of CPI inflation changes and PPI inflation changes on expected own-price growth: Test for pre-announcement effects

Dependent variable: Event Window: Sample:	(1)	(2)	(3)	(4)
	Expected own-price growth $\pm 2$ Day 2022-2024			
$\Delta$ CPI Inflation <sub>t</sub>	-0.056 (0.144)			-0.030 (0.168)
$\Delta$ CPI Inflation <sub>t</sub> $\times$ Post	0.338** (0.158)			0.301* (0.169)
$\Delta$ PPI Input Inflation <sub>t</sub>		-0.057 (0.062)		-0.073 (0.100)
$\Delta$ PPI Input Inflation <sub>t</sub> $\times$ Post		-0.036 (0.068)		-0.089 (0.114)
$\Delta$ PPI Output Inflation <sub>t</sub>			0.112 (0.086)	0.203 (0.149)
$\Delta$ PPI Output Inflation <sub>t</sub> $\times$ Post			0.028 (0.091)	0.090 (0.164)
Additional firm controls	Yes	Yes	Yes	Yes
Lags of CPI/PPI releases	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes	Yes
Month fixed effects	No	No	No	No
$R^2$	0.680	0.662	0.665	0.686
Observations	4,264	4,264	4,264	4,264

Notes: Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A10: Impact of CPI inflation changes on own-price expectations: Further heterogeneity results

Dependent variable: Event Window: Sample:	(1)	(2)	(3)	(4)	(5)
	Expected own-price growth ±2 Day 2022-2024				
Δ CPI Inflation × Post	0.315** (0.157)				
Δ CPI Inflation × Post × Goods		0.269 (0.223)			
Δ CPI Inflation × Post × Services		0.300 (0.217)			
Δ CPI Inflation × Post × Firm size < 250			0.423** (0.180)		
Δ CPI Inflation × Post × Firm size ≥ 250			0.036 (0.327)		
Δ CPI Inflation × Post × CPI not most important				0.270 (0.189)	
Δ CPI Inflation × Post × CPI most important				0.460* (0.279)	
Δ CPI Inflation × Post × Competitor prices not most important					0.145 (0.287)
Δ CPI Inflation × Post × Competitor prices most important					0.361* (0.188)
Additional firm controls	Yes	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes	Yes	Yes
R <sup>2</sup>	0.694	0.695	0.695	0.695	0.695
Observations	4,263	4,263	4,263	4,263	4,263
Test coefficients equal (p-value)		0.919	0.306	0.572	0.528

Notes: Additional firm controls include annual own-price growth and annual sales growth. Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A11: Impact of CPI inflation changes and CPI surprises on expected own-price growth: Heterogeneity by labour cost share

Dependent variable: Event Window: Sample:	(1)	(2)	(3)
	Expected own-price growth ±2 Day ±5 Day ±7 Day 2022-2024		
$\Delta$ CPI Inflation $\times$ Post $\times$ Low Labour Cost Share	0.395* (0.219)	0.322* (0.186)	0.272** (0.136)
$\Delta$ CPI Inflation $\times$ Post $\times$ High Labour Cost Share	0.203 (0.248)	0.350** (0.174)	0.301** (0.122)
CPI Surprise $\times$ Post $\times$ Low Labour Cost Share	-0.161 (0.973)	-0.299 (0.654)	-0.454 (0.506)
CPI Surprise $\times$ Post $\times$ High Labour Cost Share	0.239 (0.850)	-0.158 (0.587)	-0.144 (0.435)
Additional firm controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes
R <sup>2</sup>	0.695	0.684	0.652
Observations	4,263	5,702	9,701
Test CPI change coefficients equal (p-value)	0.561	0.907	0.868
Test CPI surprise coefficients equal (p-value)	0.757	0.867	0.624

Notes: Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A12: Impact of CPI inflation changes on inflation uncertainty and skewness

Dependent variable: Event Window: Sample:	(1)	(2)	(3)	(4)
	Inflation uncertainty ±2 Day 2022-2024		Inflation skewness ±2 Day 2022-2024	
$\Delta$ CPI Inflation $\times$ Post	-0.069 (0.071)	-0.061 (0.162)	-1.457 (1.340)	-6.114** (2.969)
$\Delta$ CPI Inflation $\times$ Post $\times$ $ \Delta$ CPI Inflation		-0.006 (0.098)		3.059* (1.840)
Additional firm controls	Yes	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes	Yes
R <sup>2</sup>	0.732	0.732	0.508	0.509
Observations	4,263	4,263	4,263	4,263

Notes: Additional firm controls include annual own-price growth and annual sales growth. Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A13: Impact of CPI inflation changes on own-price expectations:  
Additional controls

Dependent variable: Event Window: Sample:	(1)	(2)	(3)	(4)
	Expected own-price growth ±2 Day 2022-2024			
$\Delta$ CPI Inflation $\times$ Post	0.329** (0.160)	0.315** (0.157)	0.366** (0.150)	0.433** (0.161)
Annual own-price growth <sub>it</sub>		0.142*** (0.017)	0.087*** (0.016)	
Annual sales growth <sub>it</sub>		0.000 (0.003)	0.000 (0.003)	
Inflation uncertainty <sub>it</sub>			0.761*** (0.063)	
Expected sales growth <sub>it</sub>			0.079*** (0.009)	
Sales uncertainty <sub>it</sub>			-0.068*** (0.018)	
$\Delta \ln$ EPU <sub>t</sub>				-0.093 (0.063)
$\Delta \ln$ (FTSE) <sub>t-1</sub>				-6.109 (10.699)
$\Delta \ln$ (USD/GBP Rate) <sub>t-1</sub>				6.220 (13.243)
$\Delta \ln$ (FTSE Volatility) <sub>t-1</sub>				-3.673 (2.236)
Firm fixed effects	Yes	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes	Yes
$R^2$	0.670	0.694	0.739	0.679
Observations	4,546	4,263	4,178	4,301

Notes: Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A14: Impact of CPI inflation changes and CPI surprises on own-price expectations: Controlling for past firm price expectations

	(1)	(2)	(3)
Dependent variable:	Expected own-price growth	Expected own-price growth	$\Delta$ Expected own-price growth
Event Window:	$\pm 7$ Day	$\pm 7$ Day	$\pm 7$ Day
Sample:	2022-2024	2022-2024	2022-2024
$\Delta$ CPI Inflation $\times$ Post	0.287*** (0.096)	0.222** (0.110)	0.452* (0.237)
CPI Surprise $\times$ Post	-0.300 (0.354)	-0.351 (0.427)	-0.780 (0.907)
Expected own-price growth $_{it-3}$		0.107*** (0.023)	
Additional firm controls	Yes	Yes	Yes
Firm fixed effects	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes
R <sup>2</sup>	0.650	0.675	0.205
Observations	9,701	5,953	5,953

Notes: The dependent variable in Column 3 is the change in firm-level own-price expectations based on expectations reported three months earlier. Additional firm controls include annual own-price growth and annual sales growth. Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A15: Impact of CPI inflation changes on own-price expectations: Robustness to firms responding only before or after CPI release

	(1)	(2)
Dependent variable:	Expected own-price growth	
Event Window:	±2 Day	
Sample:	2022-2024	
Δ CPI Inflation × Post	0.312* (0.165)	1.282*** (0.417)
CPI Surprise × Post	0.042 (0.646)	0.568 (1.394)
Additional firm controls	Yes	Yes
Firm fixed effects	Yes	Yes
Release window fixed effects	Yes	Yes
Month fixed effects	Yes	Yes
R <sup>2</sup>	0.694	0.709
Observations	4,263	2,302

Notes: Column 1 presents the results for the full sample of firms. Column 2 is the sub-sample of firms which have responded either only before the release or only after the release. Additional firm controls include annual own-price growth and annual sales growth. Standard errors are clustered at the firm level and reported in parentheses, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

Table A16: Impact of CPI inflation changes and CPI surprises on current CPI inflation perceptions and own-price expectations: Huber robust regressions

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	Current CPI inflation perceptions			Expected own-price growth		
Event Window:	±2 Day	±5 Day	±7 Day	±2 Day	±5 Day	±7 Day
Sample:	2022-2024			2022-2024		
Δ CPI Inflation × Post	0.890*** (0.016)	0.899*** (0.016)	0.877*** (0.016)	0.365*** (0.132)	0.237** (0.107)	0.205** (0.082)
CPI Surprise × Post	0.091 (0.062)	-0.015 (0.065)	-0.086 (0.065)	-0.111 (0.521)	-0.379 (0.411)	-0.284 (0.319)
Additional firm controls	No	No	No	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Month fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Release window fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
R <sup>2</sup>	0.988	0.979	0.963	0.384	0.378	0.384
Observations	6,655	8,259	12,897	5,852	7,341	11,324

Notes: The results are based on Huber robust regressions to downplay the importance of outliers and influential observations, stars indicate \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .