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Do firm expectations respond to monetary policy announcements?



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Abstract

We examine how UK firms adjust their pricing plans—the prices they expect to charge over the next year—in response to monetary policy announcements. Using data from the Decision Maker Panel (DMP) survey (see Yotzov et al., 2023), we find that monetary policy is generally effective: firms tend to lower their expected prices after a policy tightening. Interestingly, firms respond to monetary policy decisions differently from financial market participants, with press coverage playing a crucial role in shaping their pricing plan revisions. Firms are more reactive to large policy rate changes of 50 basis points and above, as observed during the COVID-19 pandemic and the series of rate hikes in late 2022 and early 2023 targeted to curbing inflation.

Disclaimer: The paper upon which the policy brief has been based has been accepted at the Journal of Monetary Economics. This policy brief represents the authors own views and does not necessarily represent the views of either the Bank of Italy or the Eurosystem.

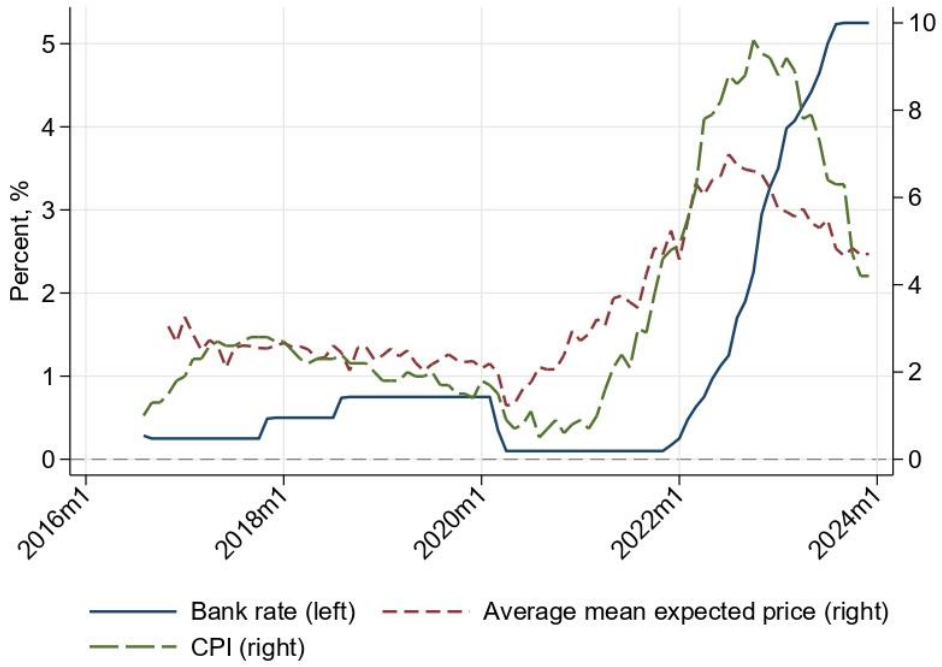
Understanding price expectations' response to monetary policy actions

The primary objective of an inflation-targeting central bank, like the Bank of England, is to maintain inflation close to its target and drive it back towards it in the wake of economic disturbances. The Bank achieves this mainly by adjusting its main policy instrument, the Bank Rate. Between the decision to change the Bank Rate and its effect on inflation lies the transmission mechanism—a complex web of economic relationships that translate policy decisions into inflation outcomes. At the core of this mechanism is the behavior of firms, the entities responsible for setting prices. Understanding how they change their expectations in light of monetary policy decisions is key to assessing the effectiveness of monetary policy.

Traditionally, the effects of monetary policy have been studied through aggregate time-series data—looking at how an unexpected policy rate hike influences overall inflation (e.g. Christiano, Eichenbaum, and Evans, 1999). However, recent research has shifted focus to understanding how individual economic agents, such as firms, react to monetary policy actions. In Di Pace, Mangiante and Masolo (2025) we follow this approach by using the DMP survey data to disentangle how firms' pricing plans respond to monetary policy announcements.

Figure 1 presents the mean expected price growth alongside annual CPI inflation (green line), covering August 2016 to December 2023, a period marked by significant economic developments such as the post-Brexit Referendum period, the actual implementation of Brexit, COVID-19, and the Ukraine-Russia conflict. The figure indicates that these measures comove over time. Notably, the mean expected price growth series exhibits lower volatility compared to actual inflation and appears to lead it, especially around turning points. This suggests that, on average, firms' reported pricing plans could impact actual inflation over the subsequent year.

Figure 1. Bank Rate, firms' average expected price, and CPI inflation

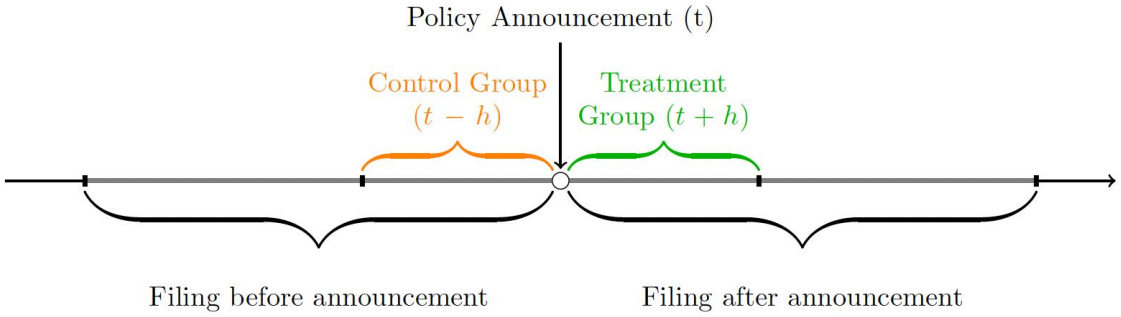


The figure also tracks the evolution Bank Rate over the same period, with the Bank adapting its policy stance to the evolving economic conditions. The aim of our analysis is to understand how changes in the monetary policy stance over this period lead firms to revise their price expectation using microdata, and ultimately impact the aggregate consumer price inflation.

Data and empirical strategy

The DMP survey, conducted monthly on a representative sample of UK firms, captures the distribution of prices that firms expect to charge in the upcoming year: their pricing plan. Our study exploits the timing of survey responses by different firms to disentangle the impact of monetary policy announcements on firms' pricing behavior. By comparing the pricing plans of firms that respond before a monetary policy announcement to those that respond afterward, we can assess whether these policy decisions lead firms to revise their pricing plans downward following a tightening, or upward after a loosening of monetary policy. We choose a window of h days before and after meetings to isolate the effect of the announcement (the empirical strategy is summarized in Figure 2, and used in related work such as Lamla and Vinogradov, 2019).

Figure 2. Timeline of a period (month)
We compare and contrast the responses of firms that respond in the run-up to the policy announcement to those that file their responses afterwards



Challenges in analyzing firms' responses

Two main challenges arise when studying firms' responses to monetary policy.

First, a monetary policy tightening can be either an unexpected shock (a surprise) or a systematic response by the central bank to ongoing economic developments, such as rising inflation due to international factors. Distinguishing between the genuine surprise and the systematic component of the policy decision is complex and invariably requires some assumptions: the economic profession has proposed different methodologies, of which Ramey (2016) provides an excellent summary.

Second, different economic agents—like financial market participants and firms—may interpret and respond to the same monetary policy action in different ways. In particular, they may have different understandings of the economy, different sources of information, and also different abilities to process it. There is therefore a subtler challenge regarding central bank communication: How well do firms understand monetary policy actions? Can they differentiate between an expected central bank action and a genuine policy innovation?

To tackle these issues, we not only use standard measures of monetary policy surprises but also analyze how the press covers these announcements using the GDELT database. Our findings reveal significant differences in what constitutes a monetary policy surprise for financial market participants versus firms. While market-based measures of inflation expectations respond to measures of monetary policy surprises derived from high-frequency asset price movements around an announcement, firm price expectations are unaffected by these measures. This does not mean firms are unresponsive to monetary policy announcements; rather, they react to "less sophisticated" measures of monetary policy shocks, such as simple shifts in the Bank Rate. Interestingly, such measures correlate more closely with how the press reports on monetary policy.

Main findings

The emerging picture is one in which firms are more likely to respond to monetary policy announcements that receive significant press coverage. Unlike financial market participants, the average firm may not track every movement in asset prices, but it does react to well-publicized reports of monetary policy tightening or loosening. In line with economic theory, firms lower their expected prices following a monetary policy tightening (a policy rate hike) and raise them after a loosening (a policy rate cut).

Following the approach by Cloyne and Hürtgen (2016), we separate the predictable part of the announcement from the unexpected shock to better understand the impact of monetary policy shocks on firms' price growth expectations. Our findings unveil that when there is an unexpected policy tightening, firms tend to lower their price expectations. This information, which is reported in the MPR and shared publicly through the media, helps people understand how unexpected policy changes might affect their own expectations for future prices.

We also document significant nonlinearities in firms' responses to rate changes. For instance, the monetary stimulus in March 2020, during the onset of the COVID-19 pandemic, effectively raised price expectations amid unprecedented uncertainty. Conversely, the series of substantial rate hikes in late 2022 and early 2023 significantly reduced firms' price expectations at a time when inflation was well above the Bank's 2% target.

What does this tell us about aggregates?

Using individual-level data representative of the universe of UK firms gives us confidence in our assessment of the impact of monetary policy on their expectations. This covers only part of the transmission mechanism, though. Having established that a monetary policy tightening decision generally translates into a downward revision in firms' expected pricing plans, it remains to be seen if and how this ultimately results in a reduction in aggregate inflation. Our working assumption is that expectations are central to forward-looking firm price setting decisions. Under this assumption, firms revise their expected pricing plans after a policy announcement and then gradually act on them over the course of the following weeks and months. The nature of the DMP dataset means we can only test this link between pricing plans and actual inflation indirectly, using aggregate time-series and a Vector Autoregression model. We find that firms, on average, appear to act on their reported pricing plans. If we see a reduction in expected prices associated with a rise in Bank Rates, we observe a subsequent reduction in the prices that firms report having charged in the previous year that builds up over time, peaking around one-and-a-half years later. A measure of aggregate prices also gradually falls, with the strongest reduction observed at around the two-year mark.

Conclusions

Our analysis suggests that firms respond to the monetary policy announcements that reach them, and they do so in a manner consistent with basic economic theory. This finding indicates that monetary policy is effective in steering the price expectations of firms—the key price setters in the economy. Moreover, firms appear to act on the pricing plans they report in the DMP survey, meaning that changes eventually translate into shifts in aggregate prices and inflation. Overall, our findings highlight that monetary policy, when combined with effective communication, can successfully guide inflation toward its target. Our work underscores the importance of analyzing different economic agents separately, a growing theme in economics, e.g. Coibion and Gorodnichenko (2012), and Reis (2020). The responses of financial markets to monetary policy decisions differ from those of firms.

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