Anchoring of inflation expectations has played a key role in reducing the persistence of inflation and its sensitivity to fluctuations in activity and other factors (Bernanke, 2007; Mishkin, 2007).

- Real shocks have a less persistent effect on inflation dynamics and the exchange rate; pass-through is lower when expectations are better anchored (Krugler, 2010; Brinns et al. 2018; Carriére-Swine et al., 2019).
- Anchoring affects the transmission of monetary policy, with an expansionary stance potentially boosting activity and lowering inflation when expectations are poorly coordinated (Hoffman and Hüglen, 2016).
- Disagreement among inflation forecasters may also lead to an inefficient dispersion in actual prices, even if inflation is stable at low levels.

Objective. While several studies explored the drivers of inflation forecast disagreement (Mankiw et al., 2003; Dovern et al., 2012), there is still limited understanding on how monetary policy actions affect inflation expectation dispersion. This paper aims at filling this void.

Contribution. This paper:
1. Estimates empirically the causal effect of monetary policy surprises in the United States on the dispersion of inflation expectations among individual forecasters.
2. Rationalizes the empirical results with a partial equilibrium rational expectations model withsticky information, in the spirit of Mankiw and Reis (2002).

Empirical Analysis

Specification. To assess the impact of analysts’ surprises about policy rate decisions, $\Delta_p^{t-1} \gamma_p^{t-1}$, on inflation expectation dispersion, $\gamma^{t+1}_p$, we estimate:

$$\gamma^{t+1}_p = \alpha_p + \beta_p \Delta_p^{t-1} \gamma_p^{t-1} + \gamma_p^{t+1}$$

where $\Delta_p$ denotes the analyst fixed effects, which capture any systematic bias in each analyst’s forecasts; and $\gamma_p^{t+1}$ is an i.i.d. error term. Note: The surprise variable is lagged by one period so that, even in the case in which inflation expectation dispersion is calculated at $h = \infty$, the surprises it provides includes the inflation forecast.

Identification. Based on the tight window around the Fed meetings:
1. A narrow post-meeting window reduces the probability that other confounding factors bias the estimates of the impact of monetary surprises on the dispersion of inflation expectations.
2. A narrow pre-meeting window allows analysts to become aware of new information after they submit the forecast for the federal funds rate: if analysts do not re-submit their interest rate forecasts and the new information is correlated with the surprise variable, the estimates would be biased. On average, analysts submit their policy rate forecasts 9 days before the Fed announcement.

A Novel Fact

Baseline. A 100 basis point surprise in the federal funds rate leads, on average, to an increase of 2 to 3 percentage points in inflation dispersion over the short horizon.

Rationalizing the Results

Information rigidity. We contend that information rigidity is essential to explain the empirical patterns we observe. The models predict a different pattern of inflation expectations dispersion in response to monetary policy surprises. Instead, introducing sticky information is key to generate results that are qualitatively in line with our empirical findings. When we extend the model to allow the degree of information rigidity to depend on the realization of firm-specific shocks (rather than an aggregate shock), the theoretical results are qualitatively consistent and qualitatively close to the empirical ones (Figure 2).

Takeaways
- Evidence of causal effects of monetary policy surprises on inflation dispersion in the United States using daily data of federal funds rate forecasts and inflation expectations at the analyst level from major financial institutions and ii) an identification strategy that hinges on a tight window around the Fed meetings.
- A sticky information model that allows the degree of information rigidity to depend on the realization of firm-specific shocks generates results that are qualitatively consistent and quantitatively close to the empirical ones.
- Inflation expectation dispersion, can lead to price dispersion and inflation persistence. From a policy perspective, efforts should be directed at further refining the communication strategy of monetary policy so that information is more aligned across agents.