John C Williams: Discussion of "Monetary policy transmission to real activity"

Remarks by Mr John C Williams, President and Chief Executive Officer of the Federal Reserve Bank of New York, at the 2025 US Monetary Policy Forum, New York City, 7 March 2025.

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As prepared for delivery

Presentation accompanying the speech

It's a pleasure to be here today and to have the opportunity to comment on the paper "Monetary Policy Transmission to Real Activity." This is my fourth time as a discussant at this conference, and I am sure that I speak on behalf of everyone here in thanking the authors for keeping their paper to only 23 pages. This is a welcome improvement over the lengthy tomes of yore that threatened to breach the 100-page mark-not to mention
e-mail attachment size limits.

The paper provides a clear and succinct analysis of the timing and magnitude of effects of monetary policy shocks on spending and employment, both in the aggregate and across sectors. It adds to an extensive research literature that has focused on these issues, and the analysis and results are broadly consistent with those in past studies. In a nutshell, monetary policy shocks have their largest effects on housing, business investment, and spending on consumer goods-in that order. The peak effect on GDP occurs after a year and half, and on employment, it takes two years. Of course, there are differences across models and times, as well as uncertainty bands around these results, but this captures the main findings of the paper.

I'll admit that given the clarity of the paper and the uncontroversial results, I was somewhat at a loss in terms of what value I could add as a discussant. Fortunately, a passage in the paper provided a way out of this dilemma. In describing the recent episode, the authors note that "while inflation expectations rose, they never became unmoored. Such stability of inflation expectations has a potentially important role in understanding why disinflation has not been accompanied by a slowdown in real activity." I couldn't agree more, and this passage led me to look more closely at inflation expectations and how monetary policy shocks affected these expectations.

In my remarks, I will broaden the scope of their analysis to cover the behavior of inflation expectations, including the effects that monetary policy has on them. There is a large literature on the effects of monetary policy on realized inflation, analyzed in Havranek and Rusnak's meta-analysis,[1] but inflation expectations have received less attention. I will consider questions around two issues: First, did inflation expectations behave differently during the past five years relative to the pre-pandemic period? And second, what are the effects of monetary policy shocks on inflation expectations, and how do they compare to the effects on real activity described in the paper?

Before I utter even one more word, I need to give the standard disclaimer that the views I express today are mine alone and do not necessarily reflect those of the Federal Open Market Committee or others in the Federal Reserve System.

A Decade of Expectations

To set the stage, I will briefly summarize the behavior of inflation and inflation expectations over the past decade. The dashed line in Figure 1 shows the 12-month percent change in the Consumer Price Index (CPI) from 2014 to January 2025. Prior to the pandemic, inflation was low and stable, fluctuating between 0 and 3 percent. But the post-pandemic experience over the past five years represented a sharp break. Inflation soared during 2021 and the first half of 2022, then quickly reversed most of that rise.

Short-run inflation expectations followed the pattern of the rise and fall of inflation, while movements in medium-term expectations were much more muted. The solid lines in Figure 1 show the medians of mean one-year-ahead and three-year-ahead inflation expectations taken from the New York Fed's Survey of Consumer Expectations (SCE). The SCE is a monthly, internet-based survey consisting of a 12-month, rotating representative panel of about 1,300 households.[2] The survey started in mid-2013, and questions regarding five-year-ahead inflation expectations were added in 2022. Due to that short sample length, I will mostly focus on the SCE's one- and three-year-ahead expectations.

A striking feature of these expectations is that they have fully returned to levels that prevailed between mid-2013 and mid-2016, before inflation expectations drifted downward during the extended low inflation experience prior to the pandemic. One-year-ahead expectations peaked around the same time as CPI inflation in mid-2022 and subsequently returned to their pre-pandemic range at the end of 2023. Three-year-ahead expectations peaked much earlier, in the fall of 2021, and returned to their pre-pandemic range in mid-2022.

Expectations and Surprises

The first question I examine is whether the behavior of inflation expectations over the past five years has differed from that before the pandemic, something my colleagues and I first examined in a Liberty Street Economics post in 2022.[3] As in that article, I will look at this question in two ways.

The first is the sensitivity of inflation expectations to "inflation surprises"-that is, the difference between what a survey respondent expected inflation to be and what it turned out to be. Athanasios Orphanides and I showed that this metric provides a useful summary statistic for the behavior of inflation expectations.[4]

This approach takes advantage of the rotating panel structure of the SCE. The inflation surprise is calculated as the difference between CPI inflation recorded in the last month of an individual respondent's participation in the survey and their one-year-ahead inflation expectation at the beginning of their tenure. The change in inflation expectations is calculated as the difference between a respondent's forecast of inflation between the start and the end of their time on the panel. Table 1 reports the estimated

slope coefficients from a regression of individual revisions in inflation expectations on their inflation surprises by subsample. The table also reports the estimated coefficient for the subsample for which we have five-year-ahead expectations.

These results yield two insights into the behavior of inflation expectations. First, the estimated effects of inflation surprises to revisions in inflation expectations are considerably larger at the one-year-ahead horizon than at longer horizons. Second, the estimated effects during the past five years are quite similar to those for the pre-pandemic period.

A second measure of how inflation expectations respond to a shock is the co-movement of revisions in expectations across different horizons. The upper panel of Table 2 reports the estimated coefficients of a regression of the six-month change in three-year-ahead expectations on the six-month change in one-year-ahead expectations based on the SCE for two subsamples. The middle panel shows the corresponding estimate for five-year-ahead expectations for the available data from 2022-2024. The lower panel shows corresponding results from the Michigan survey, which uses a subset of respondents each month who are re-interviewed six months later. The longer-run expectations question in the Michigan survey asks respondents about their expectations over the next five to 10 years.

No Signs of Unmooring

These results show the same pattern of smaller estimated coefficients with longer forecast horizons. Interestingly, they indicate that the co-movement between one-year-ahead and longer-term expectations over the past five years was somewhat lower than in the pre-pandemic period. This is consistent with the breakdown in the co-movements between the SCE's one- and three-year-ahead expectations shown in Figure 1. I should emphasize that based on these two metrics, there is no sign of inflation expectations becoming unmoored at any forecast horizon relative to the pre-pandemic period.

Taken together, these results suggest that respondents expect an inflation shock will gradually decay over the ensuing years. In particular, although inflation shocks are expected to have persistent effects on inflation, these effects are expected to largely dissipate after five years.

Monetary Policy Shocks and Inflation Expectations

Finally, I will present impulse response functions (IRFs) of inflation expectations to monetary policy shocks as a complement to the paper's analysis of IRFs for real activity. Figure 2 shows estimated IRFs for monetary policy shocks, using the same measures as in the paper.[5] The IRFs are scaled to reflect a one-percentage-point increase in the one-year yield on impact. The projections use monthly data from 2000 to 2024. Because the SCE did not begin until 2013, the IRFs are computed using data from the Michigan survey and the Blue Chip Economic forecasts for long-run expectations.

Three Findings

Three findings stand out from this analysis. First, in all cases, there is a lag of about eight months before the shock affects inflation expectations. This is surprising since inflation expectations are forward-looking and should move soon after a surprise. And it contrasts with evidence of an immediate partial response in real activity shown in the paper.

Second, the magnitude of the responses declines with the length of the forecast horizon. This is qualitatively in line with the evidence from the regressions that I reported earlier, suggesting that respondents expect the effects of shocks on future inflation to decline over time.

Third, long-run inflation expectations from the Blue Chip survey of forecasters are not sensitive to monetary policy shocks. This is consistent with other evidence indicating long-run inflation expectations have remained well anchored throughout this period.[6]

I will close by again emphasizing the clarity and concision of the paper. For me, it was instrumental in stimulating further investigations into the effects of monetary policy on inflation expectations.

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[1] Tomas Havranek and Marek Rusnak, 2013. "Transmission Lags of Monetary Policy: A Meta-Analysis," *International Journal of Central Banking*, December, 39-75.

[2] For more information on the SCE, see Olivier Armantier, Giorgio Topa, Wilbert van der Klaauw, and Basit Zafar, 2017. "An Overview of the Survey of Consumer Expectations," Federal Reserve Bank of New York *Economic Policy Review*, 23, no. 2, December, 51-72.

[3] Olivier Armantier, Leo Goldman, Gizem Koar, Giorgio Topa, Wilbert van der Klaauw, and John C. Williams, "What Are Consumers' Inflation Expectations Telling Us Today?," Federal Reserve Bank of New York *Liberty Street Economics*, February 14, 2022.

[4] Athanasios Orphanides and John C. Williams, 2005. "Inflation Scares and Forecast-Based Monetary Policy," *Review of Economic Dynamics,* 8, April, 498-527.

[5] The responses are calculated using local projections, in the spirit of Jorda, by regressing the indicated measure of inflation expectations on the monetary policy shock, a constant, two lags of the independent variable, and two lags of the Goldman Sachs U.S. Financial Conditions Index (FCI). The inclusion of the FCI is thus intended to control for other potential confounding factors in the projections. See Silvia Miranda-Agrippino and Giovanni Ricco, 2021. "The Transmission of Monetary Policy Shocks," *American Economic Journal: Macroeconomics*, July, 13, No. 3, 74-107, and Òscar Jordà, 2005. "Estimation and Inference of Impulse Responses by Local Projections," *American Economic Review*, 95, No. 1, March, 161-182.

[6] John C. Williams, A Steady Anchor in a Stormy Sea, remarks at SNB-FRB-BIS High-Level Conference on Global Risk, Uncertainty, and Volatility, Zurich, Switzerland, November 9, 2022.