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The People versus the Markets: A Parsimonious Model of Inflation Expectations

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"How are expectations of macroeconomic variables formed, and how should policy adapt to it? This paper adds a new perspective on this classic question. It measures a new object to study the formation of expectations, the discrepancy between market prices and people's expectations of long-run inflation at a business cycle frequency. It proposes a parsimonious model of subjective expectations and financial markets that is flexible enough to fit the US survey data and market data. It offers an application to the US data, measuring the underlying fundamental expected inflation, and relating it to different dimensions of disagreement across groups of people, and within them. Finally, it lays out the trade-off that policy faces when choosing whether to respond to the discrepancy.

The paper reaches a few conclusions. First, that the discrepancy in long-run inflation expectations has large business-cycle fluctuations, it is systematically related to monetary policy, and it is driven by disagreement across groups in the population as well as disagreement between the average and the marginal market traders. Second, that a combination of imperfect information, over-confidence, learning from experience, and sticky information, can explain the three first moments of the cross-sectional survey data on household long-run inflation expectations. Third, that the marginal trader in the US data was significantly bearish on inflation in 2014-2016, and this played large role in explaining the large negative discrepancy that arose during this time, as a consequence of this implied negative skew in traders' expectations. Fourth, after 2016, the clear reduction in the bias that generates a positive skew among households in the data lowered disagreement across households and traders, reducing the discrepancy while signaling a fall in fundamental expected inflation. Fifth, combining these two changes, long-run expected inflation has been trending down in the US since 2014 and is now around 1.8\% (with the incomplete Eurozone data suggesting it may be significantly lower there). Sixth, according to the model, determinacy of inflation requires monetary policy to respond more aggressively to inflation. Seventh, monetary policy in the model must trade off the size and importance of financial shocks versus natural rate shocks when choosing how much to respond to the discrepancy, and in doing so it may lead to either markets or people being the better forecaster."