Under Pressure? Central Bank Independence Meets Blockchain Prediction Markets

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Abstract

Employing data from Polymarket, a blockchain-based prediction market where users trade on Federal Reserve interest rate decisions and scenarios related to central bank independence, we construct a hawk-dove score for individual wallets and link user-level beliefs to monetary policy expectations. Users who believe that President Trump will fire Federal Reserve Chair Jerome Powell, and who therefore expect more intense political pressure on the central bank, hold more dovish views; they expect lower short-term interest rates than other users. These differences persist after controlling for individual wallet-level characteristics such as trading volume, profitability, and collateral use. Agents anticipating Powell's removal also anticipate higher long-term Treasury yields, concordant with concerns about reduced policy credibility and long-run inflation risk as pointed to by the literature on the time inconsistency of optimal policy. These findings suggest that political events shape expectations about future monetary policy, in this case through perceived threats to central bank independence.

JEL Codes: D72, D84, E52, E58, G14

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1 Introduction

> *Donald J. Trump: "This would be a PERFECT time for Fed Chairman Jerome Powell to cut Interest Rates . . . CUT INTEREST RATES, JEROME, AND STOP PLAYING POLITICS!"*[1]

A foundational principle of modern central banking is the independence of monetary authorities from political interference. A large literature suggests that central bank independence (CBI) enhances the credibility of monetary policy, reduces inflation bias, and mitigates the risk of time-inconsistent policy decisions (Kydland and Prescott, 1977; Barro and Gordon, 1983; Cukierman et al., 1992; Alesina and Summers, 1993; Cukierman, 1994).

While legal frameworks codify this autonomy, research suggests that de jure and de facto CBI are not the same. Binder (2021) documents that around 10% of central banks face political pressure in an average year, including many with high legal independence, and that such pressure is almost always directed toward loosening monetary policy. Some research suggests that this pressure can have implications for financial-market and monetary-policy outcomes. For example, Bianchi et al. (2023) show that political statements by President Donald Trump in 2018, specifically his tweets calling on the Federal Reserve to cut rates, were associated with declines in interest rate futures, suggesting that market participants revised their expectations in light of this pressure.

Trump's 2018 tweets were not isolated events. During his 2024 presidential campaign, Trump again called for lower interest rates and suggested he might remove Fed Chair Jerome Powell for his failure to ease monetary policy. Trump repeated statements to this effect in his second presidential term starting in January 2025, and asserted that dismissing the Fed chair was a presidential prerogative. As Trump put it in a handwritten note to Powell that he posted to his social media site Truth Social in June, *"You have cost the USA a fortune and continue to do so. You should lower that rate by a lot. Hundreds of billions of dollars are being lost."* Of the Federal Reserve Board, he wrote *"If they were doing their job properly, our Country would be saving Trillions of Dollars in Interest Cost. . . We*

[1] Donald J. Trump, Truth Social, posted April 4, 2025. Available at: `https://truthsocial.com/@realDonaldTrump/posts/114280322706682564`

should be paying 1 percent interest, or better".[2] Of Powell, Trump told reporters in the Oval Office in April, *"If I wanted him gone, believe me, he would be gone very quickly."*

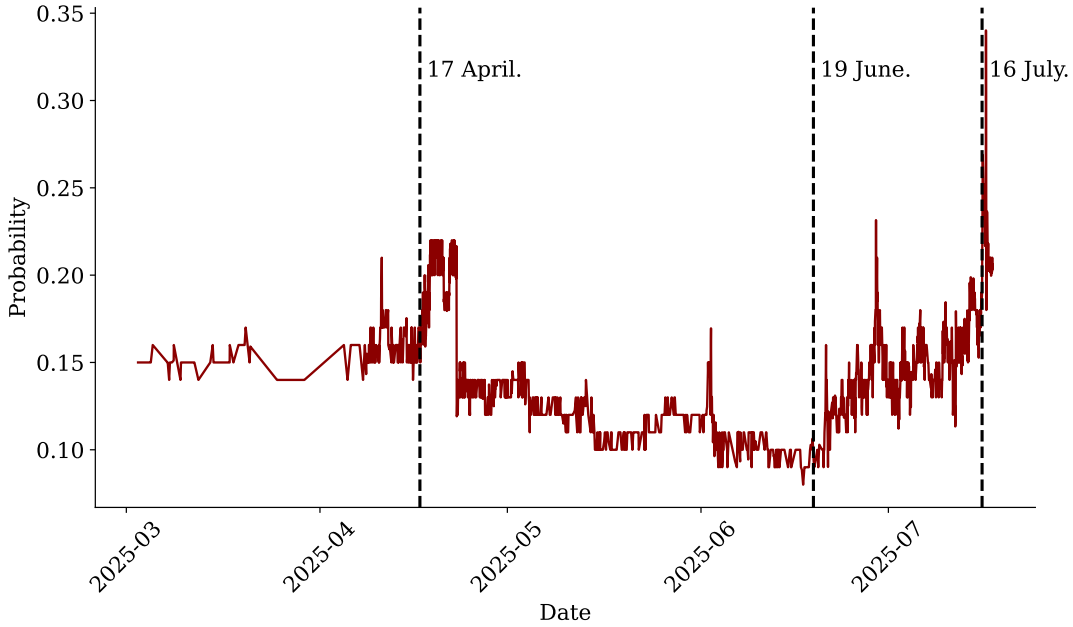
Understanding whether such threats shape beliefs in real time is important. The answer has implications for the credibility of monetary policy and for its macroeconomic impacts.

That said, measuring the influence of political pressure empirically is challenging. Standard approaches rely on aggregate data from financial markets and aggregate market expectations as captured by averages of survey responses. These approaches do not capture individual investor-level expectations, however, which can vary significantly across investors.

This paper therefore introduces a novel, market-based test of political pressure on the Federal Reserve in a context where individual expectations can be observed. We utilize high-frequency data from Polymarket, a decentralized blockchain prediction platform where users trade on Federal Reserve interest rate decisions and possible replacement of the Fed chair, among other outcomes. Since November 2024, Polymarket has hosted active markets for each scheduled Federal Open Market Committee (FOMC) meeting, allowing participants to bet on discrete outcomes such as a 25 basis point interest rate hike, interest rate cut, or hold (no change in the policy rate). Since January 2025, Policymarket has also hosted a market on 'Jerome Powell out as Fed chair in 2025.' Because all trades are executed through publicly visible wallet addresses, we can trace user positions across the two contracts. That is, we observe positions on both contracts for the same individual. This allows us to infer investor-level monetary policy expectations and also to test whether beliefs about CBI—measured via trading in a market on Powell's potential removal: the larger the bet on his removal, the less independent the Fed is expected to be—are systematically linked to expectations about future interest rates.

[2]Donald J. Trump, Truth Social, posted June 30, 2025. Available at: `https://truthsocial.com/@realDonaldTrump/posts/114773418889111055`

Figure 1: President Trump and Federal Reserve Independence



Notes. This figure plots the price of the "Yes" token in the market "Jerome Powell out as Fed Chair in 2025?". Key political events are annotated: on April 17, 2025, Trump stated, "Oh, he'll leave. If I ask him, he'll be out of there." [3] On June 19, 2025, Trump stated, "Too Late—Powell is the WORST. A real dummy, who's costing America Billions! ...Powell should cut rates or quit."[4] On July 16, 2025, Trump reportedly waved a draft letter firing Jerome H. Powell during a meeting in the Oval Office with House Republicans. [5]

Figure 1 plots the price of the "Yes" token in the Polymarket contract "Jerome Powell out as Fed Chair in 2025" and highlights key political events that elevated perceived threats to Federal Reserve independence, so measured. In April and June 2025, Trump repeatedly stated that Powell should resign or be removed, and in July 2025, he reportedly brandished a draft termination letter in a private meeting. These statements coincided with sharp movements in the Polymarket-implied probability of Powell's dismissal, suggesting that market participants were paying attention–that they updated their expectations in real time. This market-based signal of perceived political interference motivates our empirical strategy. We examine whether wallet-level beliefs about Powell's removal are associated with more dovish expectations for monetary policy, consistent with a belief that political pressure undermines CBI and thereby strengthens the low interest rate bias associated with time inconsistency.

Polymarket enables users to trade on the outcomes of scheduled Federal Reserve interest rate decisions, as noted, with each contract paying out based on the policy decision announced at the corresponding FOMC meeting. For each meeting, the price of the "Yes" token reflects the implied probability of a specific rate outcome—such as a 25 basis point cut. We show that these implied probabilities track those derived from CME Fed Funds futures, suggesting that Polymarket prices respond to macroeconomic news and aggregate policy expectations in a manner consistent with conventional benchmarks. This reassures us about the informativeness of these markets.

To analyze heterogeneity in monetary policy expectations, we develop a latent variable model that infers agent-level monetary policy stances from trading behavior in FOMC-related prediction markets. For each wallet and FOMC event, we observe net directional exposure to discrete interest rate outcomes and treat these positions as revealed beliefs. Building on the ideal point estimation framework of Clinton et al. (2004), we model the probability that an agent takes a position in a given market as a function of the alignment between their latent monetary policy stance, as represented by a continuous "hawk-dove" score, and the directional implication of the market. Sign constraints on market slopes insure consistent interpretation of rate changes across events. The model is estimated using Markov Chain Monte Carlo (MCMC) methods, yielding a cross-section of wallet-level belief scores that capture agents' expectations for tighter versus looser monetary policy. This structured approach enables us to classify investors along a monetary policy belief spectrum based on their observed trading behavior.

Our analysis is motivated by three important questions at the intersection of monetary policy, macroeconomic expectations, and threats to CBI. First, do investors who anticipate political interference with the Federal Reserve, such as the removal of Chair Powell, also expect looser monetary policy? Prior work utilizing aggregate data, cited above, suggests that perceived threats to CBI lower expected short-term interest rates (Bianchi et al., 2023; Binder, 2021). Recognizing that agents and their expectations can be heterogeneous, we reexamine the impact of such threats on expectations at the individual agent/wallet level.

Second, do investor expectations about future interest rates respond to macroeconomic fundamentals, as would be predicted when central banks are known to follow monetary policy rules, such as the Taylor rule (Taylor, 1993; Carvalho and Nechio, 2014)? Specifically, do low inflation expectations and the prospect of recession or weak growth, which are typically associated with lower interest rates under such rules, correspond to more dovish expectations regarding future rates? We examine the relationship between expectations about these macroeconomic fundamentals, which are also observable through Polymarket, and corresponding interest rate forecasts, again at the individual agent (wallet) level.

Third, are beliefs about CBI linked to longer-run macroeconomic expectations, including expectations about long-term inflation and long-term interest rates? Models of time-inconsistent policy (Kydland and Prescott, 1977; Barro and Gordon, 1983) predict that political pressure for stimulus leads to higher long-run inflation and elevated long-term nominal yields, since such pressure reintroduces the time-inconsistency problem. They imply that investors will form expectations of such long run effects. We test for the existence of these expectations using individual agent/wallet data from Polymarket.

As noted, our key innovation is the ability to track trading behavior across markets using wallet-level identifiers. Specifically, we match users in the Polymarket contract on whether Donald Trump will remove Fed Chair Jerome Powell in 2025 to their positions in FOMC interest rate markets. We find that agents who bet on Powell's dismissal consistently exhibit more dovish stance scores (they expect lower short-term interest rates). This pattern holds after controlling for wallet-level characteristics such as trading volume, collateral use, and profitability. The results indicate a systematic difference in expected policy stance between users who anticipate Powell's removal and those who do not.

We then turn to whether expectations reflect macroeconomic fundamentals. We begin by analyzing beliefs about inflation. Using Polymarket contracts on monthly CPI outcomes, we test whether investors who expect lower inflation also expect looser monetary policy, consistent with Taylor-rule logic. The evidence is consistent with this hypothesis: agents forecasting low inflation consistently hold more dovish monetary policy views, a

pattern that is especially evident around the March and June 2025 FOMC meetings. Interestingly, however, agents expecting high inflation do not exhibit significantly more hawkish stance scores, suggesting asymmetric pricing of inflation risk. These results confirm that inflation expectations are an important driver of monetary policy beliefs, consistent with survey-based evidence in Carvalho and Nechio (2014). They are also consistent with significant heterogeneity in the behavior of different agents.

Using recession risk as a proxy for weak macroeconomic conditions, we find little difference in monetary policy expectations between agents betting on or against recession. However, following the April 2025 "Liberation Day" tariffs, sophisticated agents who revised their recession forecasts upward also shifted toward more dovish policy expectations. This is consistent with Taylor-rule logic. The between-agent variation suggests that informed agents are especially responsive to macroeconomic news.

Finally, we show that beliefs about Powell's potential removal are associated with higher long-term Treasury yields and greater perceived recession risk. These results are consistent with concerns that threats to central bank independence reduce monetary policy credibility and increase perceived macroeconomic instability. While agents who expect Powell to be dismissed anticipate lower short-term interest rates, they simultaneously price in higher long-term yields and greater downside risk. Inflation expectations also vary across belief groups—those who do not expect Powell's removal are more likely to assign probability to lower inflation outcomes, whereas agents who anticipate his dismissal are less likely to price downside inflation risk. This suggests that political interference is seen not only as a source of short-run stimulus, but also as a trigger for long-run uncertainty.

Related Literature. This paper contributes to five strands of literature. First, we speak to the literature on the theory and empirical measurement of central bank independence. Theoretically, CBI is seen as addressing the time-inconsistency problem of monetary policy: that central banks may be tempted to deviate from earlier policy announcements in order to exploit short-run trade-offs between inflation and output, resulting in higher inflation expectations in equilibrium (Kydland and Prescott, 1977; Barro and Gordon, 1983). A solution to this time-inconsistency problem is the institutional design of an

independent central bank committed to a low inflation target.

Recent work uses structural models to quantify the extent of this problem and its corresponding solution. For example, Debortoli and Lakdawala (2016) estimate that the Federal Reserve operates under a regime of loose commitment, in which policy plans are partially revised to stimulate the economy in the short run. Lakdawala and Wu (2017) show that the credibility of monetary policy influences the term structure of interest rates, with lower credibility associated with greater yield curve curvature due to a rise in medium-term rates.

A related literature examines how legal frameworks and institutional arrangements influence central bank behavior. Early work developed measures of de jure CBI and showed that independence was associated with lower and more stable inflation but little if any increase in output and unemployment volatility (Cukierman et al., 1992; Alesina and Summers, 1993). More recent contributions document rising trends in *de jure* independence over time (Cukierman, 1994; Eijffinger and Geraats, 2006; Walsh, 2008; Dincer and Eichengreen, 2018; Dincer et al., 2024; Romelli, 2022, 2024; Jung et al., 2025). But whereas the institutional indices utilized in most of this research capture formal, de jure independence, a growing literature emphasizes that de jure and de facto independence are not the same – that political influence remains a persistent factor in central bank decision making in practice (Binder, 2021; Bianchi et al., 2023; Drechsel, 2024; Pagliuca, 2025). Examples include research on the influence of presidential communication with Federal Reserve officials, such as the Nixon–Burns interaction in the early 1970s analyzed by Drechsel (2024), and studies on political alignment between members of the FOMC and the incumbent U.S. president, as proxied by campaign donations in Pagliuca (2025).

Within this literature, our paper is closest to Bianchi et al. (2023), who show that public criticism of the Federal Reserve by President Trump in 2018–2019 coincided with significant movements in interest rate futures, suggesting that market participants updated their expectations of policy in response to perceived political pressure. Our paper contributes by developing a market-based, investor-level measure of beliefs about political interference in the Fed. We show that expectations of increased political threats to Federal

Reserve independence are associated with more dovish interest rate beliefs.

A second strand of literature studies FOMC voting decisions through the lens of hawk–dove preferences and the economic forecasts of committee members. Researchers use both historical voting records and external perceptions based on public communication to classify the policy stances of central bank board members (Eijffinger et al., 2018; Istrefi, 2019; Bordo and Istrefi, 2023). These approaches typically apply roll-call scaling models originally developed for political science (Clinton et al., 2004), which are used here to identify fixed and time-varying monetary preferences. Recent work shows that heterogeneity is important in this context. For example, individual experiences with inflation predict more hawkish positions (Malmendier et al., 2021), while dissent patterns and forecasts also help to reveal underlying views (Filippou et al., 2023; Burghartz, 2025; Bobrov et al., 2025). Our paper adapts this framework to a new setting by applying similar ideal point estimation techniques to individual investor behavior on Polymarket. This source enables us to construct a belief-based classification of monetary policy expectations outside formal institutions such as the FOMC, on which previous work has focused.

Third is the literature exploring whether expectations about monetary policy reflect underlying macroeconomic fundamentals. A prominent benchmark is the Taylor rule, which prescribes that interest rates should respond predictably to changes in inflation and output (Taylor, 1993, 2012; Lakdawala, 2016). Taylor (2013) argues that the shift toward rule-based policymaking in the mid-1980s contributed to greater macroeconomic stability, and that central bank independence is most effective when paired with a systematic policy framework. Lakdawala (2016) provides complementary evidence that, during the Volcker era, structurally estimated Taylor rules placed greater weight on inflation, indicating a regime shift in the Fed's responsiveness to inflation and the output gap. At the household level, Carvalho and Nechio (2014) examine whether survey-based expectations respond to inflation and unemployment in a manner consistent with the Taylor rule. They find that the expectations of non-expert households co-move with macroeconomic indicators, suggesting that policy rules may be internalized through simple heuristics. Our analysis extends this logic to decentralized prediction markets, testing whether investor-level

interest rate forecasts on Polymarket systematically reflect beliefs about these types of macroeconomic variables and whether decentralized traders behave in line with Taylor-type principles.

Fourth, we build on a growing literature documenting heterogeneity in household and investor macroeconomic expectations. A number of studies use survey data to show that political affiliations systematically influence beliefs about inflation, unemployment, and economic growth (Coibion et al., 2020; Mian et al., 2023; Binder et al., 2024; DiGiuseppe et al., 2025; Kay et al., 2025). For example, Coibion et al. (2020) find that U.S. households aligned with the incumbent party report more optimistic expectations about the economy. Binder et al. (2024) and DiGiuseppe et al. (2025) document that Trump supporters reported higher inflation expectations under Biden and lower expectations following Trump's 2024 victory. Kay et al. (2025) link forecaster optimism in *Wall Street Journal* surveys to political affiliation, finding that Republican-leaning economists are more optimistic under Republican presidents. Our results are consistent with this literature. But they focus specifically on monetary policy expectations. They show that partisan differences may arise not only from divergent macroeconomic forecasts but also from beliefs about institutional constraints on central banks.

Finally, our paper contributes to the small but growing literature using decentralized prediction markets to study investor beliefs. These platforms offer transparent, high-frequency, financial-incentivized real-time belief measures at the individual level. Recent work leverages data from platforms such as Polymarket to measure beliefs regarding political, macroeconomic, and financial outcomes (Chernov et al., 2025; Ng et al., 2025; Chen et al., 2025). For example, Ng et al. (2025) show that Polymarket prices outperformed polls in predicting outcomes during the 2024 U.S. election. Another example is Chen et al. (2025), who use Polymarket to examine partisan differences in election expectations. Our contribution in this context is twofold. First, we construct wallet-level "hawk-dove" scores from FOMC rate markets using a latent variable model. Second, we link these scores to beliefs about Fed independence by using trading behavior on the Powell-dismissal contract. This setting provides a novel test of political pressure on the Fed, enabled by

the granularity and transparency of blockchain-based prediction markets.

Roadmap. Section 2 outlines the institutional setting, describes the data, and explains the construction of our investor-stance scores. Section 3 presents the main hypotheses on the role of CBI and macroeconomic fundamentals in shaping monetary policy expectations. Section 4 reports the empirical results, linking beliefs about CBI to monetary policy. Section 5 concludes.

2 Institutional Details and Data

We divide this part into three sections. In Section 2.1, we provide an overview of the key institutional details of Polymarket, including the main features of its trading mechanism. In Section 2.2, we describe how we obtain data from both Polymarket and the CME. In Section 2.3, we compare the FOMC decision probabilities implied by Polymarket with those derived from CME 30-day Federal Funds futures and find that the two markets closely track each other.

2.1 Polymarket

Polymarket is the largest decentralized prediction market platform, enabling participants to speculate on real-world event outcomes using cryptocurrency. Traders deposit USDC via the Polygon blockchain network to engage in trading. As of June 2025, Polymarket recorded a monthly trading volume of $1.17 billion, with peak activity reaching $2.4 billion during the 2024 U.S. presidential election.[6]

To organize trading around specific forecasts, Polymarket structures its platform around two key elements: **events** and **markets**. An **event** on Polymarket refers to a real-world occurrence subject to speculation—such as the 2024 U.S. presidential election or the March 2025 Federal Open Market Committee (FOMC) meeting. A **market** corresponds to a specific binary outcome within that event, where traders buy or sell "Yes" or "No" tokens whose payoffs depend on the realization of the outcome. For instance, the March

[6] `https://defillama.com/protocol/dexs/polymarket`

2025 FOMC event includes a market on whether the Federal Reserve will reduce the federal funds target rate by 25 basis points, and another on whether the rate will remain unchanged. A single event can comprise multiple markets, each representing a mutually exclusive outcome.

Trading mechanism. Markets on Polymarket are structured as binary options, offering "Yes" and "No" outcome tokens. Each pair of "Yes" and "No" tokens is fully collateralized by 1 unit of USDC, and token prices are denominated in USDC, always lying between 0 and 1. Traders can buy or sell individual tokens, or mint a pair of one "Yes" and one "No" token by depositing 1 unit of USDC. At any time, one unit of "Yes" and one unit of "No" can be redeemed jointly for 1 unit of USDC.

Letting P_{Yes} and P_{No} denote the current prices of the two tokens (in USDC), they satisfy the identity:

$$P_{\text{Yes}} + P_{\text{No}} = 1.$$

These prices are determined by the most recent trades or standing limit orders and reflect traders' perceived probabilities of the underlying event. Upon market resolution, the token corresponding to the correct outcome pays out 1 unit of USDC per token, while the other becomes worthless.[7]

For further details on Polymarket's trading mechanisms, including the implementation of binary markets through the Conditional Tokens Framework (CTF), order matching via the off-chain operator, and examples of transaction-level mint and merge operations, see Appendix A.

[7] USDC is a fiat-backed stablecoin pegged 1:1 to the U.S. dollar. It operates on the blockchain and is primarily used to reduce frictions when trading crypto assets. USDC is issued by Circle, a centralized entity, and is backed by reserves held with multiple custodians. These reserves are typically held in cash or cash equivalents, such as U.S. Treasuries and FDIC-insured bank deposits. For more details on Circle's reserve composition and disclosures, see `https://www.circle.com/transparency`.

2.2 Data

Subgraph API. We rely on data from Subgraph API to trace the transactions on Polymarket and obtain account-level information.[8]

Each transaction in any given Polymarket market is fully traceable via the Subgraph API. For every trade, we observe the transaction price (denominated in USDC), trade size (in USDC), timestamp, and the identities of both counterparties (buyer and seller IDs).[9] For all traders on Polymarket, we obtain trader-specific information on their trading volume, trading profit, and the number of markets they have bet on.

CME 30-Day Federal Funds Futures. We use high-frequency data on CME 30-Day Federal Funds Rate futures from Databento, sampled at 5-minute intervals from October 2024 to June 2025. These contracts are settled based on the average effective federal funds rate for a given calendar month and are widely used to infer market expectations about monetary policy decisions. We use these prices to construct implied probabilities of target rate changes at upcoming FOMC meetings, which serve as a benchmark for comparison with investor expectations on Polymarket.

Markets and Events. Table 1 lists the Polymarket prediction markets used in our analysis. We group these into three categories: Federal Reserve independence, macroeconomic fundamentals, and FOMC policy decisions.

The central market used to proxy beliefs about political pressure is the binary contract "Jerome Powell out as Fed Chair in 2025?" A long position pays 1 USDC if Powell is removed or resigns before the end of 2025. We interpret this as reflecting an investor's belief that Federal Reserve independence may be compromised.

To capture macroeconomic fundamentals, we use five markets covering recession, inflation, and long-term interest rates. Recession risk is measured using the "U.S. recession in 2025?" binary contract, which pays 1 USDC if either the NBER declares a recession

[8] Available at `https://docs.polymarket.com/developers/subgraph/overview`.

[9] Subgraph records each transaction twice. In one of these records, the taker ID corresponds to the wallet ID of the CTF Exchange contract. To avoid double counting, we drop the records for which the taker id is the CTF Exchange contract wallet id (0xc5d563a36ae78145c45a50134d48a1215220f80a).

in 2025 or if real GDP contracts in two consecutive quarters. Long-term interest rate expectations are captured by the categorical market "How high will 10-year Treasury yield go in 2025?", which pays 1 USDC if yields meet or exceed specified thresholds. Inflation expectations are proxied through several categorical markets on year-on-year CPI outcomes. The "How high will inflation get in 2025?" market pays 1 USDC if the maximum CPI print observed in any month of 2025 reaches or exceeds the listed value. We supplement this with month-specific markets on February, April, and May inflation, each structured to pay 1 USDC if CPI exceeds the stated threshold for the corresponding month. These markets allow us to align inflation expectations with the timing of FOMC decisions.

Monetary policy expectations are extracted from categorical markets on FOMC rate decisions in March, May, and June 2025. Each contract offers outcome-specific tokens such as "Hold," "+25bps," or "-25bps," with payoffs of 1 USDC per winning outcome based on the actual policy decision announced at the corresponding FOMC meeting. We use wallet-level positions in these contracts to estimate investor-specific monetary policy stance scores.

Market Liquidity. The final column of Table 1 reports total trading volume as a proxy for market liquidity. Liquidity varies substantially across contracts, with FOMC markets consistently attracting the highest participation. For example, the March, May, and June 2025 FOMC markets each saw trading volumes exceeding $75 million, with the January 2025 contract surpassing $190 million. This depth reflects the salience of interest rate decisions and the relatively short time horizon to contract resolution.

In contrast, macroeconomic outcome markets tend to exhibit lower liquidity. The recession risk market reached $8 million in volume, while inflation-related markets ranged from $0.6 to $1 million depending on the month and framing. The long-term Treasury yield market was moderately active, with $1 million in total volume. The Powell dismissal market, used to measure beliefs about political pressure, was among the more liquid non-FOMC contracts, with trading volume around $6 million. Overall, these figures suggest that while macroeconomic markets are less liquid than FOMC contracts, they

still provide meaningful cross-sectional variation in expectations for our analysis.

These liquidity patterns are mirrored in participation rates and trading behavior. Appendix B, Table B.1, shows that FOMC markets attract large numbers of unique agents. For example, over 21,000 agents participated in the January 2025 *+25bps* market. Net positions in these markets, measured in USDC, also exhibit wide dispersion, with standard deviations exceeding 14,000 in some cases, reflecting substantial heterogeneity in beliefs and trading intensity.

2.3 Polymarket and CME Implied FOMC Probability

FOMC markets are among the most liquid on Polymarket. For example, the March 2025 contract attracted over 27,000 unique users and generated $78 million in cumulative trading volume. These contracts allow traders to bet on discrete FOMC outcomes, such as interest rate hikes, cuts, or no change. For the March 2025 meeting, Polymarket hosted four separate binary markets: (i) a 25 basis point increase, (ii) no change, (iii) a 25 basis point decrease, and (iv) a 50 basis point decrease. Each market offers "Yes" and "No" tokens that pay 1 USDC if the specified outcome occurs.

To assess the informational content of Polymarket, we compare its implied probabilities with benchmark estimates derived from CME futures. Specifically, we construct intraday FOMC meeting probabilities at five-minute intervals using CME 30-Day Federal Funds Rate futures, following the methodology of the CME FedWatch Tool.[10] While the official FedWatch Tool reports only daily updates, our implementation uses high-frequency price data from Databento to generate a real-time benchmark.

Figure 2 plots the Polymarket-implied probabilities for each of the four outcomes, based on the price of the corresponding "Yes" tokens, alongside the CME futures-implied probabilities aggregated to match the same outcome categories. The two series exhibit close co-movement throughout the sample period, suggesting that Polymarket reflects similar interest rate expectations as the traditional futures market. Notably, Polymarket-implied probabilities appear less noisy at high frequencies, potentially due to differences

[10] A detailed description of the implementation is provided in Appendix C.

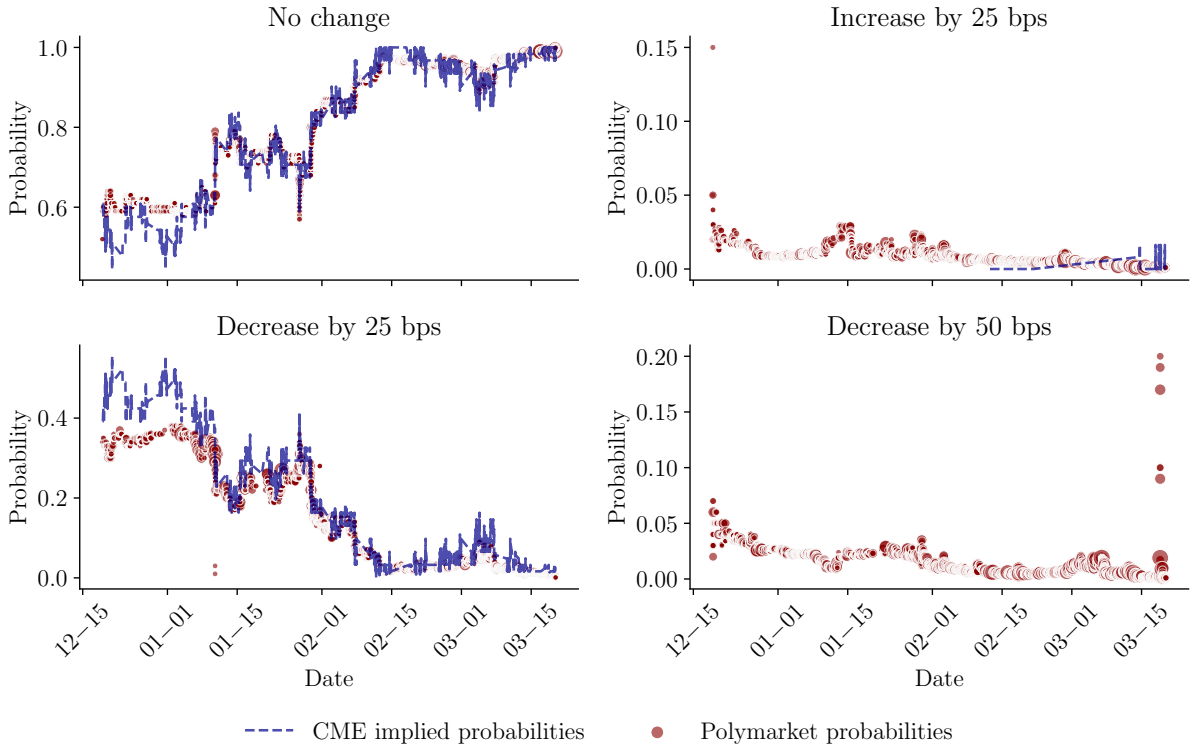
Table 1: Polymarket Events and Market Details

	Event	URL	Payout Structure	Volume
Federal Reserve Independence	Jerome Powell out as Fed Chair in 2025?	Link	Binary: \$1 per "Yes" token if Jerome Powell ceases to be the Chair of the U.S. Federal Reserve before 2026.	\$6 million
Macroeconomic Fundamentals	Will the U.S. enter a recession in 2025?	Link	Binary: \$1 per "Yes" token if NBER declares a recession in 2025 or the seasonally adjusted annualized percent change in quarterly U.S. real GDP from the previous quarter is less than 0.0 for two consecutive quarters between Q4 2024 and Q4 2025.	\$8 million
	How high will 10-year Treasury yield go in 2025?	Link	Categorical: \$1 if the Treasury 10-year yield reaches or is higher than the listed value in 2025.	\$1 million
	How high will inflation get in 2025?	Link	Categorical: \$1 per "Yes" token if BLS reports any month in 2025 with YoY CPI reaches or is higher than the listed value.	\$0.8 million
	February Inflation - Annual	Link	Categorical: \$1 per "Yes" token if BLS reports any month in 2025 with YoY CPI reaches or is higher than the listed value in February 2025.	\$0.6 million
	April Inflation - Annual	Link	Categorical: \$1 per "Yes" token if BLS reports any month in 2025 with YoY CPI reaches or is higher than the listed value in April 2025.	\$1 million
	May Inflation - Annual	Link	Categorical: \$1 per "Yes" token if BLS reports any month in 2025 with YoY CPI reaches or is higher than the listed value in May 2025.	\$0.8 million
FOMC	Fed decision in November 2024?	Link	Categorical: Multiple tokens (e.g., "No Change", "+25bps", "-25bps", "-50bps"), \$1 payout per winning outcome.	\$190 million
	Fed decision in December 2024?	Link	Categorical: Same format, with pay-out based on December 2024 FOMC outcome.	\$59 million
	Fed decision in January 2025?	Link	Categorical: Same format, with pay-out based on January 2025 FOMC outcome.	\$191 million
	Fed decision in March 2025?	Link	Categorical: Same format, with pay-out based on March 2025 FOMC outcome.	\$78 million
	Fed decision in May 2025?	Link	Categorical: Same format, with pay-out based on May 2025 FOMC outcome.	\$88 million
	Fed decision in June 2025?	Link	Categorical: Same format, with pay-out based on June 2025 FOMC outcome.	\$107 million

Note: Table reports prediction markets on Polymarket used in our analysis. Events cover monetary policy, macroeconomic indicators, and politically salient outcomes. All markets resolve based on publicly verifiable sources such as the Federal Reserve, BLS, and U.S. Treasury. URLs link to corresponding Polymarket event pages. Volume is the total trading volume.

in trading mechanisms, liquidity, or trader composition between the two platforms.

Figure 2: CME and Polymarket Implied FOMC probabilities: March 2025 meeting



Notes. The plot shows the CME 30-day federal funds futures–implied FOMC probabilities and the corresponding Polymarket probabilities for the March 2025 meeting. The CME-implied probabilities are calculated following the methodology in Appendix C, using 5-minute frequency 30-day federal funds rate futures data. The Polymarket probability is the price of the 'Yes' token in the respective market. Each dark red dot represents a 'Yes' token transaction, with the dot size proportional to the transaction size.

2.4 Monetary Policy Hawk-Dove Scores

We develop a latent variable model to infer monetary policy preferences from agent-level trading behavior in FOMC-related prediction markets on Polymarket. We treat agents' net positions in markets tied to specific interest rate outcomes as revealed beliefs. The core assumption is that an agent's likelihood of taking a position in a given market depends on the alignment between their latent monetary policy stance—captured by a hawk-dove score—and the directional implication of the market. The model follows the framework of Clinton et al. (2004), which uses roll-call voting behavior to infer legislators' latent

policy preferences. This approach has also been applied to study FOMC committee voting behavior in Eijffinger et al. (2018). In our parsimonious setup, an agent's probability of betting in a given FOMC market depends jointly on agent-specific ideological traits and market-specific parameters. By imposing sign constraints on market slopes, we ensure consistent ideological interpretation across FOMC events. This approach allows us to extract heterogeneous monetary policy stances from trading data in a structured and interpretable way.

A FOMC event, e.g. March 2025 FOMC meeting, contains multiple markets such as '25-bps rate increase' or '50-bps rate decrease', allowing agents to bet and the future FOMC decisions and express expectations about interest rate changes. For each market under a FOMC event, we first calculate the net positions for every agents by aggregating their purchases and sales of 'Yes' and 'No' tokens. To avoid capturing position unwinding around event resolution, trading data are truncated one day prior to the FOMC meeting date. Using the net position data, we construct an agent-by-market matrix $\{y_{ij}\}$ that reflects each participant's net exposure to policy outcomes for a FOMC event.

Latent variable model. For each agent i and FOMC market j, we define a latent utility function

$$U_{ij} = \alpha_j + \beta_j x_i \tag{1}$$

x_i is a latent variable representing agent i's hawk-dove score, α_j is an intercept for market j, and β_j is a slope coefficient capturing the ideological loading of market j.

We do not observe this latent utility directly. Instead, we observe a binary indicator:

$$y_{ij} = \begin{cases} 1, & \text{if agent } i \text{ holds a net positive position in market } j \\ 0, & \text{otherwise} \end{cases} \tag{2}$$

We model the probability that agent i takes a net positive position in market j as a sigmoid-transformed latent utility:

$$\Pr(y_{ij} = 1) = \sigma(U_{ij}) = \frac{1}{1 + e^{-(\alpha_j + \beta_j x_i)}} \tag{3}$$

The likelihood of the observed y_{ij} is $y_{ij} \sim \text{Bernoulli}(\Pr(y_{ij} = 1))$.

This equation directly corresponds to the logit form:

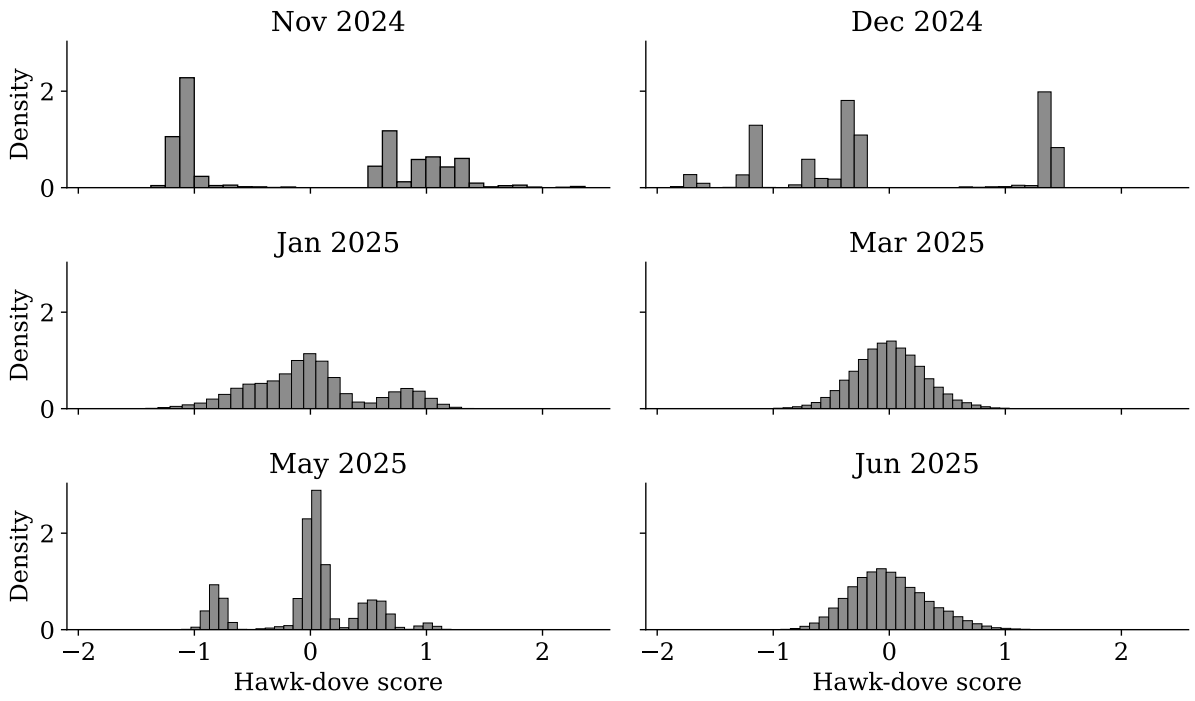
$$\text{logit}(\Pr(y_{ij} = 1)) = \alpha_j + \beta_j x_i \tag{4}$$

The slope parameter β_j captures whether a market is hawkish ($\beta_j < 0$) or dovish ($\beta_j > 0$). Each agent reveals their monetary policy stance through their choice of markets in which they hold a positive net positions. The agent's latent score x_i is then estimated to maximize the joint likelihood of their observed binary decisions across all markets.

The estimation of the agent-level latent variable x_i, market-level loadings β_j, and intercept α_j is carried out using Markov Chain Monte Carlo (MCMC). We place a mixture-of-Gaussians prior on x_i to capture potential ideological clustering among agents—such as hawks, doves, and moderates—thereby allowing for flexible heterogeneity in belief distributions. The market-specific intercepts α_j and slope parameters β_j are given standard normal priors.[11] We impose sign constraints on β_j to maintain consistent ideological interpretation across FOMC events: markets predicting rate cuts are constrained to have $\beta_j > 0$, while those predicting rate hikes are constrained to have $\beta_j < 0$.

[11]The prior for each agent's x_i is specified as a finite mixture of three normal distributions: $\mathcal{N}(-1, 1)$, $\mathcal{N}(1, 1)$, and $\mathcal{N}(0, 1)$, with mixture weights $[0.3, 0.3, 0.4]$. This flexible prior captures the possibility of ideological clustering into dovish, hawkish, and centrist groups. The market intercepts α_j are assigned standard normal priors: $\alpha_j \sim \mathcal{N}(0, 1)$. Similarly, the unconstrained slope parameters β_j are drawn from $\beta_j \sim \mathcal{N}(0, 1)$. Specifying informative priors helps improve estimation efficiency, though results are robust to alternative specifications.

Figure 3: Hawk-dove Score.



Notes. The plot shows the distribution of hawk-dove scores for the November 2024, December 2024, January 2025, March 2025, May 2025, and June 2025 FOMC meeting, respectively. A positive hawk-dove score indicates a dovish stance, while a negative score indicates a hawkish stance.

Monetary Policy Stance. The latent variable model allows us to estimate the monetary policy stance of agents who participate in FOMC-related markets. This estimation is based solely on trading behavior in the FOMC markets and does not incorporate any information from agents' activity in other markets, such as those related to CBI or inflation. This framework enables us to later test the underlying channels that shape agents' monetary policy preferences.

Figure 3 shows the distribution of estimated hawk-dove scores across six FOMC meetings from November 2024 to June 2025. The hawk-dove score reflects agents' monetary policy preferences, with higher scores indicating a more dovish stance and lower scores reflecting a more hawkish stance. The shape of the distributions vary considerably over time, with earlier meetings (e.g., Nov–Dec 2024) showing more polarized views while later meetings (e.g., Mar–Jun 2025) exhibit more even distributions.

Table 2: Summary Statistics

	Panel A: Polymarket Agent Summary Statistics							
	N	mean	SD	1%	25%	50%	75%	99%
volume	209132	7.84	2.29	0.68	6.84	7.96	9.41	12.88
profit	209132	-10061.64	533532.79	-37043.93	-136.40	-26.09	-8.30	649.91
# markets	209132	15.70	20.79	1.00	4.00	10.00	18.00	100.00
	Panel B: Monetary Policy Stance							
	N	mean	SD	1%	25%	50%	75%	99%
November 2024	15823	0.01	1.05	-1.23	-1.08	0.60	0.98	1.79
December 2024	16705	-0.00	1.04	-1.71	-0.68	-0.31	1.35	1.44
January 2025	39643	0.00	0.51	-1.08	-0.34	-0.03	0.23	1.12
March 2025	27201	-0.00	0.30	-0.69	-0.20	-0.00	0.19	0.72
May 2025	16849	-0.00	0.45	-0.92	-0.06	0.03	0.15	1.02
June 2025	22451	0.00	0.33	-0.67	-0.23	-0.03	0.21	0.84

Notes. Panel A reports the summary statistics for Polymarket agents. We report the number of agents (*N*), the average (*mean*), standard deviation (*SD*), and percentiles of agents' total collateral volume on Polymarket (*volume*), agent's total profit (*profit*), and the number of markets the agent has bet on (*# markets*). Panel B reports summary statistics for agents' monetary policy stance, measured using the hawk-dove score, for the November 2024, December 2024, January 2025, March 2025, May 2025, and June 2025 FOMC meeting, respectively. In the main analysis, we use the hawk-dove percentile as the primary measure of monetary policy stance. The hawk-dove percentile rescales the raw hawk-dove score to a percentile scale ranging from -50 to 50, where -50 corresponds to the most hawkish 1st percentile and 50 to the most dovish 99th percentile based on the distribution of hawk-dove scores.

Panel A of Table 2 summarizes key characteristics of agents trading on Polymarket. On average, agents participate in approximately 16 markets, with significant heterogeneity across the sample. The median agent stakes collateral equivalent to roughly 8 log-units, and average profitability is close to zero, though the distribution exhibits large dispersion. These statistics highlight both the breadth of market participation and the diversity of trading outcomes among Polymarket users, motivating our focus on wallet-level heterogeneity in beliefs and behavior.

Panel B of Table 2 reports summary statistics for agents' raw hawk and dove scores. The interpretation of these raw scores depends on the FOMC meeting–specific slope parameters β_j. Therefore, in the subsequent analysis, we rescale the hawk-dove scores to a percentile scale ranging from -50 to 50, where -50 corresponds to the most hawkish 1st percentile and 50 to the most dovish 99th percentile, based on the distribution of scores for each FOMC event. This normalization enables consistent comparisons across different

FOMC meetings, regardless of shifts in the underlying distribution over time.

3 Research Hypotheses

3.1 Monetary Policy Expectations and CBI

CBI is widely viewed as essential for ensuring credible and effective monetary policy. The literature typically distinguishes between two dimensions of CBI: *goal independence*, where a central bank sets its own objectives, and *instrument independence*, where it retains autonomy over the tools used to achieve mandated goals such as price stability (Walsh, 2008). In the case of the Federal Reserve, only instrument independence applies—Congress mandates the Fed's dual objective of maximum employment and stable prices, but leaves rate-setting and other policy tools at the discretion of the Federal Open Market Committee.

Political pressure on central banks, even those with strong legal independence, has been shown to result in looser monetary policy (Binder, 2021). Historical studies of the Federal Reserve suggest that its independence was compromised during the Nixon–Burns era (Drechsel, 2024), and that political alignment, as proxied by campaign donations, can influence the voting behavior of FOMC committee members. Complementary recent work by Bianchi et al. (2023) shows that political statements by President Trump during his first term, particularly tweets urging the Federal Reserve to cut rates, were associated with immediate declines in interest rate futures. This suggests that market participants revised monetary policy expectations in real time in response to perceived political pressure, interpreting these statements as credible threats to the Fed's instrument independence.

Recent statements by Donald Trump during his 2025 presidential campaign have renewed concerns about political interference in monetary policy. On multiple occasions, Trump used the Truth Social platform to criticize Fed Chair Jerome Powell and publicly called for lower interest rates. In one post, he wrote: *"This would be a PERFECT time for Fed Chairman Jerome Powell to cut Interest Rates . . . CUT INTEREST RATES, JEROME, AND STOP PLAYING POLITICS!"*[12]

[12]Donald J. Trump, Truth Social, April 4, 2025. Available at: `https://truthsocial.com/@realD`

These posts echo prior episodes from Trump's first term and have prompted renewed speculation that, following his re-election, he may seek to remove Powell or replace him with a more compliant successor. According to the *Financial Times*, the Trump campaign has raised the possibility of dismissing Powell "for cause"—citing cost overruns in a Fed building renovation project—or demoting him in favor of a governor more amenable to rate cuts.[13] Although institutional constraints may ultimately limit executive action, these developments suggest that markets could rationally revise their expectations toward more accommodative monetary policy in response to perceived threats to CBI.

In response, Chair Powell has sought to reaffirm the Federal Reserve's autonomy. Following a White House meeting in May 2025, the Fed issued a formal statement emphasizing that "the path of policy will depend entirely on incoming economic information" and that decisions will be made "solely on careful, objective, and non-political analysis."[14] This statement reflects the principle of instrument independence—where the Fed retains discretion over how to achieve its legally mandated goals of maximum employment and stable prices—despite political cycles. Nonetheless, investors may still perceive a risk that political interference could alter policy outcomes, either through direct pressure or anticipated changes in leadership.

In light of this evidence, we investigate whether investors who believe that Trump will remove Powell during the current campaign also forecast looser monetary policy. The hypothesis is that agents who take a net long position in the "Jerome Powell out in 2025" Polymarket contract expect greater political interference and hence anticipate lower interest rates. Mechanically, this link may arise from beliefs that the Fed will face pressure to stimulate the economy in the short run, or that a replacement Chair would adopt a more dovish stance. This interpretation is consistent with the time-inconsistency problem in monetary policy: political actors may prefer expansionary policies that boost

onaldTrump/posts/114280322706682564. For a full list of posts related to political pressure on the Federal Reserve, see Appendix B.

[13] "Trump spooks markets with threat to sack Fed chair Powell," *Financial Times*, July 17, 2025. Available at: https://www.ft.com/content/18f4a61c-602a-43f2-b204-5a1a4dbd434f

[14] Board of Governors of the Federal Reserve System (May 29, 2025). "Statement on Chair Powell's meeting with the President," https://www.federalreserve.gov/newsevents/pressreleases/other20250529a.htm

short-run output, even at the cost of long-run inflation or credibility. In the presence of such perceived threats to CBI, market participants may rationally price in a more accommodative stance, even before any formal institutional changes occur.

Importantly, our empirical tests compare monetary policy expectations across wallets with differing beliefs about Powell's removal, holding constant key wallet characteristics including trading volume, profitability, and collateral use. Since Polymarket prices a range of outcomes with financial incentives, these comparisons offer a transparent and incentive-compatible test of whether political pressure is reflected in rate expectations.

> **H1 (Central Bank Independence and Rate Expectations):** *Investors who bet on Powell's removal expect systematically lower interest rates than those who do not, consistent with concerns about political pressure on the Federal Reserve.*

3.2 Monetary Policy Expectations and Macroeconomic Fundamentals

While concerns about political interference are central to understanding investor beliefs, another key question is whether expectations about interest rates reflect macroeconomic fundamentals. In principle, forward-looking agents should anticipate policy responses to changes in inflation and output in line with standard monetary policy frameworks. A canonical representation of such behavior is the Taylor rule, which prescribes that the central bank raise (lower) nominal interest rates in response to higher (lower) inflation and output gaps (Taylor, 1993, 2012).

Taylor (2013) supports the view that monetary policy in the U.S. has historically become more rules-based, especially since the mid-1980s. In particular, the early part of the Great Moderation was characterized by a shift from discretionary to more predictable, rule-based policy, and that this shift contributed to greater macroeconomic stability. Importantly, he contends that CBI alone is not sufficient to achieve desirable outcomes unless paired with a systematic policy strategy.

At the micro level, Carvalho and Nechio (2014) investigate whether households understand and internalize these policy rules. Using survey data on inflation, unemployment, and interest rate expectations, they find that household beliefs about future policy rates co-move with macroeconomic expectations in a manner consistent with the Taylor rule. This suggests that even non-expert agents anchor their rate forecasts in fundamental indicators, supporting the idea that policy expectations may be shaped by simple rule-of-thumb interpretations of central bank behavior.

We examine whether similar behavior emerges in decentralized prediction markets. In particular, we test whether investor expectations on Polymarket respond systematically to macroeconomic news—such as changes in inflation, unemployment, or GDP growth—in a manner consistent with Taylor-type policy rules. Since these markets feature real-money incentives and high-frequency updates, they provide a unique lens through which to evaluate whether rule-based monetary policy is embedded in investor beliefs.

> **H2a (Taylor Rule Consistency)**: *Investor expectations of future interest rates increase with inflation and output growth, consistent with a Taylor-rule framework.*

In addition, we also examine whether beliefs about CBI are systematically linked to broader macroeconomic expectations. A longstanding concern in the literature is that elected governments may exert pressure on central banks to pursue looser monetary policy in the short run to boost economic activity ahead of elections. This creates a classic time-inconsistency problem (Kydland and Prescott, 1977; Barro and Gordon, 1983), where policymakers favor short-term stimulus at the cost of long-run inflation control. Theoretical and empirical work has shown that such political interference can undermine policy credibility and lead to persistently higher inflation (Alesina and Summers, 1993; Cukierman, 1994).

A central bank perceived as lacking independence may be expected to tolerate inflation or maintain accommodative policy for political reasons, especially during election cycles. This loss of credibility can raise long-run inflation expectations and prompt investors to demand higher long-term interest rates as compensation for inflation risk and uncertainty

about future policy. Such beliefs would be consistent with the theoretical trade-off between short-run stimulus and long-run price stability under a politically influenced monetary regime.

> **H2b (Central Bank Independence and Macroeconomic Beliefs)**: *Agents who expect lower CBI anticipate looser monetary policy, higher long-run inflation, and elevated long-term interest rates due to diminished policy credibility.*

4 Empirical Evidence

4.1 Monetary Policy Expectations and CBI

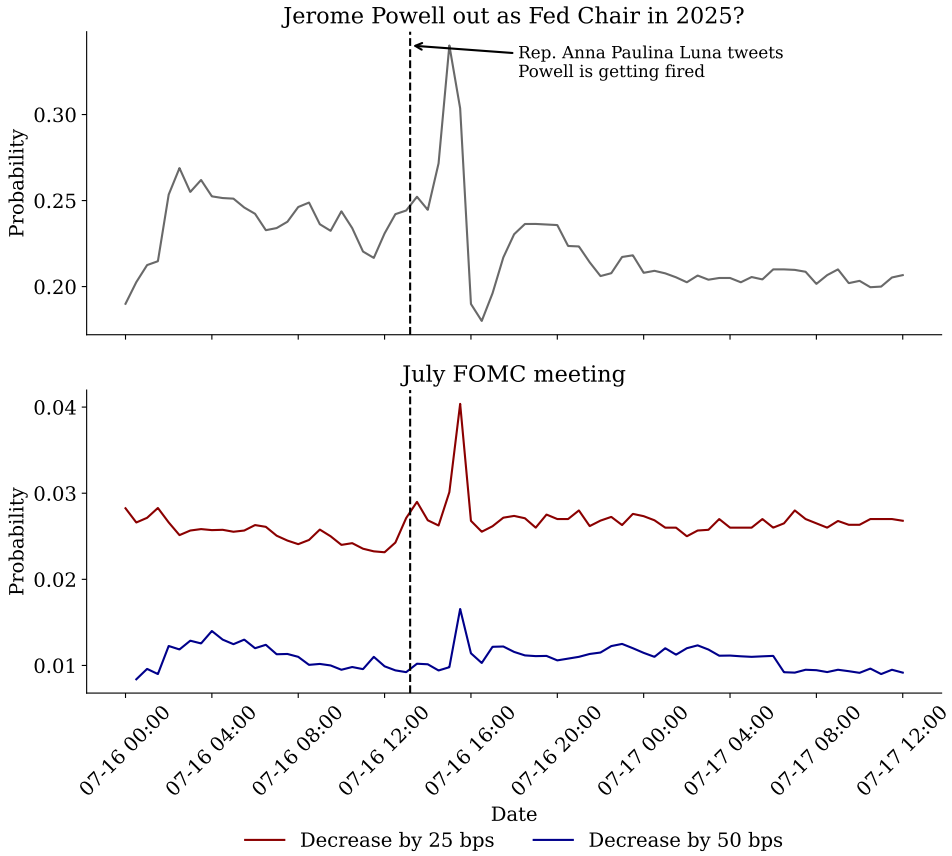
As a starting point, we motivate our analysis with an intra-day case study of the events that unfolded on 16 July 2025, when President Trump reportedly waved a draft termination letter for Federal Reserve Chair Jerome H. Powell during a meeting with House Republicans in the Oval Office. At 13:11 PM, Representative Anna Paulina Luna posted on social media that President Trump was "firing" Powell, referencing the existence of the draft letter.[15]

This news immediately triggered a sharp response across multiple Polymarket contracts. As shown in Figure 4, the probability of Powell being removed as Fed Chair surged, accompanied by a synchronized spike in the implied probabilities of both a 25 bps and 50 bps rate cut at the upcoming July FOMC meeting. These patterns provide direct, time-stamped evidence that market participants update their monetary policy expectations in real time in response to perceived threats to CBI. Although the effects partially dissipate later in the day, the event illustrates how political shocks can rapidly influence beliefs about future interest rates.

We now turn to hawk-dove scores to examine investor-level expectations of monetary policy. These scores are derived from agents' trading behavior in FOMC rate markets and reflect the latent monetary policy stance implied by their portfolio positions. As

[15] `https://x.com/RepLuna/status/1945291045744378153`

Figure 4: Polymarket-Implied FOMC Probabilities and Trump's Draft Firing Letter



Notes. This figure shows Polymarket-implied probabilities for "Jerome Powell out as Fed Chair in 2025?" (upper panel) and the Polymarket-implied probabilities of a 25 bps and a 50 bps rate cut for the July 2025 FOMC meeting (lower panel). On 16 July, 2025, President Trump reportedly waved a draft letter firing Jerome H. Powell during a meeting in the Oval Office with House Republicans. On July 16, 2025, at 13:11 PM, Rep. Anna Paulina Luna first tweeted that President Trump was "firing" Jerome H. Powell on (`https://x.com/RepLuna/status/1945291045744378153`), referencing a draft termination letter reportedly presented during a meeting in the Oval Office with House Republicans.

previously described in Section 2, we normalize each agent's score to a percentile scale from −50 (most hawkish) to +50 (most dovish), based on the cross-sectional distribution of positions at each FOMC event. This approach allows for consistent comparison of investor beliefs across time, accounting for changes in the overall distribution of expectations. By linking these scores to directional bets on CBI, we can test whether beliefs about the Fed's institutional autonomy are systematically associated with monetary policy stance.

Figure 5 plots the distribution of hawk-dove scores for agents who took a positive (*+FJP*) or negative (*-FJP*) net 'Yes' position in the Polymarket contract *'Will Trump*

remove Jerome Powell in 2025?', for each of the March, May, and June 2025 FOMC meetings. A higher hawk-dove score corresponds to more dovish monetary policy expectations. The figure includes only the subset of agents who both traded in at least one FOMC prediction market and held a directional position in the Powell dismissal market, thereby allowing us to match their views on Federal Reserve independence to their monetary policy stance.

In each month, the average hawk-dove score is higher for agents who bet in favor of Powell's removal, indicating that these $+FJP$ agents tend to hold more dovish interest rate expectations than those betting against it ($-FJP$ agents). This visual pattern provides preliminary evidence in support of **Hypothesis 1**, suggesting that expectations about political interference may systematically shape investor beliefs about future interest rates.

While the histogram offers an intuitive starting point for analyzing this relationship, it does not account for confounding investor-level characteristics such as trading volume, profitability, or sophistication. To address this, we now turn to a formal regression framework that tests whether belief in Powell's removal predicts a more dovish monetary policy stance after conditioning on these factors.

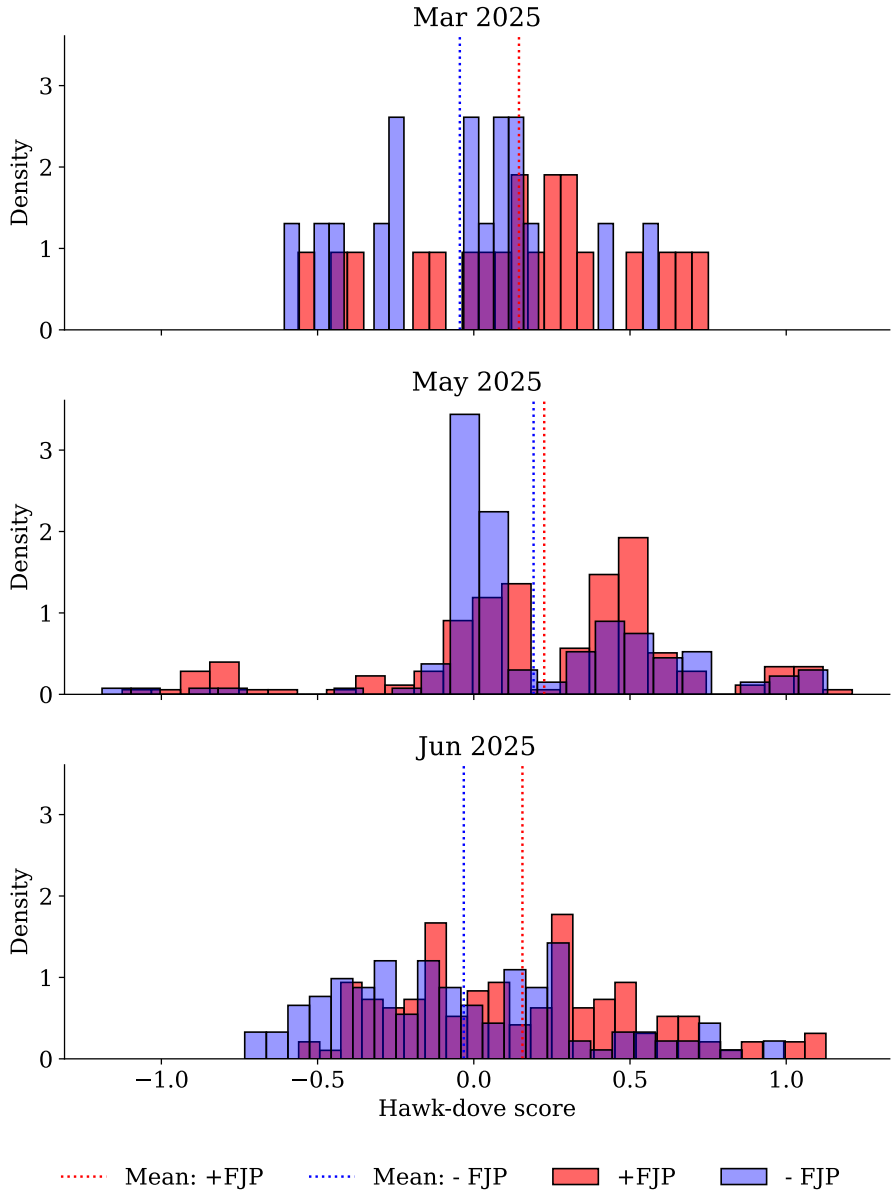
To formally test the link between expectations about Federal Reserve independence and interest rate forecasts, we estimate the following specification:

$$\begin{aligned} HawkDove_{i,t} = \alpha + \beta_1 \cdot +FJP_{i,t} + \beta_2 \cdot -FJP_{i,t} + \beta_3 \cdot SOP_i + \beta_4 \cdot (+FJP_{i,t} \times SOP_i) + \beta_5 \cdot (-FJP_{i,t} \times SOP_i) \\ + \gamma_1 \log(volume_i) + \gamma_2 \cdot profit_i + \gamma_3 \cdot \#markets_i + \varepsilon_{i,t} \quad (5) \end{aligned}$$

The dependent variable, $HawkDove_{i,t}$, is the hawk-dove percentile score of wallet i at FOMC meeting t, based on latent ideological estimates from trading activity. The key explanatory variable, $+FJP$, indicates whether an agent holds a positive net "Yes" position in the market "Will Trump remove Jerome Powell in 2025?" at the time of the meeting. The variable $-FJP$ is a dummy indicating a net "No" position. SOP_i is a dummy equal to 1 for sophisticated agents—defined as those in the top 1% by profit and with trades in more than five markets. We also include controls for the log of total

collateral volume, total profit, and number of distinct markets the agent has traded in.

Figure 5: Hawk-dove Score and Federal Reserve Independence



Notes. The plot shows the distribution of hawk-dove scores for agents with a positive (+FJP) or negative (-FJP) net 'Yes' position in the market 'Will Trump remove Jerome Powell in 2025?' as of the corresponding FOMC meeting date—for the March, May, and June 2025 FOMC meetings, respectively. A positive hawk-dove score indicates a more dovish stance, while a negative score indicates a more hawkish stance.

Table 3: Monetary Policy Stance and Federal Reserve Independence

	March 2025		May 2025		June 2025	
$+FJP$	13.576*	11.916	15.040***	12.457***	11.606***	10.053***
	(7.011)	(7.396)	(2.152)	(2.212)	(2.514)	(2.625)
$-FJP$	-3.650	-3.666	8.493***	4.937**	-3.762	-4.819
	(7.561)	(7.495)	(2.259)	(2.354)	(2.858)	(3.014)
$+FJP \times SOP$		17.627**		-27.218***		3.579
		(7.781)		(3.365)		(9.007)
$-FJP \times SOP$		0.000**		-1.304		8.825
		(0.000)		(8.847)		(9.060)
$log(volume)$		-0.436***		0.676***		-1.380***
		(0.106)		(0.113)		(0.086)
$profit$		0.000		0.000**		0.000***
		(0.000)		(0.000)		(0.000)
$\#markets$		0.046***		0.051***		0.129***
		(0.009)		(0.010)		(0.010)
SOP		4.557*		0.683		-1.487
		(2.506)		(2.577)		(1.731)
$const$	-0.003	2.027***	-0.236	-6.821***	-0.047	6.736***
	(0.175)	(0.754)	(0.224)	(0.733)	(0.194)	(0.558)
R-squared Adj.	0.000	0.001	0.004	0.011	0.001	0.015
N	27206	27206	16852	16852	22453	22453

Notes. The table reports coefficients from regressions of the hawk-dove percentileon agents' stance toward Federal Reserve independence, along with a set of controls. *+FJP* (*-FJP*) is a dummy variable indicating whether a Polymarket agent has positive (negative) net yes position on market 'Will Trump remove Jerome Powell in 2025?'as of the corresponding FOMC meeting date (March, May, or June 2025). *SOP* is a dummy variable indicating whether a Polymarket agent is a sophisticated investor, defined as being in the top 1% in terms of profit on Polymarket and having invested in more than five markets. *log(volume)* is the log of an agent's total collateral volume on Polymarket. *profit* is the agent's total profit, and *# markets* is the number of markets the agent has bet on. White heteroscedasticity-robust standard errors are reported in parentheses. *, **, and *** denote 10%, 5%, and 1% significance levels, respectively.

Table 3 presents regression results from estimating equation (5). Across all three FOMC meetings from March 2025 to June 2025, the coefficients on $+FJP$ are positive and statistically significant, while the coefficients on $-FJP$ are positive only for the May 2025 meeting.

This pattern suggests that agents who expect Trump to replace Powell as Fed Chair tend to hold significantly more dovish policy expectations, consistent with **Hypothesis 1**. The coefficients on $+FJP$ are positive and statistically significant across all meetings, indicating that belief in Powell's removal is associated with systematically lower interest rate expectations. The interaction terms with SOP further show that this effect is particularly pronounced among more sophisticated agents in the March and May meetings. Controls for trading characteristics confirm that more active and profitable agents express

stronger directional expectations.

Importantly, the relationship between dovish stance and belief in Powell's removal remains statistically significant even after controlling for informed or sophisticated trading behavior, which we test in even-numbered columns in Table 3. While the sign and magnitude of interaction effects vary across meetings, the main effect of $+FJP$ remains robust. This suggests that although sophisticated agents may moderate the link between Fed independence and policy beliefs, they are not the main source of the observed dovish bias. Instead, the results point to a broader mechanism whereby expectations of political interference undermine confidence in the Fed's autonomy, shaping investor beliefs about future monetary policy.

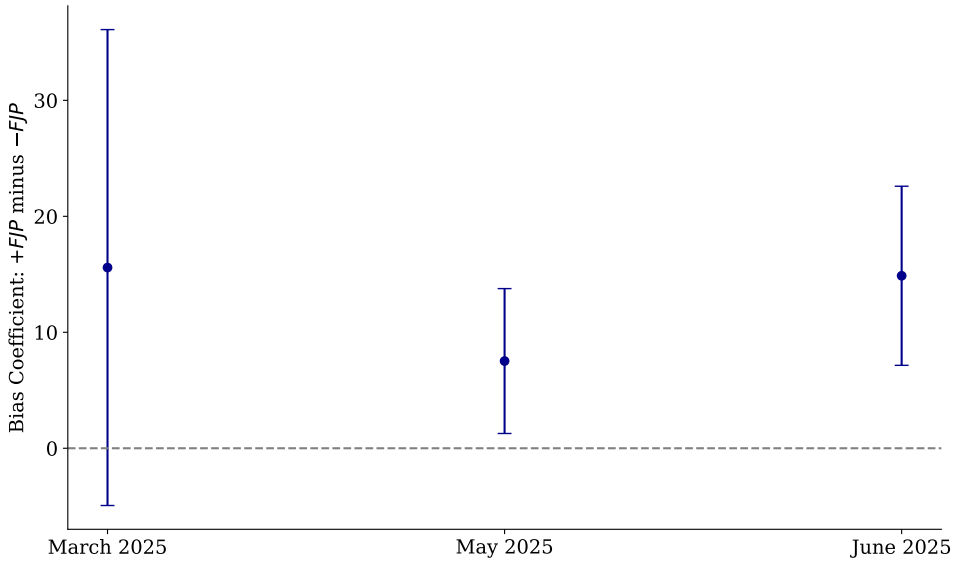
Figure 6 illustrates the estimated difference in monetary policy stance between agents who bet in favor of Powell's removal ($+FJP$) and those who bet against it ($\text{-}FJP$) across the March, May, and June 2025 FOMC meetings. The figure plots the point estimates and 95% confidence intervals for the difference in Hawk-Dove scores, offering a direct visual test of **Hypothesis 1**, which posits that investors betting in favor of Powell's dismissal exhibit systematically more dovish interest rate expectations. These results reinforce the idea that perceived threats to CBI are reflected in investor beliefs about future interest rates.

We find no statistically significant difference in monetary policy stance between $+FJP$ and $\text{-}FJP$ agents for the March meeting. However, beginning in the May 2025 FOMC meeting and continuing into the June 2025 FOMC meeting, a clear and statistically significant dovish bias emerges among $+FJP$ agents. In May, the difference in Hawk-Dove scores is approximately $15.040 - 8.493 = 6.547$ percentile points, while in June it widens further to $11.606 - (-3.762) = 15.368$ percentile points (see Table 3). These results provide strong support for Hypothesis 1 and suggest that investor expectations systematically incorporate concerns over Federal Reserve independence.

To examine whether the dovish bias among $+FJP$ agents reflects partisan identity rather than institutional concerns, Appendix D tests whether monetary policy expectations differ systematically by political orientation. We find that the effect of Fed independence

beliefs persists even after controlling for support for Donald Trump using positions in the presidential election market, suggesting that the channel we identify is not driven by partisan bias.

Figure 6: Bias Coefficient: Monetary Policy Stance and Fed Independence



Notes. This figure shows the estimated bias coefficient—defined as the difference between the coefficients for *+FJP* and *–FJP* (from the full specification) in Table 3—for the March, May, and June 2025 FOMC meetings. Vertical bars represent 95% confidence intervals calculated using the Delta method.

4.2 Monetary Policy Expectations and Macroeconomic Beliefs

4.2.1 Inflation Expectations

In this section, we examine whether investor expectations about inflation are systematically related to their inferred monetary policy stance. The idea is to test whether agents who expect high inflation tend to adopt a more hawkish stance, and those who expect low inflation tend to be more dovish, consistent with Taylor-rule reasoning. To do so, we use Polymarket contracts predicting either high or low inflation outcomes for the months preceding the March, May, and June 2025 FOMC meetings.

We define high inflation (*HIF*) as a positive net "Yes" position on contracts predicting February, April, or May inflation above 3.1%, 2.7%, or 2.6%, respectively. Low inflation (*LIF*) is defined as a "Yes" position on contracts predicting inflation at or below 2.7%,

2.3%, or 2.2% for the same months. These thresholds align with contract definitions on Polymarket and reflect the range of inflation scenarios investors were able to trade on before each FOMC meeting. By matching participation in these inflation markets with hawk-dove scores estimated from FOMC prediction markets, we test whether monetary policy stance differs significantly between high- and low-inflation agents.

Figure 7 plots the distribution of hawk-dove scores for agents with positive net positions on high inflation (*HIF*) and low inflation (*LIF*) outcomes, for each of the March, May, and June 2025 FOMC meetings. Each group is defined based on whether an agent held a net "Yes" position in a Polymarket contract predicting above- or below-threshold inflation outcomes for the corresponding reference month. We restrict attention to agents who participated in both FOMC and inflation prediction markets to enable direct mapping between macroeconomic expectations and monetary policy stance.

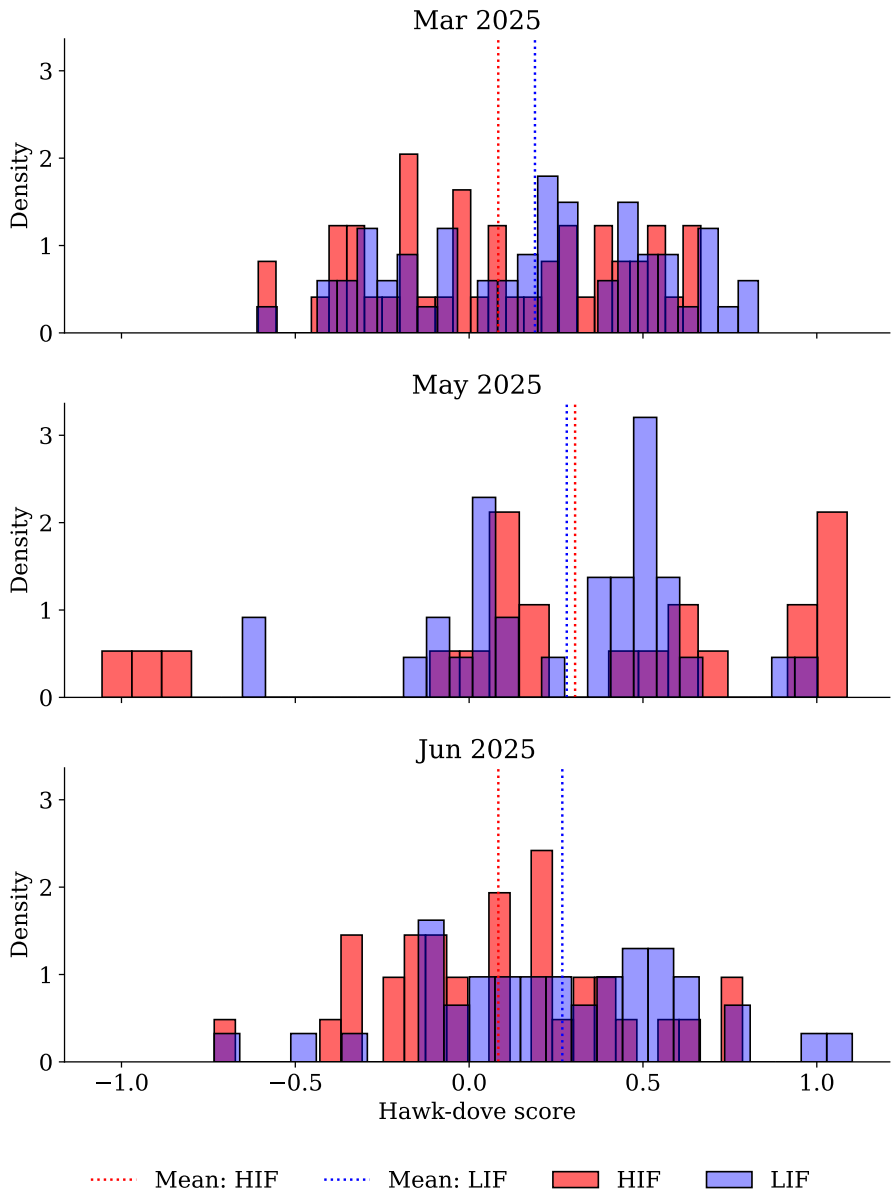
This analysis serves as a test of **Hypothesis 2a**, which posits that agents with stronger inflation expectations should anticipate tighter or looser monetary policy in line with Taylor-rule logic. Specifically, agents betting on high inflation should expect more hawkish monetary policy, while those betting on low inflation should expect a more dovish stance. Visually, Figure 7 shows that agents in the *LIF* group have significantly higher hawk-dove scores (i.e., more dovish expectations) relative to the *HIF* group for the March and June 2025 meetings. However, this pattern does not hold for the May 2025 meeting, where the average scores of the two groups are similar.

To formally test this relationship, we estimate the following specification:

$$\begin{aligned} HawkDove_{i,t} = \alpha + \beta_1 \cdot HIF_{i,t} + \beta_2 \cdot LIF_{i,t} + \beta_3 \cdot SOP_i + \beta_4 \cdot (HIF_{i,t} \times SOP_i) + \beta_5 \cdot (LIF_{i,t} \times SOP_i) \\ + \gamma_1 \log(volume_i) + \gamma_2 \cdot profit_i + \gamma_3 \cdot \#markets_i + \varepsilon_{i,t} \quad (6) \end{aligned}$$

Table 4 presents the results. We find that the coefficient on *LIF* is consistently positive and statistically significant across all three meetings, indicating that agents who expect low inflation are also more dovish in their monetary policy beliefs, relative to agents that did not participate in the inflation market. By contrast, the coefficient on *HIF* is

Figure 7: Hawk-dove Score and Inflation



Notes. The plot shows the distribution of hawk-dove scores for agents with high inflation expectation (*HIF*) and low inflation expectation (*LIF*). *HIF* (*LIF*) is a dummy variable equal to one if a Polymarket agent holds a positive net "Yes" position on high (low) inflation for the relevant month. Specifically, high (low) inflation is defined as: *February* inflation $> 3.1\%$ ($\leq 2.7\%$), *April* inflation $\geq 2.7\%$ ($\leq 2.3\%$), and *May* inflation $\geq 2.6\%$ ($\leq 2.2\%$), corresponding to the FOMC meeting months of March, May, and June 2025, respectively. A positive hawk-dove score indicates a more dovish stance, while a negative score indicates a more hawkish stance.

generally smaller and only significant in May, with inconsistent signs across meetings. These results support Hypothesis 2a by showing that inflation expectations, particularly on the dovish side, are reflected in trading behavior. However, the relatively muted effect

of high inflation bets suggests that not all inflation expectations are fully priced into monetary policy forecasts on decentralized markets. The evidence suggests that beliefs about low inflation are generally associated with expectations of looser monetary policy.

Table 4: Monetary Policy Stance and Inflation

	March 2025		May 2025		June 2025	
HIF	3.014	1.445	18.471***	12.809*	-0.139	-0.382
	(4.950)	(5.137)	(7.006)	(6.900)	(4.987)	(5.421)
LIF	14.770***	16.993***	17.542***	12.722***	21.505***	19.854***
	(4.387)	(4.348)	(4.374)	(4.784)	(4.249)	(4.680)
$HIF \times SOP$		-0.890		-0.000***		-16.214***
		(18.876)		(0.000)		(5.669)
$LIF \times SOP$		-25.004		13.621**		4.569
		(16.472)		(6.823)		(12.884)
$log(volume)$		-0.448***		0.681***		-1.384***
		(0.106)		(0.113)		(0.086)
$profit$		0.000		0.000***		0.000***
		(0.000)		(0.000)		(0.000)
$\#markets$		0.045***		0.055***		0.129***
		(0.009)		(0.010)		(0.010)
SOP		5.136**		0.048		-1.470
		(2.535)		(2.504)		(1.702)
$const$	-0.032	2.127***	-0.054	-6.855***	-0.037	6.747***
	(0.175)	(0.753)	(0.223)	(0.732)	(0.193)	(0.557)
R-squared Adj.	0.001	0.002	0.001	0.010	0.001	0.015
N	27206	27206	16852	16852	22453	22453

Notes. The table reports coefficients from regressions of the hawk-dove percentile on agents' stance toward inflation, along with a set of control variables. *HIF* (*LIF*) is a dummy variable equal to one if a Polymarket agent holds a positive net "Yes" position on high (low) inflation for the relevant month. Specifically, high (low) inflation is defined as: *February* inflation $> 3.1\%$ ($\leq 2.7\%$), *April* inflation $\geq 2.7\%$ ($\leq 2.3\%$), and *May* inflation $\geq 2.6\%$ ($\leq 2.2\%$), corresponding to the FOMC meeting months of March, May, and June 2025, respectively. *SOP* is a dummy variable indicating whether a Polymarket agent is a sophisticated investor, defined as being in the top 1% in terms of profit on Polymarket and having invested in more than five markets. *log(volume)* is the log of an agent's total collateral volume on Polymarket. *profit* is the agent's total profit, and *# markets* is the number of markets the agent has bet on. White heteroscedasticity-robust standard errors are reported in parentheses. *, **, and *** denote 10%, 5%, and 1% significance levels, respectively.

4.2.2 Recession Risk

We now turn to expectations about recession risk as a second macroeconomic belief relevant to monetary policy stance. If agents anticipate a recession, they may reasonably expect the Federal Reserve to adopt a more accommodative policy stance, consistent with Taylor-rule logic. To test this, we examine whether agents' positions in a Polymarket

contract predicting a U.S. recession in 2025 are systematically associated with their inferred hawk-dove scores.

Figure 8 plots the distribution of hawk-dove scores for agents who took a positive (*+REC*) or negative (*-REC*) net 'Yes' position in the Polymarket contract *'Will the U.S. enter a recession in 2025?'*, for each of the March, May, and June 2025 FOMC meetings. A higher hawk-dove score corresponds to more dovish monetary policy expectations. The figure includes only the subset of agents who traded in both at least one FOMC prediction market and the recession risk market, thereby allowing us to match their macroeconomic beliefs to their monetary policy stance.

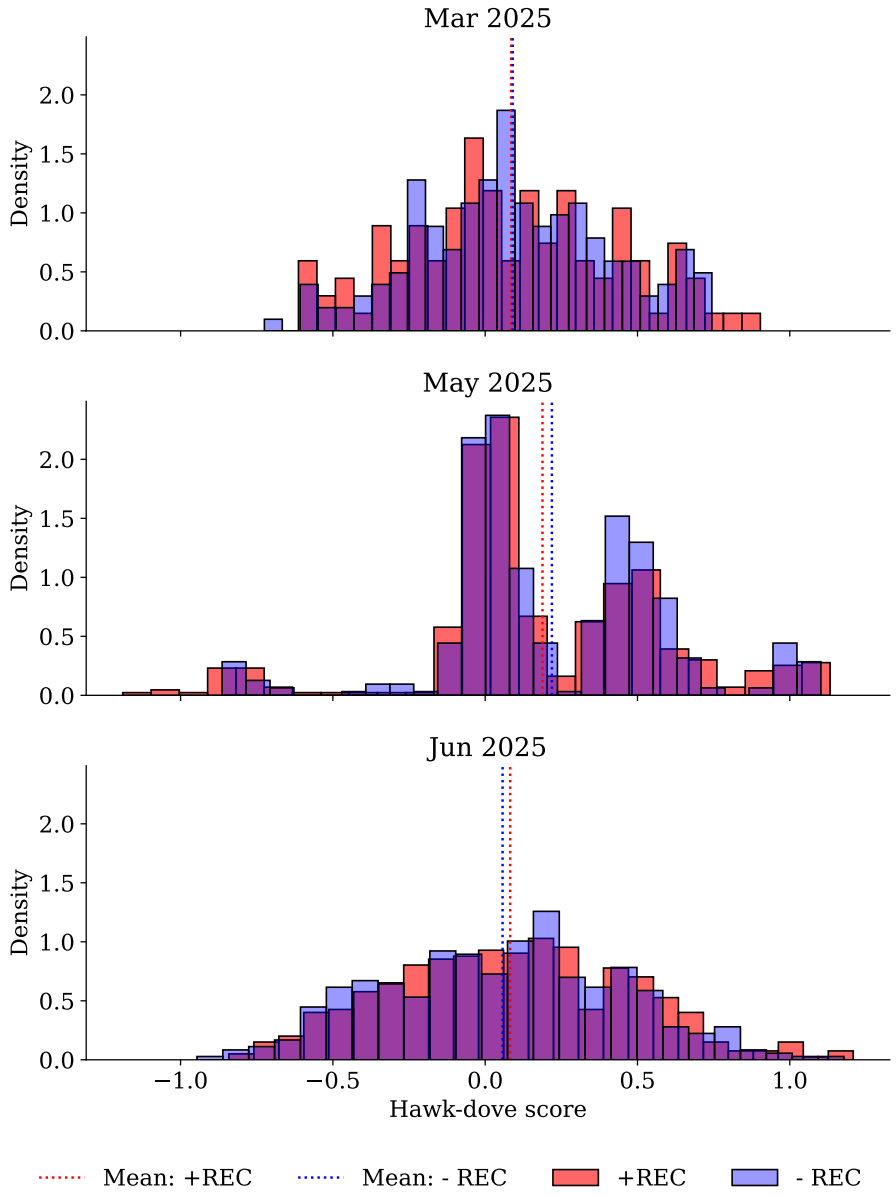
This analysis provides a visual test of **Hypothesis 2a**, which posits that agents who anticipate a recession—an indicator of weak macroeconomic fundamentals—should expect looser monetary policy consistent with Taylor-rule logic. However, in contrast to the Fed independence results, we observe only modest differences in hawk-dove scores between *+REC* and *-REC* agents across all three meetings. The average scores of the two groups are statistically indistinguishable from each other, suggesting no clear systematic relationship between beliefs about macroeconomic outcomes and interest rate expectations in this sample.

These results imply that, at least for the most active macroeconomic contract on Polymarket, investor forecasts of monetary policy are not tightly anchored to contemporaneous expectations about the business cycle. This casts doubt on the extent to which Taylor-rule-type reasoning drives behavior in decentralized prediction markets, and highlights the importance of other factors—such as political pressure—in shaping monetary policy expectations.

To formally test whether macroeconomic expectations shape monetary policy beliefs, we estimate the following specification:

$$\begin{aligned} HawkDove_{i,t} = \alpha + \beta_1 \cdot +REC_{i,t} + \beta_2 \cdot \text{-}REC_{i,t} + \beta_3 \cdot SOP_i + \beta_4 \cdot (+REC_{i,t} \times SOP_i) + \beta_5 \cdot (\text{-}REC_{i,t} \times SOP_i) \\ + \gamma_1 \log(volume_i) + \gamma_2 \cdot profit_i + \gamma_3 \cdot \#markets_i + \varepsilon_{i,t} \quad (7) \end{aligned}$$

Figure 8: Hawk-dove Score and Recession Risk



Notes. The plot shows the distribution of hawk-dove scores for agents with a positive (+REC) or negative (-REC) net 'Yes' position in the market 'US recession in 2025?' as of the corresponding FOMC meeting date—for the March, May, and June 2025 FOMC meetings, respectively. A positive hawk-dove score indicates a more dovish stance, while a negative score indicates a more hawkish stance.

The key explanatory variables are $+REC$ and $-REC$, which indicate whether an agent holds a net "Yes" or "No" position, respectively, in the Polymarket contract *"Will the U.S. enter a recession in 2025?"* as of the corresponding FOMC meeting. We focus on this market due to its high liquidity and large overlap with agents who participate in FOMC prediction markets. As in the previous section, SOP_i identifies sophisticated

investors, and we include controls for wallet-level trading characteristics.

Table 5 presents regression results examining whether monetary policy stances are associated with expectations about broader economic fundamentals, specifically the likelihood of a U.S. recession in 2025. Both $+REC$ and $-REC$ coefficients are consistently positive and statistically significant. These results suggest that while agents who trade on recession-related markets tend to be more dovish, recession expectations themselves may not be the primary driver of monetary policy stance. Notably, both agents who expect a recession and those who do not exhibit more dovish stance, indicating that perceptions of recession risk are not the main determinant of agents' monetary policy beliefs. Figure 8 shows the distribution of estimated hawk-dove scores for agents with positive and negative exposures to recession risk. The two distributions are highly similar, reinforcing the idea that recession beliefs alone do not systematically differentiate agents' monetary policy preferences.

While Table 5 shows that agents who trade in the recession market exhibit more dovish monetary policy stances on average, it does not reveal a clear directional bias between those who expect a recession ($+REC$) and those who do not ($-REC$). One limitation of this approach is that it relies on cross-sectional comparisons across agents with potentially heterogeneous priors. That is, differences in hawk-dove scores may reflect unobserved individual beliefs about the broader economy—such as inflation expectations, labor market assessments, or other macro signals—rather than the causal impact of recession risk alone.

In other words, agents who take opposing views on recession risk may do so not because of different reactions to identical information, but because they possess different information sets or interpret signals through different belief systems. This can attenuate or obscure the estimated relationship between macroeconomic expectations and monetary policy stance.[16]

To overcome this limitation, we next turn to a case study that leverages within-agent variation. In particular, we examine how agents' monetary policy expectations respond

[16]Formally, suppose agent i has hawk-dove score $score_i = \alpha_i + \beta \cdot recession\ risk_i$, while agent j has $score_j = \alpha_j + \beta \cdot recession\ risk_j$. If $\alpha_i \neq \alpha_j$, the difference in scores reflects both the treatment effect β and the difference in priors $(\alpha_i - \alpha_j)$. Only under the assumption that priors are identical or uncorrelated with the recession belief can the observed difference isolate β.

Table 5: Monetary Policy Stance and Recession Risk

	March 2025		May 2025		June 2025	
$+REC$	7.090**	6.403**	11.370***	9.108***	6.534***	4.801***
	(3.012)	(3.057)	(1.288)	(1.311)	(1.453)	(1.529)
$-REC$	8.422***	7.053***	12.904***	10.762***	5.143***	3.985**
	(2.257)	(2.309)	(1.334)	(1.369)	(1.574)	(1.641)
$+REC \times SOP$		7.673		-25.515***		10.159
		(10.078)		(8.766)		(6.738)
$-REC \times SOP$		22.871***		-11.261		2.160
		(7.847)		(10.591)		(11.760)
$log(volume)$		-0.446***		0.672***		-1.379***
		(0.106)		(0.112)		(0.086)
$profit$		0.000		0.000**		0.000***
		(0.000)		(0.000)		(0.000)
$\#markets$		0.041***		0.036***		0.120***
		(0.009)		(0.010)		(0.010)
SOP		4.058		2.299		-1.781
		(2.550)		(2.631)		(1.749)
$const$	-0.078	2.177***	-0.618***	-6.708***	-0.235	6.801***
	(0.176)	(0.753)	(0.228)	(0.731)	(0.196)	(0.558)
R-squared Adj.	0.001	0.002	0.008	0.015	0.002	0.015
N	27206	27206	16852	16852	22453	22453

Notes. The table reports coefficients from regressions of the hawk-dove percentileon agents' stance toward Federal Reserve independence, along with a set of controls. *+REC* (*-REC*) is a dummy variable indicating whether a Polymarket agent has positive (negative) net yes position on market 'US recession in 2025?' as of the corresponding FOMC meeting date (March, May, or June 2025). *SOP* is a dummy variable indicating whether a Polymarket agent is a sophisticated investor, defined as being in the top 1% in terms of profit on Polymarket and having invested in more than five markets. *log(volume)* is the log of an agent's total collateral volume on Polymarket. *profit* is the agent's total profit, and *# markets* is the number of markets the agent has bet on. White heteroscedasticity-robust standard errors are reported in parentheses. *, **, and *** denote 10%, 5%, and 1% significance levels, respectively.

when their perceived recession risk changes due to a discrete, observable event: the imposition of new tariffs during the "Liberation Day" trade dispute in April 2025. This within-agent design holds constant individual priors and isolates the causal effect of updated recession risk beliefs on monetary policy stance.

4.2.3 Case Study: Liberation Day Tariffs and Recession Risk

On April 2, 2025—branded by the White House as 'Liberation Day tariffs'—President Trump signed Executive Order 14257, imposing 10% baseline tariff on U.S. imports and "reciprocal" tariffs (up to 50% or more) on imports from roughly 60 targeted countries. Panel A of Figure 9 shows the market-implied probability of a U.S. recession in 2025 from Polymarket. Immediately following the announcement, the market implied probability of

recession spiked sharply—reaching as high as 65% in the days after the 'Liberation day'. In this part, we use the Liberation Day tariffs as an exogenous shock to recession risk to identify the effect of perceived recession risk on agents' monetary policy stance.

We estimated agents' monetary policy stance before and after the Liberation Day tariff. Panel B of Figure 9 compares the distribution of the hawk-dove score on March 29, 2025 and on April 7, 2025 for the May 2025 FOMC meeting. The figure shows a modest outward shift in the distribution following the tariff announcement, indicating more polarized views among agents, particularly in the tail. This divergence in tail behavior reflects heterogeneity in how agents interpret the macroeconomic consequences of the tariff shock.

To explain the bimodal distribution following the Liberation Day tariffs, market commentators have noted[17] that the directional impact on monetary policy expectations depends on how agents weigh recession risks relative to inflationary pressures. Some may anticipate a downturn due to increased trade barriers and adopt a more dovish stance, consistent with a Taylor rule response to declining output. Others may emphasize the inflationary effects of tariffs, particularly on imported goods, and therefore adopt a more hawkish stance. The polarization of hawk-dove scores observed in Panel B is consistent with this interpretation.

To formally test whether changes in perceived recession risk causally affect monetary policy expectations, we estimate the following specification:

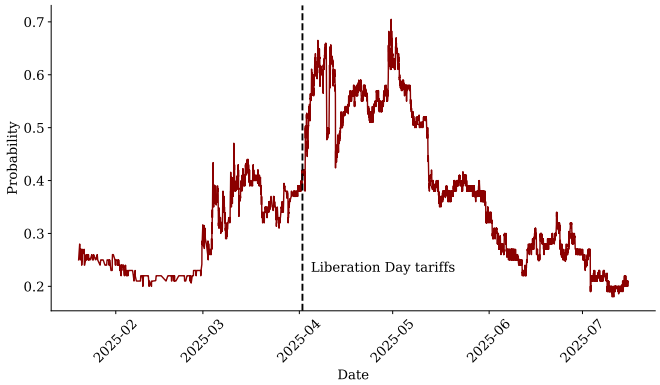
$$\Delta HawkDove_i = \alpha + \beta_1 \cdot \Delta REC_i + \beta_2 \cdot (\Delta REC_i \times SOP_i) + \gamma_1 \log(volume_i) + \gamma_2 \cdot profit_i + \gamma_3 \cdot \#markets_i + \beta_3 \cdot SOP_i + \varepsilon_i \quad (8)$$

The dependent variable, $\Delta HawkDove_i$, is the change in hawk-dove score for agent i between March 29 and April 7, 2025, covering the period around the Liberation Day tariff announcement. A positive value reflects a shift toward a more dovish monetary policy stance. The key explanatory variable, ΔREC_i, is a binary indicator equal to one if

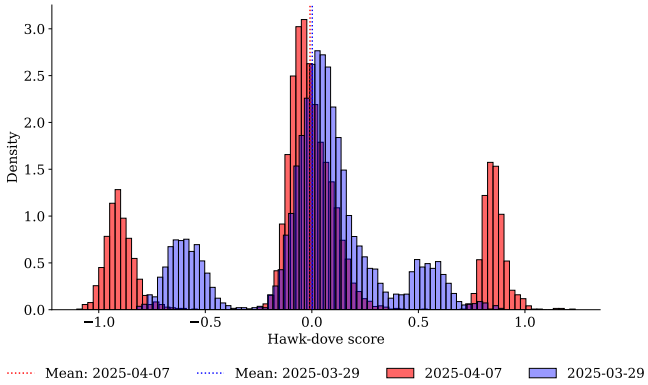
[17] See *The Federal Reserve and Liberation Day*, EFG International (2025). Available at: `https://www.efginternational.com/us/insights/2025/The-Federal-Reserve-and-Liberation-Day.html`

Figure 9: Liberation Day Tariff and Recession Risk

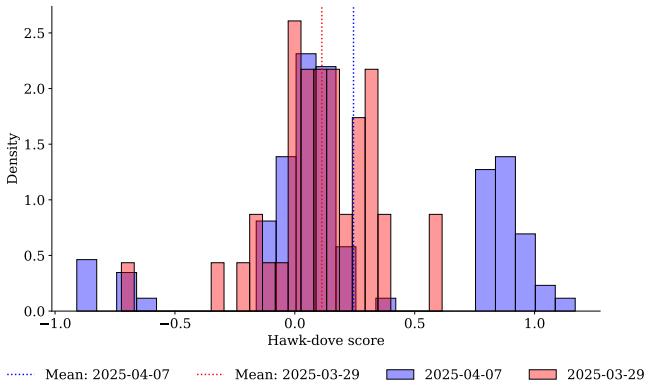
Panel A: Market-Implied Recession Probability from Polymarket



Panel B: Hawk-Dove Scores Distribution Pre- and Post-Tariff Announcement



Panel C: Hawk-Dove Score Distribution of Recession-Sensitive Agents



Notes. This figure shows how the announcement of Liberation Day tariffs on April 2, 2025, affected market expectations of recession risk and agents' monetary policy stance. Panel A plots the price of the "Yes" token in the narket 'U.S. recession in 2025?' Panel B compares the distribution of hawk-dove scores across all agents before (March 29, 2025) and after (April 7, 2025) the tariff event, for the May 2025 FOMC meeting. Panel C shows the distribution of hawk-dove scores for agents who priced in recession risk—defined as those with increased net positive positions in the 'U.S. recession in 2025' market following the tariffs— before (March 29, 2025) and after (April 7, 2025)

the agent increased their net "Yes" exposure in the "U.S. recession in 2025?" prediction market over this interval, indicating an upward revision in their recession probability. The interaction term $\Delta REC_i \times SOP_i$ tests whether this relationship differs across sophisticated agents, where SOP_i is a dummy equal to one for agents in the top 1% of profitability and who have traded in more than five markets. We also control for wallet-level characteristics: the log of total collateral volume, cumulative profit, and number of distinct markets traded.

This specification leverages within-agent variation by tracking changes in monetary policy stance for the same individual, thereby holding fixed unobservable priors and mitigating omitted variable bias.

Table 6: Recession Risk Perception and Monetary Policy Stance

	Changes in Monetary Policy Stance	
ΔREC	4.644	4.643
	(4.860)	(5.187)
$\Delta REC \times SOP$		27.834***
		(7.856)
$log(volume)$		-0.977***
		(0.165)
$profit$		-0.000
		(0.000)
$\#markets$		0.053***
		(0.015)
SOP		-5.296
		(3.298)
$const$	-0.816***	5.112***
	(0.313)	(1.136)
R-squared Adj.	0.000	0.007
N	5618	5614

Notes. The table reports coefficients from regressions of the change in hawk-dove percentile between March 29, 2025, and April 7, 2025, surrounding the announcement of Liberation Day tariffs, for the May 2025 FOMC meeting. ΔREC is a dummy variable equal to 1 if a Polymarket agent increased their net "Yes" position in the market 'U.S. recession in 2025?' over this period. *SOP* is a dummy variable indicating whether a Polymarket agent is a sophisticated investor, defined as being in the top 1% in terms of profit on Polymarket and having invested in more than five markets. *log(volume)* is the log of an agent's total collateral volume on Polymarket. *profit* is the agent's total profit, and *# markets* is the number of markets the agent has bet on. White heteroscedasticity-robust standard errors are reported in parentheses. *, **, and *** denote 10%, 5%, and 1% significance levels, respectively.

Table 6 presents regression results testing whether agents who perceived greater

recession risk following the Liberation Day tariffs became more dovish in their monetary policy stance. The coefficient on ΔREC, which captures agents who increased their net "Yes" positions in the "U.S. recession in 2025?" market between March 29 and April 7, is positive in both specifications, consistent with the idea that heightened recession concerns are associated with a shift toward a more dovish stance. In addition, the interaction term $\Delta REC \times SOP$ is positive and statistically significant in column (2), indicating that sophisticated agents who increased their beliefs on recession risk became significantly more dovish in response to the tariff shock.

These findings support the interpretation that recession risk beliefs influence monetary policy stance, especially when identified through within-agent variation that accounts for unobservable differences in priors or information sets. Although the average effect across all agents is modest and statistically insignificant, the significant interaction term indicates that more informed agents adjusted their expectations in response to the tariff shock in a manner consistent with macroeconomic fundamentals. This behavior aligns with standard monetary policy reaction functions and provides evidence in support of **Hypothesis H2a**, which posits that investor expectations of future interest rates respond to macroeconomic news in a Taylor-rule-consistent manner. The result also complements survey-based evidence in Carvalho and Nechio (2014) that informed individuals form expectations more in line with textbook macroeconomic models.

4.3 CBI and Macroeconomic Beliefs

To assess whether beliefs about CBI are systematically linked to agents' broader macroeconomic expectations, we regress trading behavior in key macro-related markets on beliefs about Federal Reserve leadership. Specifically, we examine whether agents betting that President Trump will remove Jerome Powell ($+FJP$) or not ($-FJP$) also take consistent positions in markets related to long-term interest rates, recession risk, and inflation.

We estimate the following regression:

$$\log^*(\text{Position}_{im}) = \alpha + \beta_1(+FJP_i) + \beta_2(-FJP_i) + \gamma' X_i + \epsilon_{im}, \tag{9}$$

where $\log^*(\text{Position}_{im})$ is the sign-preserving logarithm of agent i's net "Yes" position in market group m. We run separate regressions for five outcome variables: (i) high 10-year Treasury yields, (ii) U.S. recession risk in 2025, (iii) low inflation in 2025 ("No" on inflation exceeding 3%), (iv) low inflation in June 2025 ("Yes" on monthly CPI $\leq 2.2\%$), and (v) high inflation in June 2025 ("Yes" on CPI $\geq 2.6\%$).[18] The main explanatory variables are indicators for *+FJP* and *-FJP*, and the control vector X_i includes wallet-level trading characteristics and a dummy for sophisticated investors (*SOP*).

Table 7 presents the results. We find that agents expecting Powell's removal (*+FJP*) are significantly more likely to take long positions in high 10-year Treasury yield and recession risk markets. These results are consistent with expectations of diminished monetary policy credibility and macroeconomic instability under reduced CBI, supporting **Hypothesis 2b**. Conversely, *-FJP* agents are significantly less likely to expect either outcome.

In inflation markets, we observe a more nuanced pattern. For both annual and monthly inflation markets focused on low inflation outcomes, *-FJP* agents are significantly more likely to increase net "Yes" positions. This suggests that agents who do not expect Powell's removal are also more confident that inflation will remain contained. These beliefs are broadly consistent with theories on political interference and monetary policy, where political interference is expected to result in higher inflation due to reduced policy credibility. The fact that *+FJP* agents do not strongly bet on high inflation outcomes suggests limited support for a widespread inflationary shock. One possible interpretation is that inflation expectations remain anchored, or that inflationary concerns are offset by other macroeconomic risks.

Indeed, the lack of systematic bias in high inflation markets contrasts with the clear divergence in low inflation beliefs. This asymmetry may reflect a more complex macroeconomic outlook among investors. For example, recession risk driven by geopolitical factors or protectionist trade policies (e.g., Trump tariffs) may dampen inflation expectations despite concerns over central bank independence. A limitation of our analysis is that

[18] See notes to Table 7 for market definitions.

while we capture systematic differences in beliefs between *+FJP* and *-FJP* agents, these differences may also reflect expectations about broader Trump-era economic policy—such as fiscal stimulus, trade conflict, or geopolitical instability—rather than political pressure on the Federal Reserve alone. Among sophisticated investors, we find some evidence of heterogeneity. The interaction term between *+FJP* and *SOP* is significantly negative in both high yield and high inflation markets, suggesting that informed agents may expect a different transmission mechanism—perhaps anticipating preemptive easing, yield curve management, or policy accommodation that offsets inflationary pressure.

Taken together, these findings suggest that investors associate reduced CBI with higher long-term rates and greater macroeconomic instability. However, they do not expect these risks to necessarily translate into elevated inflation.

Table 7: Central Bank Independence and Macroeconomic Fundamentals

	High 10 Year Yield		Recession Risk (2025)		Low Inflation (2025)		Low Inflation (June 2025)		High Inflation (June 2025)	
$+FJP$	0.565**	0.770***	0.401**	0.411**	0.390	0.437	-0.150	-0.022	-0.273	-0.126
	(0.230)	(0.241)	(0.157)	(0.161)	(0.313)	(0.329)	(0.312)	(0.305)	(0.242)	(0.238)
$-FJP$	-1.265***	-1.053***	-0.642***	-0.632***	0.335	0.303	0.831**	0.753**	-0.410	-0.394
	(0.251)	(0.270)	(0.163)	(0.167)	(0.293)	(0.317)	(0.381)	(0.372)	(0.296)	(0.291)
$+FJP \times SOP$		-2.933**		-1.171		-0.867		-6.112***		-6.517***
		(1.444)		(1.055)		(1.329)		(1.871)		(1.461)
$-FJP \times SOP$		-0.077		-0.688		-0.735		-1.510		-0.799
		(1.448)		(1.188)		(1.327)		(1.883)		(1.470)
$log(volume)$		-0.064***		-0.013		-0.048*		0.103***		-0.020
		(0.017)		(0.012)		(0.026)		(0.025)		(0.019)
$profit$		0.000*		0.000		-0.000**		-0.000***		-0.000***
		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)
$\#markets$		0.004*		0.002		0.002		-0.003		0.002
		(0.002)		(0.001)		(0.003)		(0.003)		(0.003)
SOP		-0.113		-0.317		1.148**		0.411		1.021**
		(0.619)		(0.244)		(0.513)		(0.510)		(0.398)
$const$	-0.037	0.205***	0.225***	0.263***	-0.144**	0.055	0.112	-0.590***	0.184***	0.181
	(0.044)	(0.072)	(0.034)	(0.075)	(0.073)	(0.124)	(0.091)	(0.148)	(0.070)	(0.115)
R-squared Adj.	0.016	0.029	0.002	0.003	0.001	0.007	0.006	0.118	0.002	0.104
N	1833	1833	8929	8929	903	903	500	500	500	500

Notes. The table reports coefficients from regressions in which the dependent variable is the sign-preserving logarithm of an agent's net "Yes" position in two groups of markets: (i) high 10-year Treasury yields (aggregated across markets such as "Will the 10-year Treasury yield hit 5.5% (or higher) in 2025?"), (ii) recession risk ("U.S. recession in 2025?"), (iii) low inflation (2025), proxied by the net "No" position in the market "Will inflation reach more than 3% in 2025?", (iv) low inflation (June 2025) proxied by the net "Yes" position in the market "Annual inflation increase by $\leq 2.2\%$ in June 2025?", and (v) high inflation (June 2025) proxied by the net "Yes" position in the market "Annual inflation increase by $\geq 2.6\%$ in June 2025?". Each specification relates these transformed positions to the central-bank-independence indicator, controlling for the full set of covariates described in the main text. *+FJP* (*–FJP*) is a dummy variable equal to one if a Polymarket agent holds a positive net "Yes" position in the market "Will Trump remove Jerome Powell in 2025?". *SOP* is a dummy variable indicating whether a Polymarket agent is a sophisticated investor, defined as being in the top 1% in terms of profit on Polymarket and having invested in more than five markets. *log(volume)* is the log of an agent's total collateral volume on Polymarket. *profit* is the agent's total profit, and *# markets* is the number of markets the agent has bet on. Standard errors are reported in parentheses. *, **, and *** denote 10%, 5%, and 1% significance levels, respectively. McFadden's $R2$ is reported.

5 Conclusion

This paper studies how beliefs about central bank independence influence investor expectations of monetary policy and macroeconomic outcomes. We use high-frequency, wallet-level data from Polymarket, a decentralized blockchain-based prediction platform. From trading behavior in FOMC rate prediction markets, we construct individual scores capturing monetary policy expectations. We link these scores to beliefs about political pressure, using positions in a market on whether Donald Trump will remove Fed Chair Jerome Powell.

Our analysis speaks to three core questions. First, do investors who expect political pressure on the Federal Reserve also expect looser monetary policy? Second, do interest rate expectations respond to macroeconomic fundamentals, such as changes in inflation expectations and recession risk? Third, are beliefs about CBI associated with expectations of long-term inflation and interest-rate outcomes, specifically in the manner predicted by the literature on the time inconsistency of optimal policy?

We find that investors who anticipate Powell's removal hold more dovish monetary policy expectations. These differences persist after controlling for individual wallet-level characteristics such as trading volume, profitability, and collateral use. In addition, agents anticipating Powell's removal also expect higher long-term Treasury yields, consistent with concerns about reduced policy credibility and long-run inflation risk. They also anticipate greater long-term recession risk, as if they view threats to central bank independence as disruptive and macroeconomically counterproductive. At a general level, these findings suggest that beliefs about central bank independence shape both near-term policy expectations and longer-term macroeconomic outlooks.

From a methodological standpoint, our study shows how Polymarket offers an informative setting in which to study individual investor beliefs using real-time, high-frequency data. Its blockchain-based transparency allows us to link measures of monetary policy expectations to beliefs about central bank independence at the individual agent/wallet level. This approach acknowledges and builds on the heterogeneity of agents and their expectations. It allows us to derive new evidence about how institutional credibility

shapes investor expectations.

From a practical policy standpoint, our findings highlight the importance of preserving central bank autonomy as a foundation for stable and credible monetary policy.

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Appendix

A Polymarket: Supplementary Material

Polymarket's Central Limit Order Book (CLOB), operates on a hybrid-decentralized model where an off-chain operator manages order matching and organization, while trade settlement and execution occur on-chain non-custodially.

The off-chain operator in Polymarket is essentially the matching engine and order book manager (i.e. an off-chain service provided by the platform). This operator is the off-chain component responsible for receiving and organizing user orders, matching buyers and sellers, and scheduling trades. It provides the functionality of a centralized exchange's order book without taking custody of assets.

This on-chain component is underpinned by a Conditional Tokens Framework (CTF) Exchange contract designed for binary markets [19], facilitating atomic swaps between binary outcome tokens (ERC1155 outcome tokens) and collateral tokens (ERC20 collateral tokens). The CTF Exchange contract supports operations such as minting and merging complementary tokens, which allows 'unification' of order books such that orders are matched with a outcome token and its complement token.

In the rest part of this section, we outline the key aspects of the CTF Exchange contract.

Assets/Tokens

- A: ERC1155 outcome token, 'Yes' outcome token.
- A': ERC1155 outcome token, complement of A ,'No' outcome token.
- C: ERC20 collateral token, USDC.

[19] See `https://github.com/Polymarket/ctf-exchange/blob/main/docs/Overview.md` for the Polymarket official document on the CTF exchange contract.

Relationship between Outcome Tokens and an Collateral Token.

$$A + A' = C$$

1 unit of outcome token A and 1 unit of its complement A' can always be merged into 1 unit of collateral token C. 1 unit of C can always be split into 1 unit of A and 1 of its complement A'.

Three matching scenarios could happen under the CTF exchange contract, called Normal, Mint, and Merge.

Scenario 1 - Normal [20]

- Maker order: participant 1 buy 100 outcome token A at \$0.50 with 50 collateral token C.
- Taker order: participant 2 sell 50 outcome token A at \$0.50.
- Match operations:
  1. Transfer 50 A from participant 2 to CTF Exchange.
  2. Transfer 25 C from participant 1 to CTF Exchange.
  3. Transfer 50 A from CTF Exchange to participant 1.
  4. Transfer 25 C from CTF Exchange to participant 2.
- Net Transfer:
  1. Transfer 50 A from participant 2 to participant 1;
  2. Transfer 25 C from participant 1 to participant 2.

Scenario 2 - Mint [21]

[20] See `https://polygonscan.com/tx/0xd91ef1f997b52821bb73958f62bcbdc36827a6632ffab7cbf0a7f48b1cf421f6` for an example of a Normal match scenario.

[21] See `https://polygonscan.com/tx/0xfed830660fd8896d5b53027f18dec0a61f9ce5c9c26e13b3cd867e5a28d6c4e5` for an example of a Mint match scenario.

- Maker order: participant 1 buy 100 outcome token A at \$0.50 with 50 collateral token C.
- Taker order: participant 2 buy 50 complement outcome token A' at \$0.50 with 25 collateral token C.
- Match operations:
    1. Transfer 25 C from participant 1 to CTF Exchange.
    2. Transfer 25 C from participant 2 to CTF Exchange.
    3. Mint 50 outcome token sets with 50 collateral tokens (50 C = 50 A + 50 A')
    4. Transfer 50 A from CTF Exchange to participant 1.
    5. Transfer 50 A' from CTF Exchange to participant 2.
- Net Transfer:
    1. Participant 1 and participant 2 both transfer 25 C to CTF Exchange.
    2. Participant 1 receive 50 A from CTF Exchange and participant 2 receive 50 A' from CTF Exchange.

Scenario 3 - Merge [22]

- Maker order: participant 1 sell 50 outcome token A at \$0.50.
- Taker order: participant 2 sell 100 complement outcome token A' at \$0.50.
- Match operations:
    1. Transfer 50 A from participant 1 to CTF Exchange.
    2. Transfer 50 A' from participant 2 to CTF Exchange.
    3. Merge 50 outcome token sets into 50 collateral tokens (50 A + 50 A' = 50 C)
    4. Transfer 25 C from CTF Exchange to participant 1.

[22] See `https://polygonscan.com/tx/0x4c2cc98fc2277cf13d09001556112782d285649420a59b8720307cf7efbb2776` for an example of a Merge match scenario.

5. Transfer 25 C from CTF Exchange to participant 2.

- Net Transfer:

1. Participant 1 transfer 50 A to CTF Exchange and participant 2 transfer 50 A' to CTF Exchange.
2. Participant 1 and participant 2 both receive 25 C from CTF Exchange.

B Additional Statistics

B.1 Summary Statistics: Net Positions of Different Markets

Table B.1: Summary Statistics: Net Positions

Event	Market	N	Mean	SD	1%	25%	50%	75%	99%
Jerome Powell out as Fed Chair in 2025?	Yes/No	3266	0.00	8003.40	-10163.62	-10.00	4.00	51.94	9512.21
Will the U.S. enter a recession in 2025?	Yes/No	8926	0.00	3910.22	-2071.65	-2.77	0.00	7.25	2391.17
10Y Treasury Yield	$\geq 5.5\%$	120	-0.00	1742.92	-5130.64	-21.52	-2.08	6.25	6722.29
	$\geq 5.7\%$	878	0.00	853.14	-428.25	-0.85	0.00	0.96	167.99
	$\geq 6.0\%$	381	0.00	721.90	-1498.51	-2.81	0.00	0.67	275.40
2025 Annual Inflation	$\geq 3\%$	260	0.00	4361.95	-7566.71	-11.69	1.19	17.33	9844.36
February 2025 Inflation	$\leq 2.7\%$	486	-0.00	332.28	-1076.59	-1.09	-0.19	-0.01	1264.19
	$\geq 3.1\%$	356	0.00	412.12	-1156.48	-1.90	-0.10	1.06	1096.80
April 2025 Inflation	$\leq 2.3\%$	265	0.00	595.49	-2223.49	-5.60	0.23	10.60	1504.37
	$\geq 2.7\%$	531	-0.00	404.69	-927.55	-9.28	-0.11	4.54	457.21
May 2025 Inflation	$\leq 2.2\%$	310	0.00	1115.41	-3162.53	-10.42	-0.40	2.34	5260.84
	$\geq 2.6\%$	170	0.00	1371.72	-3042.30	-20.78	-0.45	6.79	4266.06
November 2024 FOMC	+25bps	8856	-0.00	2324.40	-200.09	0.02	0.09	0.32	188.64
	−25bps	3657	-0.00	6642.35	-2483.86	-1.24	0.20	2.57	2373.20
	−50bps	3274	0.00	5489.70	-5222.12	-0.02	0.19	20.00	5394.60
	No change	2176	-0.00	6973.06	-5355.79	0.00	3.09	42.07	6738.93
December 2024 FOMC	+25bps	4860	-0.00	1553.78	-421.95	0.01	0.05	0.25	853.11
	−25bps	8195	-0.00	3467.89	-925.67	-1.68	0.66	6.53	1376.75
	−50bps	3634	0.00	3700.33	-1622.00	-0.03	0.10	30.38	3509.36
	No change	2784	-0.00	4042.95	-1660.17	-0.00	5.00	43.11	4252.78
January 2025 FOMC	+25bps	21086	0.00	2423.64	-53.74	-0.02	-0.01	0.13	746.26
	−25bps	5323	0.00	14212.14	-735.43	-0.09	-0.02	4.99	8163.27
	−50bps	16876	-0.00	2288.59	-49.74	-0.02	-0.00	0.01	508.02
	No change	12849	-0.00	19323.58	-1920.58	-5.19	0.07	1.70	1309.19
March 2025 FOMC	+25bps	5908	-0.00	2656.73	-330.16	-0.02	0.00	0.37	974.85
	−25bps	4650	0.00	23708.51	-2053.81	-0.17	0.06	21.48	9675.96
	−50bps	9546	0.00	5402.51	-1126.99	-0.04	0.00	0.56	1638.12
	No change	12579	-0.00	14759.01	-1066.16	-3.63	0.05	1.18	651.85
May 2025 FOMC	+25bps	5251	-0.00	2475.08	-233.69	-0.01	0.03	0.47	494.05
	−25bps	3833	0.00	33369.33	-4913.41	-0.07	2.02	42.48	32454.91
	−50bps	5326	0.00	6595.93	-1034.08	-0.15	-0.00	1.55	4355.58
	No change	4912	-0.00	27735.55	-9726.31	-5.19	0.07	1.13	10827.04
June 2025 FOMC	+25bps	6749	-0.00	3789.33	-81.47	-0.02	0.00	0.25	468.03
	−25bps	5637	-0.00	19162.50	-2939.11	-0.06	0.13	28.03	10992.45
	−50bps	7624	-0.00	3387.36	-566.08	-0.14	-0.02	0.35	947.60
	No change	5513	0.00	25651.15	-16825.46	-8.03	0.13	5.00	11279.53

Notes. This table reports summary statistics of agents' net positions across a range of Polymarket events. For each market, we report the number of unique agents (N), the mean, standard deviation (SD), and selected percentiles (1%, 25%, 50%, 75%, 99%) of net positions, denominated in USDC.

B.2 Trump Social Media Posts on Central Bank Independence

Table B.2: Donald Trump's Posts on Interest Rates and Powell (Truth Social)

Timestamp	Post Content
2025-01-29 16:17	*Because Jay Powell and the Fed failed to stop the problem they created with Inflation, I will do it by unleashing American Energy production, slashing Regulation, rebalancing International Trade, and reigniting American Manufacturing, but I will do much more than stopping Inflation, I will make our Country financially, and otherwise, powerful again! The Fed has done a terrible job on Bank Regulation. Treasury is going to lead the effort to cut unnecessary Regulation, and will unleash lending for all American people and businesses. If the Fed had spent less time on DEI, gender ideology, "green" energy, and fake climate change, Inflation would never have been a problem. Instead, we suffered from the worst Inflation in the History of our Country!*
2025-04-04 11:08	*This would be a PERFECT time for Fed Chairman Jerome Powell to cut Interest Rates. He is always "late," but he could now change his image, and quickly. Energy prices are down, Interest Rates are down, Inflation is down, even Eggs are down 69%, and Jobs are UP, all within two months - A BIG WIN for America. CUT INTEREST RATES, JEROME, AND STOP PLAYING POLITICS!*
2025-04-17 06:12	*The ECB is expected to cut interest rates for the 7th time, and yet, "Too Late" Jerome Powell of the Fed, who is always TOO LATE AND WRONG, yesterday issued a report which was another, and typical, complete "mess!" Oil prices are down, groceries (even eggs!) are down, and the USA is getting RICH ON TARIFFS. Too Late should have lowered Interest Rates, like the ECB, long ago, but he should certainly lower them now. Powell's termination cannot come fast enough!*
2025-04-21 09:41	*"Preemptive Cuts" in Interest Rates are being called for by many. With Energy Costs way down, food prices (including Biden's egg disaster!) substantially lower, and most other "things" trending down, there is virtually No Inflation. With these costs trending so nicely downward, just what I predicted they would do, there can almost be no inflation, but there can be a SLOWING of the economy unless Mr. Too Late, a major loser, lowers interest rates, NOW. Europe has already "lowered" seven times. Powell has always been "Too Late," except when it came to the Election period when he lowered in order to help Sleepy Joe Biden, later Kamala, get elected. How did that work out?*
2025-05-08 06:31	*"Too Late" Jerome Powell is a FOOL, who doesn't have a clue. Other than that, I like him very much! Oil and Energy way down, almost all costs (groceries and "eggs") down, virtually NO INFLATION, Tariff Money Pouring Into the U.S. — THE EXACT OPPOSITE OF "TOO LATE!" ENJOY!*
2025-05-13 13:43	*No Inflation, and Prices of Gasoline, Energy, Groceries, and practically everything else, are DOWN!!! THE FED must lower the RATE, like Europe and China have done. What is wrong with Too Late Powell? Not fair to America, which is ready to blossom? Just let it all happen, it will be a beautiful thing!*

Continued on next page

Table B.2 – continued from previous page

Timestamp	Post Content
2025-05-17 11:11	*THE CONSENSUS OF ALMOST EVERYBODY IS THAT, "THE FED SHOULD CUT RATES SOONER, RATHER THAN LATER." Too Late Powell, a man legendary for being Too Late, will probably blow it again - But who knows???*
2025-05-28 23:16	*"FHFA Director Pulte calls on Powell to lower interest rates"* `https://www.housingwire.com/articles/fhfa-director-pulte-calls-on-powell-to-lower-interest-rates/`
2025-06-04 08:21	*ADP NUMBER OUT!!! "Too Late" Powell must now LOWER THE RATE. He is unbelievable!!! Europe has lowered NINE TIMES!*
2025-06-04 14:00	*https://thehill.com/business/5320379-us-housing-finance-chief-tells-powell-to-lower-interest-rates/*
2025-06-18 23:56	*Too Late—Powell is the WORST. A real dummy, who's costing America $Billions!* *"Fannie, Freddie regulator: Powell should cut rates or quit"* `https://www.nationalmortgagenews.com/news/fannie-mae-freddie-mac-regulator-to-powell-cut-or-quit`
2025-06-19 10:04	*"Too Late" Jerome Powell is costing our Country Hundreds of Billions of Dollars. He is truly one of the dumbest, and most destructive, people in Government, and the Fed Board is complicit. Europe has had 10 cuts, we have had none. We should be 2.5 Points lower, and save $BILLIONS on all of Biden's Short Term Debt. We have LOW inflation! TOO LATE's an American Disgrace!*
2025-06-20 17:58	*"Too Late" Powell complains about costs, much of which were produced by the Biden Fake "Government," but he could do the biggest and best job for our Country by helping to lower Interest Rates and, if he reduced them to the number they should be, 1% to 2%, that "numbskull" would be saving the United States of America up to $1 Trillion Dollars per year. I fully understand that my strong criticism of him makes it more difficult for him to do what he should be doing, lowering Rates, but I've tried it all different ways. I've been nice, I've been neutral, and I've been nasty, and nice and neutral didn't work! He's a dumb guy, and an obvious Trump Hater, who should have never been there, I listened to someone that I shouldn't have listened to, and Biden shouldn't have reappointed him. We have virtually No Inflation, our Economy is doing really well, and will soon be doing, with the tremendous Tariff Income coming in, and Factories being built all over the Country, better than it has ever done before. If he was concerned about Inflation or anything else, then all he has to do is bring the Rate down, so we can benefit on Interest Costs, and raise it in the future when and if these "other elements" happen (which I doubt they will!). Don't say that you think there will be Inflation sometime in the future, because there isn't now but, if there is, raise the Rates! We should be at the TOP of the attached List, not the bottom. I don't know why the Board doesn't override this Total and Complete Moron! Maybe, just maybe, I'll have to change my mind about firing him? But regardless, his Term ends shortly!*

Continued on next page

Table B.2 – continued from previous page

Timestamp	Post Content
2025-06-24 01:32	*"Too Late" Jerome Powell, of the Fed, will be in Congress today in order to explain, among other things, why he is refusing to lower the Rate. Europe has had 10 cuts, we have had ZERO. No inflation, great economy - We should be at least two to three points lower. Would save the USA 800 Billion Dollars Per Year, plus. What a difference this would make. If things later change to the negative, increase the Rate. I hope Congress really works this very dumb, hardheaded person, over. We will be paying for his incompetence for many years to come. THE BOARD SHOULD ACTIVATE. MAKE AMERICA GREAT AGAIN!*
2025-06-26 14:16	*https://www.thestreet.com/economy/fannie-mae-chief-pulte-sends-savage-one-word-message-to-feds-powell*
2025-06-30 13:09	*Jerome "Too Late" Powell, and his entire Board, should be ashamed of themselves for allowing this to happen to the United States. They have one of the easiest, yet most prestigious, jobs in America, and they have FAILED — And continue to do so. If they were doing their job properly, our Country would be saving Trillions of Dollars in Interest Cost. The Board just sits there and watches, so they are equally to blame. We should be paying 1% Interest, or better!*
2025-07-02 18:10	*"Too Late" should resign immediately!* *"Fed Chair Should Be Investigated by Congress, FHFA Head Says"* https://www.bloomberg.com/news/articles/2025-07-02/fed-s-powell-should-be-investigated-by-congress-fhfa-head-says
2025-07-08 15:08	*A new Study by the Council of Economic Advisers (CEA), led by Highly Respected Chair, Dr. Stephen Miran, has found that Tariffs have had ZERO IMPACT on Inflation. In fact, the Study shows that Import Prices are actually DROPPING, just like I always said they would. The Fake News and the so-called "Experts" were wrong again. Tariffs are making our Country "BOOM." Many new Factories, Jobs, and TRILLIONS OF DOLLARS in Investments are pouring into the U.S.A. Someone should show this new Study to "Too Late" Jerome Powell, who has been whining like a baby about non-existent Inflation for months, and refusing to do the right thing. CUT INTEREST RATES JEROME — NOW IS THE TIME!*
2025-07-20 15:37	*The Wall Street Journal ran a typically untruthful story today by saying that Secretary of the Treasury, Scott Bessent, explained to me that firing Jerome "Too Late" Powell, the Worst Federal Reserve Chairman in History, would be bad for the Market. Nobody had to explain that to me. I know better than anybody what's good for the Market, and what's good for the U.S.A. If it weren't for me, the Market wouldn't be at Record Highs right now, it probably would have CRASHED! So, get your information CORRECT. People don't explain to me, I explain to them!*
2025-07-23 09:08	*Housing in our Country is lagging because Jerome "Too Late" Powell refuses to lower Interest Rates. Families are being hurt because Interest Rates are too high, and even our Country is having to pay a higher Rate than it should be because of "Too Late." Our Rate should be three points lower than they are, saving us $1 Trillion per year (as a Country). This stubborn guy at the Fed just doesn't get it — Never did, and never will. The Board should act, but they don't have the Courage to do so!*

Continued on next page

Table B.2 – continued from previous page

Timestamp	Post Content
2025-07-24 15:41	*Getting ready to head over to the Fed to look at their, now, $3.1 Billion Dollar (PLUS!) construction project. Also present will be Fed Chair Jerome Powell, Senator Tim Scott, Senator Thom Tillis, OMB Director Russ Vought, Chairman of Fannie Mae and Freddie Mac, Bill Pulte, my Appointees to the National Capital Planning Commission, James Blair and Will Scharf, and various other construction professionals.*
2025-07-24 17:22	*It was a Great Honor to tour the Renovation (and some new Construction!) of the Federal Reserve Building with Chairman Jerome Powell, Senator Tim Scott, and others. It's got a long way to go, would have been much better if it were never started, but it is what it is and, hopefully, it will be finished ASAP. The cost overruns are substantial but, on the positive side, our Country is doing very well and can afford just about anything — Even the cost of this building! I'll be watching and, hopefully, adding some expertise. As everyone knows, I renovated the Old Post Office on Pennsylvania Avenue, and it was a roaring SUCCESS. The total Construction cost was a small fraction of the Fed Building's cost, and it is many times the size. With all of that being said, let's just get it finished and, even more importantly, LOWER INTEREST RATES!*

Notes: List of Truth Social messages by President Trump related to Federal Reserve Chair Jerome Powell and pressure on interest rates. All posts are sourced from `https://rollcall.com/factbase/trump/topic/social/`.

C FOMC probability

C.1 Benchmark FOMC Probabilities

We recover the market's assessment of future FOMC decision probabilities from *Fed funds futures* prices. We use the CME FED watch's approach to construct the market implied FOMC decision probabilities with high frequency fed fund futures prices data.

The CME group provides readily available FOMC probability at daily frequency[23]. We adopt their approach and recontruct the benchmark FOMC probabilities with high frequency Fed funds futures data.

Here is an overview of the approach.

Step 1: Start with the first non-FOMC month. The futures contract price for a month without a FOMC meeting is assumed to reflect the average effective federal funds rate (EFFR) for that month. It is further assumed that the EFFR remains unchanged throughout the month T, i.e., $EFFR^{end}_{t,T-1} = EFFR^{avg}_{t,T} = EFFR^{start}_{t,T+1}$.

The implied average effective fed fund rate for any month is

$$EFFR^{avg}_{t,T} = 100 - f_{t,T}$$

where $f_{t,T}$ is the fed fund futures price for contract month T, observed at time t.

Step 2: Establish starting and ending EFFR for every month. From step 1, we obtain $EFFR^{start}_{t,T}$ and $EFFR^{end}_{t,T}$ for the first non-FOMC month in the sample. We then assume $EFFR^{start}_{t,T} = EFFR^{end}_{t,T-1}$ and $EFFR^{end}_{t,T} = EFFR^{start}_{t,T+1}$ and use the relationship to propagate values both forward and backward until every month has values for $EFFR^{Start}$, $EFFR^{End}$.

For FOMC months, the following relationship holds:

$$EFFR^{avg}_{t,T} = \frac{N}{M+N} EFFR^{start}_{t,T} + \frac{M}{M+N} EFFR^{end}_{t,T}$$

[23] See `https://www.cmegroup.com/markets/interest-rates/cme-fedwatch-tool.html?redirect=/trading/interest-rates/countdown-to-fomc.html`

where N is the number of days before FOMC meeting (include meeting date), and M is the number of days after FOMC meeting.

If we know $EFFR_{t,T+1}^{start}$, then

$$EFFR_{t,T}^{end} = EFFR_{t,T+1}^{start}$$
$$EFFR_{t,T}^{start} = \frac{EFFR_{t,T}^{avg} - \frac{M}{M+N} EFFR_{t,T}^{end}}{N/(M+N)}$$

If we know $EFFR_{t,T-1}^{end}$, then

$$EFFR_{t,T}^{start} = EFFR_{t,T-1}^{end}$$
$$EFFR_{t,T}^{end} = \frac{EFFR_{t,T}^{avg} - \frac{N}{M+N} EFFR_{t,T}^{start}}{M/(M+N)}$$

Step 3: Calculate the expected rate change. Once we have $EFFR_{t,T}^{start}$ and $EFFR_{t,T}^{end}$ for every month in the sample, we calculate the change in EFFR for the FOMC meeting month, then divide by 25bps to get the expected number of 25bps rate changes.

$$\text{E}(\#\text{ of changes})_t = \frac{EFFR_{t,T}^{end} - EFFR_{t,T}^{start}}{25 \text{ bps}}$$

Step 4: Calculate FOMC decision probabilities. Break the expected number of 25bps changes $\text{E}(\#\text{ of changes})_t$ into two parts: The whole number represents minimum number of 25bps rate changes. The decimal part indicates the probability of a larger rate change. Thus,

$$P(\text{a larger rate change})_t = |\text{decimal part}|$$
$$P(\text{no larger rate change})_t = 1 - |\text{decimal part}|$$

For example, if the expected change is 2.30, then the expected probability of a 75bps rate hike is 30% and the expected probability of a 50bps rate hike is 70%. Conversely, if the expected change is -2.30, the expected probability of a 75bps rate cut is 30% and the expected probability of a 50bps rate cut is 70%.

D Monetary Policy Expectations and Political Beliefs

We examine whether agents' beliefs about Federal Reserve independence are systematically related to their political identity. This question connects to a broader literature on partisan differences in economic expectations, which typically relies on self-reported party affiliation from survey data. While we do not observe agents' ideological affiliations directly, we proxy political orientation using revealed preferences—specifically, whether an agent holds a directional position in election-related markets, including those involving Donald Trump's candidacy and Powell's potential dismissal.

Table D.1 in Appendix D reports the full regression results. We extend the baseline specification for estimating the effect of Fed independence beliefs on monetary policy stance (see Equation 5) by including DJT, a dummy for Trump supporters. We find that DJT-classified agents tend to hold more dovish views on average. However, once we control for beliefs about Powell's removal ($+FJP$), political identity alone does not significantly moderate monetary policy expectations. The interaction terms involving DJT are generally small and statistically insignificant, suggesting that the dovish stance associated with Fed independence concerns is not simply a reflection of partisan bias. While these findings are only suggestive, they provide evidence that expectations about institutional autonomy play a distinct role. We note however that our classification strategy differs from survey-based approaches, as it relies on market behavior rather than self-identification and may therefore miss more nuanced or latent partisan beliefs.

Table D.1: Monetary Policy Stance, CBI, and Political Belief

	March 2025		May 2025		June 2025	
$+FJP$	13.576*	12.243*	15.040***	12.085***	11.606***	9.652***
	(7.011)	(7.397)	(2.152)	(2.256)	(2.514)	(2.708)
$-FJP$	-3.650	-3.337	8.493***	5.366**	-3.762	-4.161
	(7.561)	(7.499)	(2.259)	(2.424)	(2.858)	(3.106)
DJT		6.007***		6.216***		3.070*
		(1.209)		(1.414)		(1.580)
$+FJP \times DJT$		0.000		9.576		6.888
		(0.000)		(9.707)		(9.987)
$-FJP \times DJT$		-0.000		-11.450		-16.556*
		(0.000)		(7.703)		(9.432)
$+FJP \times SOP$		17.704**		-26.451***		4.092
		(7.779)		(3.396)		(9.026)
$-FJP \times SOP$		0.000**		-1.430		8.256
		(0.000)		(8.870)		(9.092)
$+FJP \times DJT \times SOP$		-0.000**		0.000***		0.000
		(0.000)		(0.000)		(0.000)
$-FJP \times DJT \times SOP$		0.000		-0.000***		0.000
		(0.000)		(0.000)		(0.000)
$log(volume)$		-0.460***		0.659***		-1.385***
		(0.106)		(0.113)		(0.086)
$profit$		0.000		0.000**		0.000***
		(0.000)		(0.000)		(0.000)
$\#markets$		0.045***		0.050***		0.128***
		(0.009)		(0.010)		(0.010)
SOP		4.563*		0.651		-1.461
		(2.499)		(2.581)		(1.730)
$const$	-0.003	2.123***	-0.236	-6.821***	-0.047	6.738***
	(0.175)	(0.754)	(0.224)	(0.732)	(0.194)	(0.558)
R-squared Adj.	0.000	0.002	0.004	0.013	0.001	0.015
N	27206	27206	16852	16852	22453	22453

Notes. The table reports coefficients from regressions of the hawk-dove percentileon agents' stance toward Federal Reserve independence, along with a set of controls. *+FJP* (*-FJP*) is a dummy variable indicating whether a Polymarket agent has positive (negative) net yes position on market 'Will Trump remove Jerome Powell in 2025?'as of the corresponding FOMC meeting date (March, May, or June 2025). *DJT* is a dummy variable indicating whether a Polymarket agent is a Trump supporter. *SOP* is a dummy variable indicating whether a Polymarket agent is a sophisticated investor, defined as being in the top 1% in terms of profit on Polymarket and having invested in more than five markets. *log(volume)* is the log of an agent's total collateral volume on Polymarket. *profit* is the agent's total profit, and *# markets* is the number of markets the agent has bet on. White heteroscedasticity-robust standard errors are reported in parentheses. *, **, and *** denote 10%, 5%, and 1% significance levels, respectively.