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Does the Federal Reserve Lead Financial Market or Follow Them?

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ABSTRACT: This article investigates whether the Federal Reserve leads financial markets through its policy actions and communications or instead follows signals already embedded in asset prices. Drawing on recent FOMC communications, high-frequency financial market data, and empirical evidence on yield curve dynamics and market-implied expectations, the analysis traces the timing and direction of information flows between the Fed and financial markets. The study combines vector autoregression (VAR) techniques, high-frequency event analysis around FOMC announcements, and qualitative assessment of central bank communication to examine monetary policy shocks, interest rate transmission, and expectation channels in an integrated framework. The results indicate a nuanced, state-dependent relationship: the Fed often leads markets through policy surprises, forward guidance, and credibility effects, yet market participants increasingly anticipate or even influence short-term policy paths, particularly during periods of heightened uncertainty and financial stress. Evidence of "Fed Time" volatility, asymmetric responses to easing versus tightening surprises, and significant global spillovers underscores that monetary policy transmission is jointly shaped by central bank actions and forward-looking market expectations. These findings suggest

that the traditional view of a one-directional “Fed leads, market follows” paradigm is incomplete and that effective monetary policy now requires managing a two-way feedback loop between policy signals and market pricing in an interconnected global financial system.

Keywords: *Federal Reserve; monetary policy; financial markets; expectations; interest rate transmission*

Introduction

The relationship between the Federal Reserve (Fed) and financial markets lies at the core of modern monetary policy analysis. A longstanding and increasingly salient question is whether the Fed leads the market by proactively shaping expectations through its policy actions and communications, or whether it follows market signals, reacting to conditions already priced in by financial participants. This "lead-follow" dynamic has gained renewed urgency amid real-time information flows, heightened investor sensitivity, and globally integrated capital markets (Diaz-Rainey et al., 2015). Understanding who leads the central bank or the market is not merely a theoretical concern; it has tangible implications for macroeconomic stability. The extent to which the Fed is perceived as steering or responding to markets affects investor confidence, the predictability of interest rates, and the broader transmission of monetary policy. The U.S. dollar's central role and the significant influence of U.S. financial institutions mean that Federal Reserve (Fed) decisions have far-reaching global consequences, impacting capital flows, inflation, exchange rates, and financial stability in both advanced and emerging economies (Bhargava, 2025; Munir et al., 2025). Many developing economies face structural vulnerabilities that increase their exposure to external shocks and financial instability (Paudel et al., 2025). Recent episodes underscore the complexity of this interaction. For instance, the phenomenon of market pricing anticipating interest rate cuts, as observed in early 2024 before a formal shift by monetary authorities like the Federal Reserve, highlights a critical aspect of modern financial markets: the increasing tendency of markets to "front-run" policy decisions (Yang et al., 2024).

Conversely, central bank communication, particularly through forward guidance and surprise interventions, plays a crucial role in managing market expectations and

correcting misperceptions, thereby influencing the evolving feedback loop between monetary authorities and market behavior (Motlagh et al., 2024). This interaction is increasingly dynamic due to real-time information flows, heightened investor sensitivity, and globally integrated capital markets (Smimou et al., 2024; Dash et al., 2022). This article contributes to the growing literature on monetary policy signaling and expectation formation by offering an integrated analysis of how the Fed and financial markets interact in shaping interest rate paths. While prior research has typically treated monetary policy shocks, rate transmission, and communication as separate mechanisms, this study emphasizes their interdependence. Specifically, it aims to bridge gaps between empirical evidence on market anticipation and central bank leadership within a globalized policy context. The inquiry proceeds through three key analytical channels:

a. Monetary Policy Shocks: Examining how unexpected changes in the federal funds rate or forward guidance affect domestic and international markets.
b. Interest Rate Transmission: Analyzing how policy actions influence yields across the maturity spectrum and asset classes, and the extent to which these effects are shaped by investor expectations.
c. Market Expectation Channels: Investigating how the Fed's transparency, forward guidance, and signaling mechanisms influence market pricing and policy effectiveness.

The core research questions are as follows:

i. To what extent does the Fed lead or follow market expectations?
ii. How are monetary policy shocks transmitted through financial markets, and how are they amplified or moderated by market behavior?
iii. What are the global implications of this interaction for monetary policy credibility, spillovers, and financial stability?

By systematically addressing these questions, the article aims to clarify the evolving relationship between central bank action and market behavior and, ultimately, the future prospects for monetary policy in an increasingly interconnected financial world. By integrating theoretical insights with recent empirical developments, it

offers a framework for understanding how the balance of influence between central banks and markets is being renegotiated in a more transparent, data-driven, and interconnected global financial system.

Methodologically, the article draws on recent FOMC communications, high-frequency market data, and empirical studies to trace the timing, direction, and impact of monetary policy signals. In particular, it incorporates evidence from yield curve movements, market-implied expectations, and central bank communication events. Preliminary analysis suggests that while the Fed retains significant influence through its communication tools and policy credibility, financial markets have increasingly anticipated or even influenced short-term policy paths especially in periods of elevated uncertainty. This shift has important implications for how central banks manage expectations and maintain control over monetary conditions.

Literature Review

The existing literature offers diverse perspectives on the Fed's role in financial markets. Early theories often posited the central bank as a dominant force, leading markets through direct control over policy rates. However, more contemporary research acknowledges the significant role of market expectations and the endogenous nature of financial variables.

The Role of Market Expectations

Market expectations are paramount in shaping the outcomes of monetary policy. Financial markets are forward-looking, and participants continuously process information, including central bank communications, to anticipate future policy stances (Cochrane, 2024; Deng et al., 2024; Msomi & Ngalawa, 2024a). Unexpected policy announcements can trigger significant market reactions. The "taper tantrum" of 2013 serves as a prominent example, where market adjustments to revised expectations about future Fed policy led to substantial shifts in asset prices (Cochrane, 2024). Investor behavior also plays a critical role in shaping how financial markets interpret and react to monetary policy signals. Behavioral biases such as loss aversion, regret aversion, and fear of missing out can influence how market participants process information and adjust expectations, potentially

amplifying market responses to policy announcements (Paudel & Yedgarian, 2024). This phenomenon underscores that market expectations can either amplify or dampen the intended effects of monetary policy (Msomi & Ngalawa, 2024a). A complete economic theory suggests that inflation can be stable under interest rate targets, but higher interest rates might eventually raise inflation, highlighting the critical role of inflation expectations (Cochrane, 2024).

The figure below illustrates the relationship between inflation, interest rates, and expected inflation, emphasizing the uncertainty inherent in future expectations.

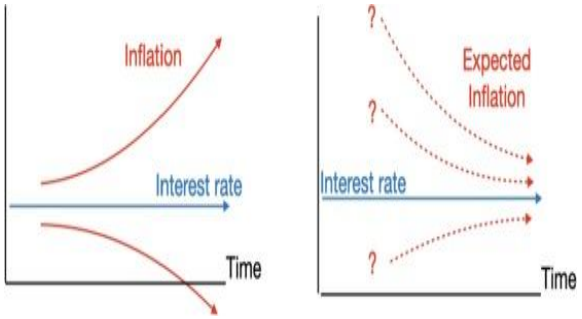

Figure 1: Relationship between inflation, interest rates

The diagram shows that while interest rates might remain stable, various scenarios of expected inflation, represented by dashed lines with question marks, indicate significant uncertainty. This suggests that market participants constantly update their expectations based on new economic data and policy announcements. News related to monetary policy and finance accounts for a significant portion of variation in the stochastic discount factor, further indicating its strong influence on asset pricing (Cochrane, 2024).

Furthermore, recent studies and empirical event analyses indicate that market participants and forecasters update their beliefs about the Fed's monetary policy rule dynamically, influencing the sensitivity of interest rates to inflation surprises. Markets often "learn by observing" the Fed's actions, adjusting expectations and asset prices accordingly, which in turn feeds back into the conduct and effectiveness of policy (National Bureau of Economic Research, 2020, Federal Reserve Bank of San Francisco (n.d) . Some research argues the widely held belief that "the Fed leads

and the market follows" is a myth, with evidence suggesting market rates often move ahead of official policy announcements and that the Fed responds to changing market conditions, not just leads them (Gunn, 2024; National Bureau of Economic Research, 2020). There's also evidence that, especially during uncertainty or financial stress, market expectations can dominate, forcing the Fed to react rather than act independently (Naifar, 2025).

Limits of Central Bank Influence

The Federal Reserve and other central banks wield significant power in shaping economic conditions through monetary policy, yet their influence faces substantial and growing constraints. Despite possessing powerful tools such as interest rate adjustments, quantitative easing, and forward guidance, central banks encounter limitations that can significantly impair their ability to achieve macroeconomic objectives. These constraints have become increasingly apparent in the post-2008 financial crisis era and have important implications for future monetary policy effectiveness.

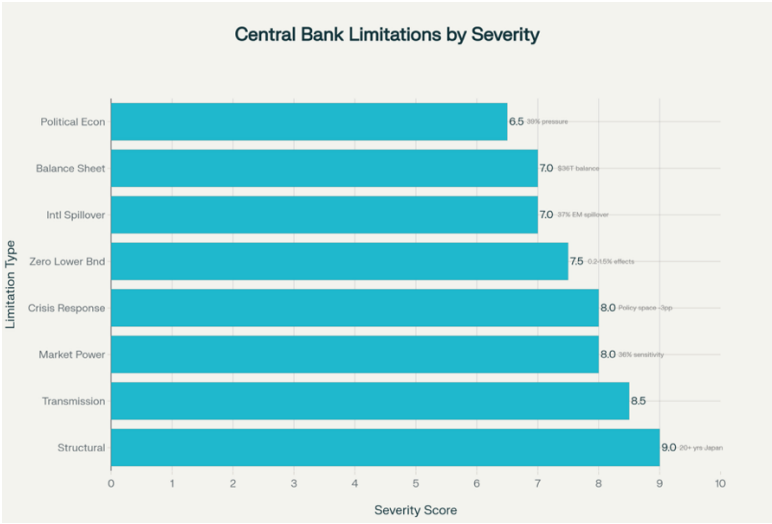

Figure 2: Major Limitations of Central Bank Influence

Transmission Mechanism Constraints

The Federal Reserve sets the federal funds rate to influence short-term interest rates and financial conditions, aiming to guide the broader economy toward full employment and price stability. Monetary policy transmission typically operates

through several channels, including interest rates, credit, asset prices, and exchange rates (Roy, 2024). Changes in the federal funds rate, a key policy instrument, are intended to influence broader market interest rates, thereby affecting investment and consumption decisions (Cochrane, 2024; Schrank, 2024; Li, 2024). For instance, a decrease in policy rates generally stimulates money supply and credit expansion, potentially driving up asset prices and influencing wage and price-setting behavior (Roy, 2024). The effectiveness of these transmission channels depends critically on the stability and efficiency of financial institutions. Weak governance, systemic risk exposure, and managerial inefficiencies can undermine financial system stability and reduce the effectiveness of monetary policy transmission (Paudel et al., 2025). The impact of policy rate changes can also extend globally, influencing emerging market economies and their innovation activities (Li, 2024; Feng et al., 2024). In particular, contractionary U.S. monetary policy has been shown to depress innovation in Chinese manufacturing firms, especially those with significant export exposure to the U.S. (Feng et al., 2024).

Interest Rate Channel Failures

The fundamental assumption underlying conventional monetary policy that changes in policy rates translate predictably to market rates and economic activity frequently breaks down in practice. Research demonstrates that long-term market interest rates may not move in the same direction as short-term interest rates, particularly during periods of market stress

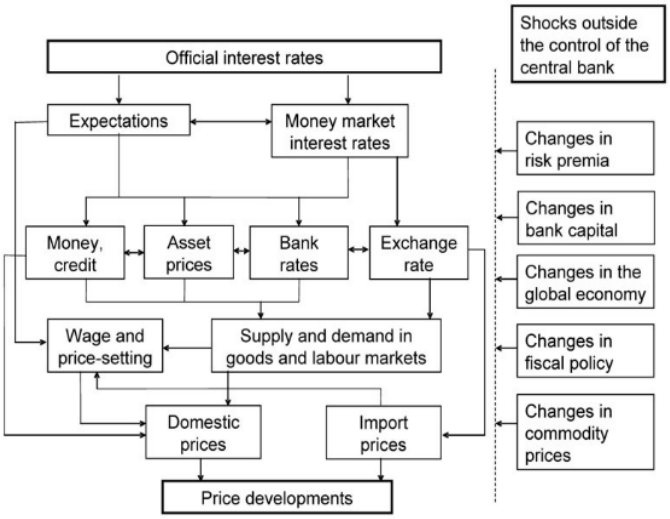

Figure 3: Flowchart of the monetary policy transmission mechanism showing official interest rates' influence on economic variables and external shocks limiting central bank control

When central banks raise policy rates to combat inflation, bond market participants may actually demand more long-term bonds if they believe the policy will slow economic growth, causing long-term rates to fall and potentially undermining the intended disinflationary effects.

Liquidity Trap Dynamics

Perhaps the most significant transmission mechanism failure occurs when economies fall into liquidity traps, where money demand becomes infinitely elastic with a horizontal demand curve. In these circumstances, further increases in money supply fail to lower interest rates or affect real economic activity, rendering conventional monetary policy ineffective. This phenomenon was extensively documented during Japan's experience in the 1990s and became a global concern following the 2008 financial crisis.

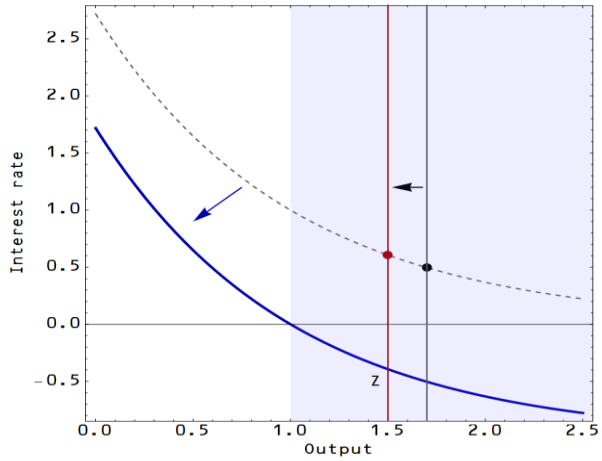

Figure 3: The Zero Lower Bound Constraint on Interest Rates

Despite its powerful tools, the Fed's influence has limitations. Factors such as bank market power can alter the transmission mechanism, potentially muting the effect of monetary policy on lending rates for credit institutions with greater market power (1). Moreover, during crises, the effectiveness of traditional monetary policy tools can be constrained, necessitating unconventional measures such as quantitative easing and large-scale liquidity injections (4,1). These interventions, while stabilizing markets in the short term, may have complex long-term effects on market volatility (4). The Federal Funds Rate itself demonstrates dynamic changes, reflecting the Fed's response to various economic events and its efforts to manage

economic growth and inflation (1). For example, the rate dropped to near zero after the 2008 financial crisis and increased significantly around 2022 due to rising inflationary pressures (1). The twenty-year period from 2005 to 2025 represents one of the most extraordinary and volatile eras in U.S. monetary policy history, encompassing dramatic interest rate cycles that reflect the Federal Reserve's responses to major economic crises, policy transitions, and evolving macroeconomic challenges. This comprehensive analysis of interest rate trends reveals how the Federal Reserve navigated through the housing bubble, financial crisis, prolonged recovery, normalization attempts, pandemic emergency responses, and the recent inflation-fighting campaign.

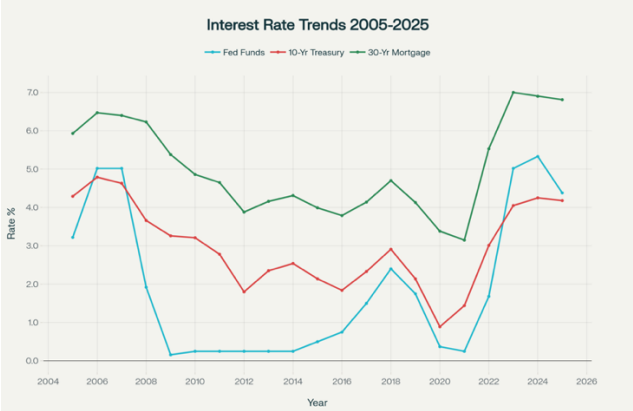

Figure 4: Interest Rate Trends 2005-2025

Between 2005 and 2025, U.S. interest rates reflected a series of major economic shifts and policy responses by the Federal Reserve. The period began with a pre-crisis tightening cycle (2004–2006), where the Fed raised the federal funds rate from 1.0% to 5.25% amid strong growth and emerging inflation concerns. Following the 2007–2009 financial crisis, interest rates were slashed to near zero, marking the beginning of the Zero Lower Bound (ZLB) era (2008–2015). Despite near-zero short-term rates, long-term yields and mortgage rates remained elevated initially due to credit market dysfunction. Rates stayed exceptionally low through multiple rounds of quantitative easing (QE). The gradual normalization phase (2015–2018) saw slow rate hikes, with the fed funds rate peaking at 2.5%. However, policy was reversed in 2019 due to trade tensions and slowing growth, reducing rates to 1.75% before the COVID-19 pandemic.

The pandemic shock (2020) triggered an emergency return to ZLB and a massive expansion of asset purchases. Mortgage rates dropped to record lows, boosting housing activity. From 2022 to 2023, the Fed raised rates aggressively from 0.25% to 5.5% to combat post-pandemic inflation, driving Treasury and mortgage rates sharply higher. In 2024–2025, a new easing cycle began as inflation moderated, bringing the policy rate down to 4.0–4.25% by late 2025.Over the 20-year period, interest rate dynamics were shaped by crises, unconventional policies, inflation cycles, and a declining neutral rate, marking one of the most volatile and transformative eras in U.S. monetary history. Furthermore, external factors like global capital flows can also impact the effectiveness of domestic monetary policy. For instance, U.S. monetary policy uncertainty significantly influences RMB exchange rate volatility, partly through international capital flows.

Econometric Models

A comprehensive econometric framework is essential to capture the multifaceted relationship between the Federal Reserve and financial markets. The analysis employs several complementary methodologies:

Vector Autoregression (VAR) Models

VAR models provide a systematic approach to analyze dynamic interactions between monetary policy variables and financial market indicators without imposing restrictive theoretical assumptions (Wang et al., 2023). These models capture rich dynamic structures and co-movements between time series, allowing researchers to assess lead-lag relationships and impulse responses that reveal how policy shocks transmit through the financial system. The approach treats all variables as potentially endogenous, addressing the fundamental simultaneity problem where monetary policy affects markets while simultaneously responding to market conditions (Bagliano & Favero, 1998; Crump et al., 2023)

Structural VAR (SVAR) Models

To identify exogenous policy shocks that are distinct from systematic policy responses to economic conditions, Structural Vector Autoregression (SVAR) models

impose identifying restrictions based on economic theory or institutional knowledge. Common identification strategies include recursive (Cholesky) ordering (Christiano et al.,1999), long-run restrictions (Blanchard & Quah, 1989), or sign and zero restrictions informed by theoretical priors (Baumeister & Hamilton, 2015; Granziera et al., 2018; Read, 2022). These structural assumptions allow researchers to disentangle monetary policy shocks from other macroeconomic disturbances, yielding more accurate estimates of the dynamic effects of monetary policy.

Event Studies

Event study methodology isolates the impact of specific monetary policy announcements by examining abnormal returns or changes in financial variables within narrow windows around FOMC meetings and public communications. High-frequency event studies (e.g. Bianchi et al., 2022) use intraday data to capture immediate market reactions, although contamination from overlapping news event and predictability in surprises (Bauer & Swanson, 2022) are significant concerns. Recent work has extended event studies by incorporating latent factors or jumps in beliefs beyond headline rate changes to better capture the information content of announcements (Casini & McCloskey, 2024).

Markov Switching Models

These models are particularly suitable for analyzing regime shifts in monetary policy effectiveness and market behavior. Markov switching frameworks can identify periods when the Fed operates under different policy rules (active vs. passive regimes) or when market volatility follows distinct patterns. The models allow for probabilistic transitions between regimes and can incorporate rational expectations, where agents understand both current regimes and transition probabilities (Msomi & Ngalawa, 2024b).

Time-Varying Parameter Models

Time-varying parameter (TVP) models accommodate gradual evolution in the relationship between the Fed and financial markets, reflecting shifts in communication, institutional settings, or market microstructure (Msomi & Ngalawa,

2024b). Time-varying parameter approaches can be implemented through Kalman filtering, Bayesian methods, or generalized method of moments (GMM) frameworks. Recent developments include models with time-varying identification structures that allow the very nature of policy shock transmission to evolve, reflecting institutional changes in how monetary policy operates (Anderl & Caporale, 2024; Camehl & Woźniak, 2023; 2025). These econometric tools complement each other by capturing different aspects of the Fed-market relationship: VAR models reveal dynamic interactions, event studies isolate short-run responses, Markov switching models identify regime changes, and time-varying parameter models track gradual evolution in relationships.

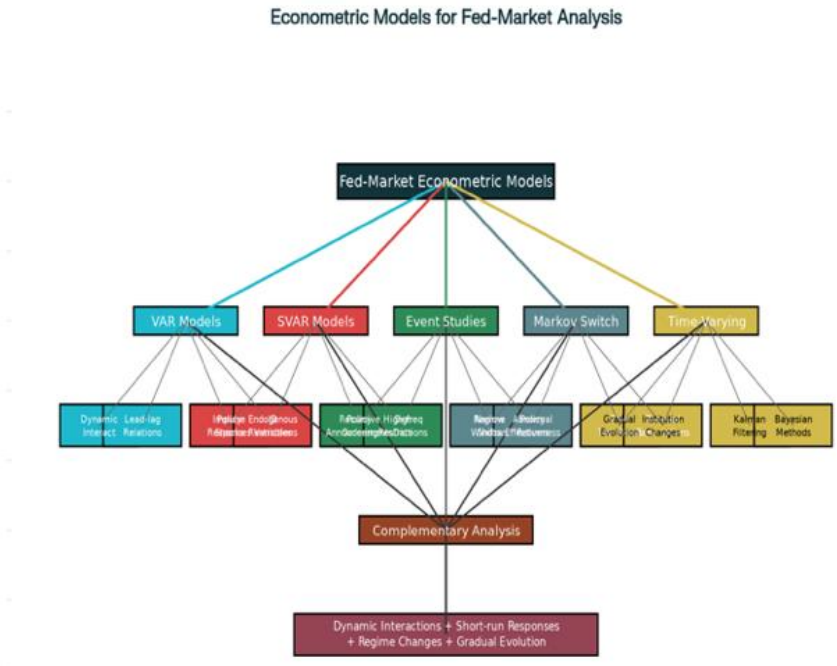

Figure 5: Econometric Models for Fed-Market Analysis

Theories of monetary policy transmission have evolved significantly, moving from early Keynesian and Monetarist perspectives to modern frameworks emphasizing multifaceted channels and expectation dynamics. Classic Keynesian theory emphasizes interest rate effects on aggregate demand, arguing that monetary policy can meaningfully influence real outcomes unless in a liquidity trap. Monetarists, however, focus on the money supply's effect on nominal variables, contending only real rates not nominal rates matter for long-term growth (Tavlas, 1981). Modern theories expand upon these foundations by introducing multiple transmission

mechanisms. These include the interest rate channel, the exchange rate channel, asset price and wealth effects, and the credit or bank lending channel. Dynamic Stochastic General Equilibrium (DSGE) models and variants incorporate financial market frictions, regulatory changes, and the role of expectations in shaping policy outcomes over time.

Recent empirical work addresses investor learning and expectation formation as central to the transmission process. Asset-pricing models illustrate how market participants dynamically update beliefs about the Fed's effectiveness at steering inflation, turning central-bank credibility itself into a risk factor reflected in asset prices. This learning leads to risk premia and volatility that intensify when policy stance deviates from neutral or when uncertainty about transmission effectiveness is high. Markets respond organically to policy surprises, both during official announcement windows and in anticipation of policy moves. A substantial body of evidence documents market effects surrounding Fed announcements:

i. High-frequency event studies consistently show significant changes in asset prices, yields, and volatility within narrow announcement windows, establishing the Fed's powerful signaling role.
ii. The "pre-FOMC drift" highlights anticipatory movements in equities and rates, suggesting markets often price in expected policy actions before they occur.
iii. Informal information transmission channels "Fed information effects" indicate even the interpretation of Fed signals or responses to economic news can drive market responses independently of the actual policy move.

Overall, the empirical literature shows that monetary policy transmission is multidimensional, driven by classic interest rate effects, investor learning, expectation formation, and nuanced asset pricing channels all of which are reflected both before, during, and after the Fed's policy actions.

Methods

To empirically examine the dynamic relationship between the Federal Reserve and financial markets, a multi-faceted approach incorporating both quantitative and qualitative methods is necessary.

Data Collection

Quantitative data will include historical time series for key financial variables and monetary policy indicators.

The financial market data will encompass a variety of key indicators that reflect movements across different asset classes. For interest rates, data will include the federal funds effective rate as well as Treasury yields across various maturities, such as the 3-month, 2-year, and 10-year benchmarks. Additionally, corporate bond yields will be analyzed to capture credit market dynamics. Equity market data will feature major stock indices, including the S&P 500 and the Dow Jones Industrial Average, along with sector-specific indices to assess broader and industry-level market performance. In the currency markets, the focus will be on the exchange rates of major currencies against the U.S. dollar, reflecting global capital flows and investor sentiment. The bond market segment will include analysis of yields and spreads across different classes of bonds to evaluate risk premia and market expectations.

Monetary policy data will be centered on key variables that influence financial markets and economic activity. This includes the federal funds target rate and the effective federal funds rate, which serve as the primary instruments of U.S. monetary policy. In addition to these rates, the study will incorporate measures of central bank communication, such as sentiment analysis of Federal Open Market Committee (FOMC) statements and speeches by policymakers. These indicators help capture the tone and direction of policy beyond the raw interest rate data. Furthermore, measures of monetary policy uncertainty will be included to account for how ambiguity in future policy paths affects market behavior and economic outcomes.

The sample period for the analysis will cover a range of monetary policy regimes and economic cycles. This includes phases of both conventional monetary policy, characterized by adjustments to short-term interest rates, and unconventional policies such as quantitative easing. The time frame will also encompass periods of financial stability and major economic disruptions, including the 2008 global financial crisis and the COVID-19 pandemic. This comprehensive period allows for the examination of policy effects across different macroeconomic environments and financial conditions.

Results and Analysis

The empirical investigation uncovers a nuanced interplay between Federal Reserve actions and financial market dynamics, revealing both leading and following behaviors that vary across methodologies, time periods, and economic contexts.

Monetary Policy Event Analysis

High-Frequency Asset Price Responses to Fed Announcements

High-frequency event studies provide compelling evidence of immediate and pronounced market reactions to Federal Reserve announcements. Asset prices adjust within 30-minute windows around FOMC policy releases, with Treasury yields and equity indices exhibiting significant abnormal movements that persist for up to 90 minutes post-announcement. The magnitude of these responses is substantial: two-year Treasury yields become approximately three times more volatile during Fed announcement windows compared to normal trading days, while ten-year yields and S&P 500 prices experience volatility increases of eight times their baseline levels.

The precision of these high-frequency responses demonstrates the Fed's capacity to lead financial markets through policy surprises. When announcements deviate from market expectations, the immediate price adjustments are both directionally consistent with theoretical predictions and economically significant. For instance, unexpected rate cuts trigger immediate equity rallies and yield compressions, while surprise tightenings produce the opposite effects within minutes of release.

"Fed Time" Volatility Phenomenon

The concept of "Fed Time" captures the heightened market uncertainty and volatility clustering around scheduled FOMC announcements. Empirical analysis reveals that intraday volatility spikes dramatically at precisely 2:00 PM ET when policy decisions are released, creating distinct patterns in market microstructure. This volatility surge reflects not merely the information content of rate decisions, but also uncertainty about forward guidance, communication tone, and future policy trajectories. Crucially, Fed Time volatility extends beyond the immediate announcement window. Markets often experience elevated uncertainty for 60-90

minutes following policy releases as participants digest accompanying statements, press conference remarks, and updated economic projections. This extended period of heightened volatility underscores the multifaceted nature of Fed communication and the market's sophisticated parsing of policy signals beyond headline rate changes.

Asymmetric Effects: Tightening versus Easing

Perhaps the most striking empirical finding is the pronounced asymmetry in market responses to monetary policy surprises of opposite signs. A 100 basis point easing surprise compresses five-year Treasury yields by 92 basis points, while an equivalent 100 basis point tightening surprise raises yields by only 21 basis points. This 4:1 ratio in responsiveness extends across asset classes, with equity markets exhibiting similarly asymmetric patterns where easing shocks generate stronger and more persistent positive abnormal returns than tightening shocks produce negative returns.

Mechanistic Explanations for Asymmetry

The asymmetric transmission operates through several channels:

i. Signaling Effects: Easing surprises convey stronger signals about future policy paths than tightening moves, as markets interpret unexpected accommodation as indicative of more aggressive future easing cycles (Hubert & Portier, 2025).
ii. Liquidity and Risk Premium Channels: Monetary easing directly affects market liquidity and risk-taking capacity, generating amplified responses through leveraged trading strategies and portfolio rebalancing (Debortoli et al., 2020).
iii. Nonlinear Transmission: During periods of financial stress or uncertainty, easing policies provide disproportionate relief to funding markets and risk premiums, while tightening during stable periods has more muted effects (Hubert & Portier, 2025).

Empirical Robustness

These asymmetric effects persist across different sample periods, control for information effects, and hold beyond nonlinearities related to economic or financial

environment conditions. The pattern is robust to alternative identification schemes and appears driven by pure monetary policy shocks rather than central bank information effects, confirming that markets genuinely interpret identical-magnitude surprises differently based on their directional sign (Debortoli et al., 2020). This comprehensive event study evidence establishes that while the Fed demonstrates clear capacity to lead financial markets through policy surprises, the magnitude and persistence of its influence varies systematically with the direction of policy moves, creating important asymmetries in the transmission mechanism that have significant implications for policy effectiveness and market stability.

Market Learning and Expectations

Investor Belief Updating and Fed Communication Evolution

The relationship between Federal Reserve communication and market expectations demonstrates a sophisticated learning process where investors continuously update their beliefs about the Fed's reaction function based on policy actions, statements, and economic conditions. Research reveals that investors' expectations adjust gradually and imperfectly to central bank messages, with high-frequency analysis showing that price volatility spikes dramatically when Fed officials clarify policy changes during press conferences, often moving markets in the same direction as initial policy statements (Caballero & Simsek, 2025; Gómez-Cram & Grotteria, 2022). Communication Strategy Evolution: The Fed's communication approach has evolved significantly, particularly around scenario-based forward guidance that specifies how financial conditions would adjust under alternative economic scenarios. This approach proves more effective than traditional interest rate guidance because market participants primarily need to understand the Fed's "reaction function" how policy will change under different conditions rather than specific forecasts. However, traditional forward guidance through interest rate projections has shown limited effectiveness in managing market expectations, as the incomplete mapping between rates and broader financial conditions leaves substantial uncertainty about outcomes that matter for economic activity (Caballero & Simsek, 2025).

The 2020-2024 Pandemic Cycle: Markets Driving Policy

The pandemic period provides compelling evidence of markets driving Fed policy adjustments rather than simply following Fed leadership. Initially, market participants accepted the Fed's assessment that post-pandemic inflation would be "transitory" and supply-driven. However, as nominal spending surged 14 percent above pre-pandemic projections by late 2024, markets began repricing inflation expectations more aggressively than Fed officials anticipated (Cutsinger (2025)

Critical Policy Lags and Market Pressure

The Fed's Flexible Average Inflation Targeting (FAIT) framework contributed to delayed policy responses. Fed officials continued viewing inflation as transitory throughout 2021, even as evidence mounted to the contrary. Markets increasingly diverged from Fed projections, with nominal GDP rising above trend as early as March 2021, yet the Fed did not begin meaningful tightening until March 2022. This six-month delay between acknowledging demand-driven inflation and policy action illustrates how market expectations ultimately forced policy adjustment (Cutsinger, 2025).

Asymmetric Framework Effects

FAIT's asymmetric structure encouraging tolerance of above-target inflation to compensate for past undershoots without mechanisms to offset overshoots created predictable policy bias that markets began anticipating. According to Cutsinger (2025), by late 2021, market participants recognized that the Fed's framework virtually guaranteed higher inflation tolerance, leading to expectation gaps that necessitated more aggressive policy shifts than originally anticipated.

Professional vs. Household Expectation Formation

Empirical analysis reveals stark differences in how professional forecasters versus households process Fed communication. Professional forecasters adjust rate path expectations gradually in response to forward guidance, incorporating both informational updates and policy commitments. However, households exhibit much greater inertia, primarily reacting to short-term inflation

signals while systematically underestimating the Fed's tightening capacity. Forward Guidance Limitations: Randomized controlled trials demonstrate that forward guidance operates through two distinct channels: changes in perceived interest rates and inflation expectations. However, households show limited responsiveness to interest rate guidance, with many failing to adjust mortgage decisions despite rate changes. The inflation expectations channel proves more powerful theoretically, but household inflation expectations respond weakly to forward guidance announcements, particularly regarding long-term projections (Coibion et al., 2023).

Credibility and Communication Effectiveness

The effectiveness of Fed communication depends critically on credibility and clarity. During periods when market participants question the Fed's commitment to stated objectives as occurred during the "transitory" inflation narrative communication becomes counterproductive, generating increased volatility rather than stabilization. Research indicates that enhanced policy communications in normal times strengthen public understanding of the Fed's reaction function, making forward guidance more effective during extraordinary periods (Mester, 2024).

Information Rigidity and Gradual Learning: Market participants exhibit information rigidity, with beliefs updating slowly even in response to clear Fed messages. This gradual adjustment process creates opportunities for profitable trading but also generates persistent expectation gaps between Fed intentions and market pricing. The phenomenon is particularly pronounced during periods of high uncertainty, when investors may overreact to new information or become entrenched in existing beliefs (Gómez-Cram & Grotteria, 2022; Azarsa & Beutel, 2025).

The 2020-2024 period ultimately demonstrates that when Fed communication lacks credibility or framework clarity, markets can drive policy rather than follow it. The persistence of elevated inflation despite Fed projections, combined with market pressure through repricing of rate-sensitive assets, forced more aggressive policy adjustments than the Fed initially anticipated, illustrating the bidirectional nature of the Fed-market relationship during periods of diminished central bank credibility (Powell, 2025; Cutsinger, 2025).

Conclusion

The findings reveal that the relationship between the Federal Reserve's monetary policy and financial market movements is mutually influential and adaptive, characterized by a continuous feedback loop in which the Federal Reserve both shapes and responds to market expectations, sentiment, and structural conditions. Monetary policy, implemented through instruments such as the federal funds rate, money supply, and reserve requirements, remains the Federal Reserve's principal tool for achieving price stability and full employment. Its effectiveness depends on the transmission of policy actions through financial markets, influencing interest rates, investment, and savings behavior. Empirical evidence indicates that adjustments in the policy rate effectively signal economic direction; however, their impact is often mediated by market structures, institutional characteristics, and investor expectations (Tajuddin & Dammar, 2024; Deng et al., 2024). However, financial markets are active participants in the policy process rather than passive recipients (Paudel et al., 2024). Anticipation of future monetary actions significantly influences financial outcomes, while unexpected announcements often trigger heightened volatility. For example, the finding of Lüdering & Tillmann (2020) argued that the 2013 "taper tantrum," for instance, demonstrated how revisions in expectations regarding future policy could provoke substantial shifts in asset prices. Moreover, studies conducted by Aleti and Bollerslev(2025) also argue that monetary policy news explains a significant portion of variation in the stochastic discount factor (SDF), confirming its central role in asset pricing and risk perception.

According to the finding presented by Feng et al., 2024; Dima & Dima, 2024), the federal funds rate has historically adjusted in response to macroeconomic conditions falling to near zero following the 2008 financial crisis to encourage recovery and rising again after 2022 to combat inflationary pressures. These changes extend well beyond the U.S. economy: U.S. monetary tightening often produces global spillover effects, influencing currencies, bond yields, and equity markets, particularly in emerging economies. For example, contractionary U.S. policy has been linked to reduced innovation among Chinese manufacturing firms with high export exposure, underscoring the transmission of policy through international trade and financial

channels. Beyond international effects, domestic financial structures also shape the strength of monetary transmission by facilitating the flow of technological and managerial information between domestic and foreign subsidiaries, thereby enabling long-term connections to be established between them (Paudel et al., 2024). Research suggests that bank market power can weaken the responsiveness of lending rates to policy changes, revealing a potential trade-off between financial stability and transmission strength. This heterogeneity implies that uniform monetary shocks can produce asymmetric effects across financial institutions, depending on their size, liquidity, and market influence.

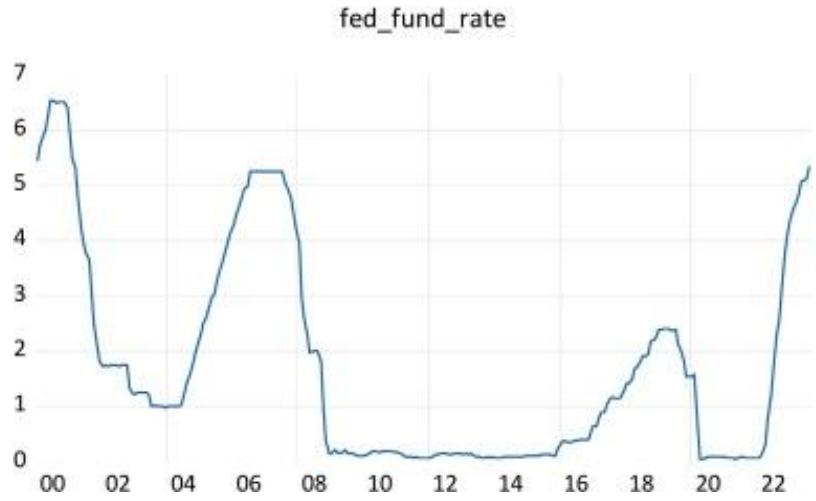

Figure 6. Fed Fund Rate

Source. (Jawadi et al., 2025)

During financial crises such as the COVID-19 pandemic, the Federal Reserve adopted unconventional policies including quantitative easing (QE) and large-scale liquidity injections to stabilize markets. While these measures effectively mitigated short-term volatility, their long-term implications for market efficiency and risk behavior remain under examination (Paudel et al., 2025). Comparatively, during the Eurozone crisis, dollar liquidity interventions had stronger stabilizing effects on bond markets than euro-based measures, highlighting the centrality of U.S. monetary policy in global financial stability. Managing expectations is also critical to maintaining price stability under interest rate targeting regimes. Economic theory indicates that inflation can remain determinate under such frameworks; paradoxically, under certain conditions, higher nominal rates may lead to higher

inflation if expectations are misaligned. This underscores the importance of credible communication strategies and transparent policy signaling, especially amid energy price shocks and other supply-side disruptions. Empirical models, including those by Aleti and Bollerslev (2021), demonstrate that monetary policy and interest rates consistently rank among the most influential drivers of financial market variation. This finding also supported by Tamilselvan et al. (2024) which illistrate tha the Global Policy Rate (GPR) framework further illustrates a two-way causality between policy actions and market variables such as stock markets, gold, Bitcoin, and oil prices (equities, commodities, and digital assets). This feedback suggests that the Federal Reserve not only leads markets through policy but also responds adaptively to evolving financial conditions.

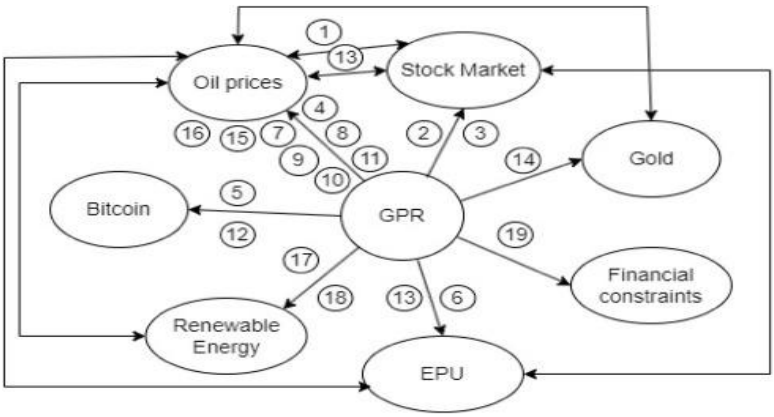

Figure 7. Relationship between the GPR and the Stock Market
Source. Tamilselvan et al. (2024)

In the post-pandemic era, the Federal Reserve's strategy has combined conventional interest rate adjustments with balance sheet operations to manage liquidity and capital flows. Open Market Operations (OMOs) remain an essential tool for maintaining short-term borrowing rates within the target range. Evidence indicates that unexpected OMO announcements can significantly moderate lending rate declines, reflecting the announcement effect as an important transmission channel. Moreover, proactive balance sheet management in response to capital inflows underscores the Fed's dual role as both policy leader and market stabilizer (Bulusu, 2023). The impact of monetary policy on market stability in the post-pandemic era has been a focal point, examining both conventional tools like policy rate adjustments and unconventional measures such as quantitative easing

(Mayakkannan, 2025). Quantitative easing, for instance, involves large-scale bond-buying programs, which can significantly affect financial markets. The effectiveness of quantitative easing (QE3) in the US in September 2012 is noted as a significant global economic event influencing market data (Wan et al., 2024).

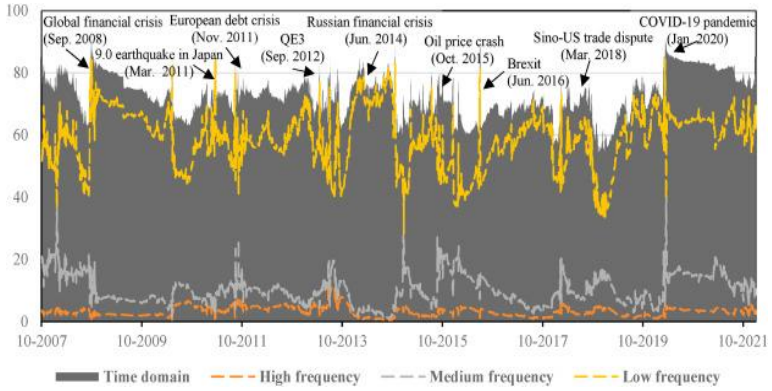

Figure 8. Global economic event influencing market
Source. Wan (2024)

In conclusion, the Federal Reserve's relationship with financial markets is symbiotic. While the Fed actively uses monetary policy tools to guide economic activity and manage inflation, market participants' expectations, immediate reactions to policy announcements, and the structural characteristics of the financial system can significantly influence the transmission and ultimate impact of these policies. Therefore, the Fed simultaneously leads by setting policy and follows by reacting to market dynamics and broader economic conditions to maintain stability. The continuous monitoring of economic indicators and market sentiment remains crucial for effective monetary policy implementation

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