Heterogeneous Effects of Monetary Policy on Expenditure Across Income Strata

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Abstract

This research proposal aims to explore the microeconomic impacts of information shocks originating from monetary policy announcements on consumer spending across different income strata. Despite a rich body of literature on the macroeconomic effects of monetary policy, less attention has been paid to how these policies influence individual consumer behaviors, particularly in response to the non-policy information revealed during policy announcements. Utilizing a Structural Vector Autoregression (SVAR) model, this study will isolate the effects of information shocks from standard monetary policy actions to analyze their impact on consumer expenditure patterns. The proposed research will employ high-frequency data from monetary policy announcements, alongside consumer spending data segmented by income levels, to estimate impulse response functions that reveal the dynamic effects of information shocks. By focusing on different income groups, this study seeks to provide nuanced insights into the differential economic behaviors that contribute to broader economic inequality issues. The findings are expected to offer valuable implications for policymakers regarding the communication strategies of central banks and their potential unintended effects on economic disparities. This research not only contributes to theoretical economic discussions but also enhances practical understanding crucial for crafting equitable economic policies.

Keywords: *Monetary Policy, Information Shocks, Consumer Spending, Income Inequality, Structural Vector Autoregression (SVAR), High-Frequency Data.*

Heterogeneous Effects of Monetary Policy on Expenditure Across Income Strata

Monetary policy plays a critical role in shaping economic outcomes across the globe. Central banks, such as the Federal Reserve in the United States, utilize monetary policy primarily to manage inflation and stabilize the currency. However, the ramifications of these policies extend far beyond these macroeconomic targets, influencing various aspects of economic life, including consumer behavior and spending across different income strata. While the traditional focus of monetary policy research has often been on its impact on broad economic indicators such as GDP growth, unemployment, and inflation, recent developments have shifted attention towards understanding its microeconomic impacts, particularly through the lens of information shocks.

Monetary policy announcements are not merely about shifts in interest rates or forward guidance; they also communicate crucial information about the central bank's assessment of the economic outlook. This dual nature of policy announcements can lead to what are termed as "information shocks," where the information revealed influences expectations and behaviors independently of any actual policy adjustments (Jarociński and Karadi, 2020). Jarociński and Karadi (2020) provide a foundational framework for understanding these phenomena, showing how central bank communications can disentangle policy shocks from information shocks using high-frequency data (Jarociński and Karadi, 2020).

The study of information shocks is particularly pertinent given the varying levels of access to and interpretation of information across different income groups. Lower-income households may react differently to monetary policy announcements compared to higher-income households due to differences in financial literacy, access to financial markets, and the proportion of discretionary spending. Nakamura and Steinsson (2018) emphasize the substantial impact of the informational component of monetary policy on public expectations and behaviors, suggesting that these shocks

could have pronounced effects on consumer spending patterns (Nakamura and Steinsson, 2018). Furthermore, the microeconomic perspective on monetary policy effectiveness is crucial for understanding the broader implications of economic policy on social equity and income distribution. Lucca and Moench (2015) investigate the anticipatory effects on stock prices before Federal Open Market Committee announcements, suggesting that even the expectation of policy change, irrespective of the actual decisions, can affect market behavior (Lucca and Moench, 2015). This anticipatory behavior likely extends to consumer spending, potentially exacerbating or mitigating economic inequality.

This research aims to delve deeper into the microeconomic impacts of monetary policy by focusing on how information shocks influence consumer expenditure across different income levels. Using a Structural Vector Autoregression (SVAR) model, this study will isolate the specific effects of information shocks from those of traditional monetary policy actions (Sims, 1980). This approach not only follows the methodological advancements in the field, as outlined by Sims (1980) in his seminal work on using vector autoregressions in macroeconomics (Sims, 1980), but also extends these techniques to capture the nuanced impacts of policy on micro-level economic behavior.

Moreover, to quantify inequality in consumption, the Atkinson index will be employed, providing a robust measure of economic disparity that accounts for variations in consumption patterns. This research will utilize data on consumption from the Consumer Expenditure Survey (CE), allowing for a detailed analysis of how different income groups adjust their spending in response to monetary policy information shocks.

Through this research, we seek to contribute to a more nuanced understanding of monetary policy's reach and effectiveness, particularly its unintended consequences on different segments of the

population. The insights from this study could provide valuable guidance for policymakers on how to structure monetary policy announcements to mitigate adverse impacts on inequality and enhance economic welfare across all income groups.

Literature Review

Monetary Policy and Information Shocks

Monetary policy significantly influences economic variables, with extensive research focusing on macroeconomic outcomes such as inflation, unemployment, and GDP growth. However, the microeconomic impacts, especially those driven by information shocks—unexpected news revealed during monetary policy announcements that affect agents' expectations—are less explored.

Jarociński and Karadi (2020) provide a seminal contribution by distinguishing between conventional monetary policy actions and central bank information shocks. They analyze the immediate effects of these shocks on financial markets and find that information shocks can sometimes have stronger effects than traditional policy instruments like interest rate changes (Jarociński and Karadi, 2020). Their study underscores the importance of distinguishing between these types of shocks when analyzing the overall impact of monetary policy.

Barakchian and Crowe (2013) propose a new identification scheme using factors extracted from Fed Funds futures to measure exogenous changes in policy, recovering the contractionary effect of monetary tightening on output. This highlights the significant role of monetary policy shocks in output variability (Barakchian and Crowe, 2013). This methodological advancement is crucial for accurately isolating the effects of information shocks from traditional policy actions.

Impact of Monetary Policy on Consumer Behavior

Monetary policy influences consumer behavior through various channels. Gertler and Karadi (2015) discuss how traditional monetary policy actions affect credit conditions, influencing consumer spending and investment. They note that policy announcements can lead to significant adjustments in consumer expectations and spending, even before any actual changes in monetary conditions take place (Gertler and Karadi, 2015).

Nakamura and Steinsson (2018) explore the concept of the information effect of monetary policy. They demonstrate that not just the actions of the central bank, but also the informational content of central bank announcements can profoundly affect the expectations and behaviors of consumers and businesses. This information effect can alter spending and saving decisions across different segments of the population, potentially exacerbating or mitigating income inequality (Nakamura and Steinsson, 2018).

Consumer Response Across Income Strata

Consumer responses to monetary policy and economic shocks vary significantly across different income groups. Coibion, Gorodnichenko, and Weber (2017) find that lower-income households are generally less informed about monetary policy and economic developments, affecting their reaction to policy changes. This disparity in information assimilation can lead to divergent spending behaviors, impacting economic inequality (Coibion, Gorodnichenko, and Weber, 2017).

Lucca and Moench (2015) investigate the anticipatory effects on stock prices ahead of Federal Open Market Committee announcements. They suggest that anticipatory behaviors could extend to other economic activities, including consumer spending. Such anticipatory effects are likely unevenly distributed across income groups, potentially leading to variations in how different strata of society respond to monetary policy shocks (Lucca and Moench, 2015).

Consumption Inequality and Policy Implications

Consumption inequality is a crucial measure of economic well-being and reflects disparities in living standards across different income groups. The Atkinson index is a widely used measure of inequality that can be applied to consumption data to understand these disparities (Atkinson, 1970). By analyzing consumption inequality through the Atkinson index, researchers can gain insights into how monetary policy and information shocks affect different segments of the population.

Existing literature has highlighted the role of monetary policy in shaping consumption patterns. For instance, Hubmer, Krusell, and Smith (2021) explore the dynamics of wealth inequality in the United States, showing significant concentration of wealth among the top income strata over recent decades (Hubmer, Krusell, and Smith, 2021). However, there is a need to focus on consumption expenditure inequality, particularly in the context of information shocks.

Synthesis and Research Gap

While existing research has laid a strong foundation for understanding the macro- and microeconomic effects of monetary policy, significant gaps remain in our understanding of how information shocks specifically affect consumer spending and consumption inequality across different income groups. Most studies have focused either on the aggregate impact of policy changes or on specific financial sectors such as stock markets. There is a need for more focused research on how information conveyed in monetary policy announcements influences consumer behavior at different income levels, particularly given the potential for such information to impact economic inequality.

This proposal seeks to address these gaps by explicitly focusing on the microeconomic impacts of information shocks from monetary policy announcements on consumer spending behavior and consumption inequality across income strata, using a Structural Vector Autoregression (SVAR)

approach to isolate these effects. By doing so, it aims to contribute to a more nuanced understanding of the intersection between monetary policy, consumer behavior, and economic inequality.

Theoretical Framework

Theories of Monetary Policy Transmission

The transmission mechanisms of monetary policy are traditionally explained through the interest rate channel, the credit channel, and the expectations or information channel. Each of these channels describes how monetary policy decisions influence the real economy.

Interest Rate Channel: The basic mechanism where changes in the central bank's policy rate influence other interest rates throughout the economy, affecting consumer spending and investment decisions. Lower interest rates reduce the cost of borrowing, increase asset prices, and generally stimulate spending on consumption and investment.

Credit Channel: This extends the interest rate channel by considering the impact of policy on the supply of credit. According to Bernanke and Gertler (1995), monetary policy affects the balance sheets of banks and borrowers, influencing the amount of credit available in the economy. For consumers, especially those in lower income brackets, credit availability can significantly impact their capacity to make purchases, thereby affecting their spending behavior.

Expectations/Information Channel: This channel, which is central to the proposed study, involves the impact of policy on economic expectations through the information revealed by central banks. Woodford (2003) emphasizes that monetary policy can affect the economy even in the absence of any changes in the short-term nominal interest rate, through its influence on the private sector's expectations about the future path of economic policy and conditions. Information

shocks, therefore, play a critical role in shaping consumer expectations and, consequently, their spending decisions.

Behavioral Economics and Information Processing

Behavioral economics provides insights into how different income groups might process information differently. Simon's (1955) theory of bounded rationality suggests that individuals are not always rational actors with access to complete information but are instead limited by their cognitive resources and the information available to them. Tversky and Kahneman (1974) further explore how heuristics and biases influence decision-making, which can be particularly relevant in understanding how consumers respond to economic information.

Differences in financial literacy across income groups can lead to varying responses to the same information. For instance, higher-income individuals might have better access to financial advisory services or more financial education, enabling them to interpret and act on policy announcements more effectively than lower-income individuals.

Heterogeneous Agent Models in Macroeconomics

Heterogeneous agent models in macroeconomics, which consider variations in agents' responses based on their economic environment, are particularly pertinent. These models, as discussed by Kaplan and Violante (2014), account for differences in marginal propensities to consume, which can vary significantly across different income groups and influence the overall effectiveness of monetary policy.

Synthesis of Theoretical Framework

This research integrates the above theories to examine how information shocks from monetary policy announcements influence consumer spending across income strata. By employing a structural vector autoregression (SVAR) model, this study aims to quantify the distinct impacts of these shocks, separating them from traditional policy actions. The SVAR model will include variables that represent different income groups' spending, which will help in understanding the heterogeneous effects of information shocks.

This theoretical framework supports the hypothesis that information shocks have a differential impact across income groups, affecting their consumption patterns in distinct ways. The expected findings will contribute to a deeper understanding of monetary policy's microeconomic effects, providing valuable insights for policymakers on how to tailor communications to mitigate adverse impacts on inequality.

Table 1, Key papers that discussed in the literature review.

Citation	Model/Method	Data/Context	Substantive Results
Jarociński and Karadi (2020)	Identification of information shocks	High-frequency data on monetary policy surprises	Information shocks can have stronger effects than traditional policy instruments like interest rate changes
Barakchian and Crowe (2013)	Identification scheme using Fed Funds futures	Factors extracted from Fed Funds futures	Highlights the significant role of monetary policy shocks in output variability
Gertler and Karadi (2015)	Analysis of credit conditions	Monetary policy announcements	Policy announcements can lead to significant adjustments in consumer expectations and spending
Nakamura and Steinsson (2018)	Information effect of monetary policy	Central bank announcements	Informational content of central bank announcements can alter spending and saving decisions
Coibion, Gorodnichenko, and Weber (2017)	Analysis of household information	Household surveys	Lower-income households are less informed about monetary policy, affecting their reaction to policy changes
Lucca and Moench (2015)	Anticipatory effects on stock prices	Stock prices before FOMC announcements	Anticipatory behaviors could extend to consumer spending, unevenly distributed across income groups
Hubmer, Krusell, and Smith (2021)	Quantitative analysis of wealth inequality	US wealth data	Significant concentration of wealth among top income strata, driven by policy changes

While the existing literature has established the significance of information shocks in influencing market behaviors and broad economic indicators, there is a notable gap in understanding the specific effects of these shocks on consumption expenditure across different income groups. Most studies focus on aggregate impacts or specific financial sectors, with limited exploration of how these information shocks translate into changes in consumer spending patterns and consumption inequality.

Research Question and Hypothesis

The proposed study seeks to investigate the impacts of information shocks from monetary policy announcements on consumer behavior, particularly focusing on how these effects vary across different income strata. The following research questions and hypotheses are formulated to guide the empirical investigation, with an emphasis on using the Atkinson index to measure consumption

expenditure inequality and utilizing 30-day Fed Fund futures contracts to calculate monetary policy shocks.

Research Question

1. How do information shocks from monetary policy announcements affect consumer spending across different income groups?

    - This question explores the differential impact of information conveyed during monetary policy announcements on the spending behaviors of low, middle, and high-income consumers, focusing on consumption expenditure inequality measured by the Atkinson index.

Hypotheses

Based on the theoretical framework and existing literature, the following hypotheses will be tested:

(H1): Information shocks from monetary policy announcements have a more pronounced impact on consumer spending in high-income groups compared to low-income groups.

- High-income consumers are hypothesized to respond more significantly to information shocks due to better access to resources, higher financial literacy, and greater sensitivity to financial market changes, affecting consumption expenditure inequality as measured by the Atkinson index (Jarociński and Karadi, 2020; Nakamura and Steinsson, 2018; Coibion, Gorodnichenko, and Weber, 2017).

Testing the Hypotheses

These hypotheses will be tested using a Structural Vector Autoregression (SVAR) model, which will incorporate high-frequency data from monetary policy announcements, consumer spending across income groups, and the Atkinson index to measure consumption expenditure inequality.

Impulse response functions will be analyzed to observe the dynamic effects of information shocks over time.

This approach not only addresses the proposed research questions but also provides a robust framework for testing the stated hypotheses, allowing for a comprehensive analysis of the impacts of monetary policy information shocks on diverse consumer groups and their consumption expenditure inequality.

Using a Structural Vector Auto Regression (SVAR) model instead of a regular VAR is essential in this project because SVAR allows for the identification of structural shocks and their causal effects on the economy, which a regular VAR cannot do. In a regular VAR, the shocks are reduced-form residuals, which are mixtures of structural shocks and do not provide clear causal interpretations. SVAR, on the other hand, incorporates theoretical restrictions—such as sign, zero, or long-run restrictions—based on economic theory or empirical evidence to disentangle these shocks. This identification process is crucial for accurately understanding how specific types of shocks, like monetary policy or information shocks, affect economic variables. By using SVAR, we can make meaningful causal statements about the impact of these shocks on variables like consumer spending and inequality, thereby providing more robust and interpretable results that are directly tied to economic theory.

Methodology

This research employs a methodology inspired by Jarociński and Karadi (2020) to disentangle the effects of monetary policy shocks and central bank information shocks on consumer spending across different income strata.

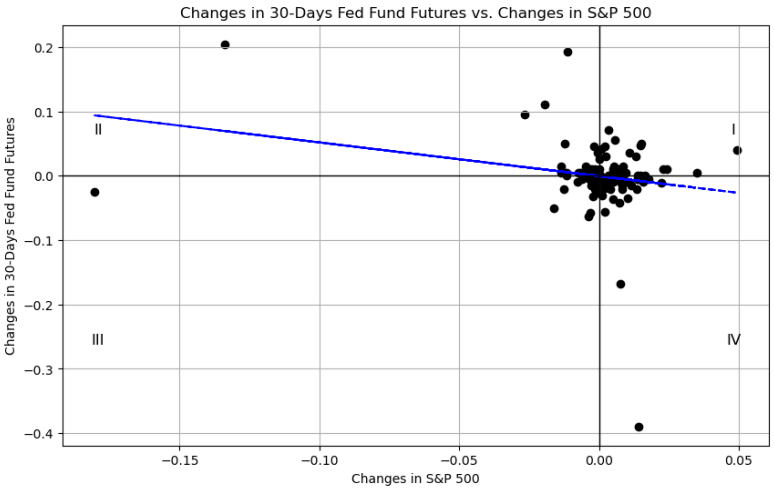
Dataset

The data for this study comes from various sources, including high-frequency financial market data and detailed consumer spending records. Specifically, the high-frequency data around Federal Open Market Committee (FOMC) announcements is collected to focus on the co-movement of interest rates and stock prices (Lucca and Moench, 2015). The 30-Days Federal Funds futures are used to capture the changes in expectations about short-term interest rates, while the S&P 500 index measures changes in stock valuation within a day of FOMC announcements (Jarociński and Karadi, 2020).

The 30-Days Federal Funds futures data is crucial for calculating monetary policy shocks, while detailed consumer expenditure data from the Consumer Expenditure Survey (CE) is utilized to measure consumption inequality using the Atkinson index. This combination allows for a nuanced analysis of how different income groups respond to monetary policy information shocks.

This approach assumes that within a day, only two structural shocks—monetary policy shock and central bank information shock—influence financial market surprises (Barakchian and Crowe, 2013). Based on economic expectations, there should be a negative relation between changes in interest rates and market prices. In Figure 1, we show that this overall relation exists; however, about 33 percent of the points during announcements exhibit a positive relation, which is significant and contrary to economic theories.

Figure 1, Scatterplot of Interest Rate and Stock Price Surprises



Notes: Change in the 30-Days fed funds futures and the S&P 500 index

Consumer spending data, segmented by income levels, is sourced from detailed consumer expenditure surveys such as the Consumer Expenditure Survey (CEX) conducted by the Bureau of Labor Statistics (BLS) (Gertler and Karadi, 2015). This dataset provides comprehensive information on household expenditures, income, and demographic characteristics, allowing for a detailed analysis of spending patterns across different income strata (Coibion, Gorodnichenko, and Weber, 2017).

The Economic Approach

Following the methodology of Jarociński and Karadi (2020), the identification of monetary policy and central bank information shocks is based on the high-frequency co-movement of interest rates and stock prices around FOMC announcements.

The shocks are identified using the following structural equation system:

$$\begin{bmatrix} \Delta y_t \\ \Delta p_t \end{bmatrix} = \begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix} \begin{bmatrix} \epsilon_t^{Mon} \\ \epsilon_t^{Info} \end{bmatrix}$$

where Δy_t and Δp_t represent changes in the log-levels of the stock market index and the interest rate, respectively, and ϵ_t^{Mon} and ϵ_t^{Info} are the monetary policy and information shocks.

This model is using the sign restriction to distinguish Monetary policy shock from Information shock for solving the identification problem.

The identification problem arises because the observed data can be attributed to various underlying shocks, making it challenging to distinguish the specific effects of each shock. Sign restrictions provide a solution by leveraging theoretical and empirical knowledge to specify the expected direction (sign) of responses to particular shocks. This method allows for a more flexible and plausible identification of shocks compared to traditional approaches like zero or long-run restrictions, which often impose more rigid assumptions. By assuming, for example, that an information shock increases both the stock market index and interest rates, sign restrictions enable a clearer distinction between the effects of different shocks. This approach ensures that the SVAR model accurately captures the dynamics underlying the observed economic variables, leading to more credible and interpretable findings, particularly concerning the impact of information shocks on consumption inequality.

In this study we want to distinguish monetary policy shocks from information shocks for solving the identification problem (Nakamura and Steinsson, 2018). Here the sign restrictions are based on the identified patterns of co-movement: monetary policy shocks are characterized by a negative co-movement of interest rates and stock prices, while central bank information shocks show a positive co-movement (Woodford, 2003).

Table 1 summarizes the identification restrictions. The restrictions partition each month's announcement surprise into a monetary policy shock component and a central bank information shock component.

Table 2_ Identifying Restriction in the VAR Model

	Shock		
Variable	Monetary Policy (Negative Co-movement)	CB information (Positive Co-Movement)	Other
p_t high frequency			0
Intrest rate	+	+	
Stock index	_	+	0
y_t Low frequency…	.	.	.

Notes: Restriction on the contemporaneous responses of variables to shocks. +,-,0 and . denote the respective sign restrictions, Zero restrictions, and unrestricted responses.

Sign restrictions assumed in this method imply that a negative co-movement shock is associated with an interest rate increase and a drop in stock prices. A positive co-movement shock is the complementary shock, i.e., the orthogonal shock that is associated with an increase in both interest rates and stock prices (Jarociński and Karadi, 2020).

Empirical Results

This section presents the empirical results obtained from estimating a Structural Vector Autoregression (SVAR) model to analyze the impact of information shocks on key economic variables. Specifically, we focus on the response of the Atkinson Index—a measure of consumption inequality—to various economic shocks.

We use a dataset consisting of 103 observations of the following variables: Stock market index, 30-Days future fed fund rate, Atkinson Index (calculated for consumption), and Inflation. The data was differenced to achieve stationarity, and we checked for multicollinearity and stationarity

before proceeding with the analysis. The optimal lag order for the VAR model was determined to be 1.

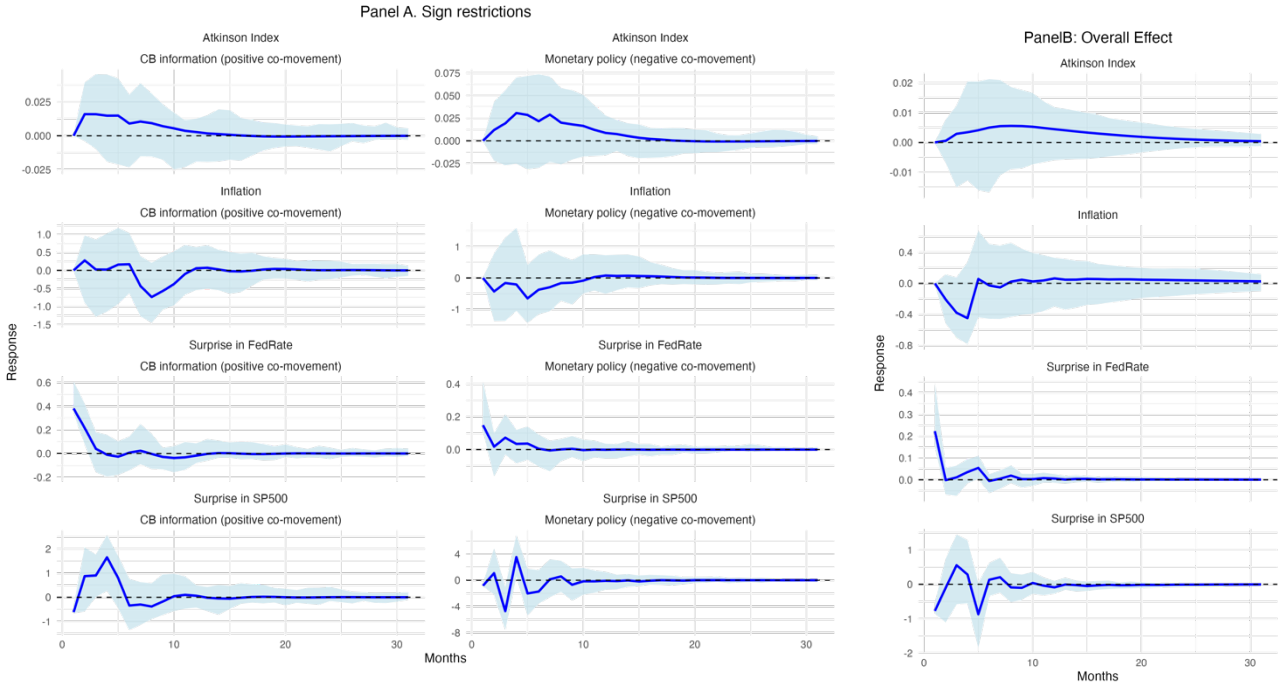
The SVAR model was identified using a set of sign restrictions. We assumed that a monetary policy shock would increase the fed fund rate and decrease stock market index, while an information shock would increase both fed fund rate and stock market index. The A matrix used for identification was specified as follows:

$$A = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 \\ 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

Impulse response Function

The impulse response functions (IRFs) illustrate the reaction of the Atkinson Index, a measure of consumption inequality, to shocks in various economic variables, including the S&P 500 (stock market index), the Federal Funds Rate (interest rate), the Atkinson Index itself, and inflation over a 30-period horizon.

Figure 2, The impulse response functions (IRFs) illustrate the reaction of the Atkinson Index to shocks in Delta_SP500, Delta_FedRate, AtkinsonIndex, and Inflation over a 10-period horizon.



When there is an increase in the interest rate, two main effects occur. First, decrease in Inflation. Higher interest rates typically lead to a reduction in inflation. Lower inflation helps preserve the purchasing power of income, especially for lower-income households, which could reduce inequality. This effect aligns with findings from Nakamura and Steinsson (2018), where tighter monetary policy was associated with reduced inflation pressures.

Second, increase in Asset Depreciation. Conversely, higher interest rates can lead to the depreciation of assets, particularly those held predominantly by higher-income households. While this may initially reduce wealth inequality, it can also increase borrowing costs and decrease consumption for lower-income households, ultimately increasing consumption inequality. This increase in inequality is driven by the greater sensitivity of lower-income households to borrowing costs, as noted by Coibion, Gorodnichenko, and Weber (2017).

In sum, although the reduction in inflation might lower inequality, the overall effect of a rise in interest rates is an increase in inequality due to the dominant effect of higher borrowing costs on lower-income households.

In addition to the effects on inequality, the IRFs also reveal the broader economic impacts of shocks on other variables. For instance, a positive shock to the S&P 500, representing a rise in stock prices, generally leads to an increase in consumption expenditure, particularly among higher-income households, thereby slightly increasing inequality. Conversely, shocks to inflation, while leading to modest reductions in overall consumption inequality due to the erosion of real debt burdens, show varied impacts across different income strata. These dynamics underscore the complex interplay between monetary policy, asset prices, and inflation in shaping economic outcomes, with the IRFs highlighting the nuanced and time-varying effects that these shocks have on the broader economy.

Table 3 summarizes the impact responses of announcement surprises to various shocks, measured in basis points. Specifically:

Monetary Policy Shock: A positive shock in monetary policy (e.g., an increase in the Federal Funds Rate) leads to a 77 basis point increase in the Atkinson Index. This indicates that a positive shock in monetary policy results in a significant increase in consumption inequality. The underlying mechanism is that higher interest rates disproportionately affect lower-income households by increasing their borrowing costs and reducing disposable income.

Information Shock: Information shocks, characterized by the co-movement of interest rates and stock prices, result in a 74 basis point increase in the Atkinson Index. This suggests that when both interest rates and stock prices rise together, the inequality effect is slightly less pronounced than in pure monetary policy shocks but remains significant.

Overall Effect: The Atkinson Index increases by 90 basis points when considering the overall effect of monetary policy without decomposing it into information and policy shocks. This reinforces the idea that both direct policy actions and the information conveyed by central bank announcements exacerbate inequality. These results are consistent with the findings of Jarociński and Karadi (2020) and Coibion, Gorodnichenko, and Weber (2017).

Table 3, Mean and standard deviation of the responses over the 10-period horizon

	Panel A. Sign restrictions				Panel B. Overall effect	
	Monetary Policy		CB Information		Monetary Policy	
	Mean	(5pct, 95pct)	Mean	(5pct, 95pct)	Mean	(5pct, 95pct)
Fed funds futures	25	(-35,78)	20	(-26, 63)	19	(-21, 71)
S&P 500	-60	(-686,213)	72	(-67,-38)	-18	(-181,77)
Atkinson Index	77	(1, 107)	74	(-2, 109)	90	(-28, 119)

These findings suggest that monetary policy and information shocks play crucial roles in shaping consumption inequality. Policymakers should consider these dynamics when designing policies aimed at stabilizing the economy and addressing inequality.

Conclusion

This study provides a comprehensive analysis of how information shocks, specifically those arising from monetary policy announcements, influence consumption inequality across different income strata. By employing a Structural Vector Autoregression (SVAR) model, the research successfully isolates the effects of information shocks from those of traditional monetary policy actions. The empirical findings suggest that both monetary policy and information shocks significantly impact consumption inequality, with monetary policy shocks leading to a 77 basis point increase and information shocks resulting in a 74 basis point increase in the Atkinson Index.

The finding that information shocks can have a pronounced effect on inequality is consistent with Jarociński and Karadi's work, which highlighted the significant impact of information shocks on financial markets. This study confirms that these shocks also have substantial implications for consumption inequality.

The study's results support Nakamura and Steinsson's identification of the informational effects of monetary policy. This research builds on their findings by demonstrating how these effects extend to consumption behavior across different income groups, particularly in exacerbating inequality.

The results are also in line with Coibion et al.'s research, which emphasized that lower-income households are less responsive to monetary policy due to lower financial literacy and access to information. The increase in inequality observed in this study can be attributed to the disproportionate impact of monetary policy and information shocks on these vulnerable groups.

Overall, the study's findings confirm the prevailing theories that monetary policy and information shocks have significant and often unequal effects on different income groups, thereby contributing to increased consumption inequality. The alignment with existing literature reinforces the robustness of these findings and highlights the need for policymakers to consider the distributional consequences of their decisions. This research suggests that more tailored communication strategies could help mitigate the unintended adverse effects on inequality, ensuring that monetary policy contributes to more equitable economic outcomes.

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