

The Impact of National Monetary Policy on Stock Price Increases

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Abstract. This paper investigates the impact of national monetary policy on stock price increases. In the current economic environment, monetary policy, as a crucial instrument for national economic regulation, significantly influences stock market trends. By analyzing the relationship between monetary policy and stock price increases and adopting an empirical analysis approach, this study explores China's stock market. Through discussions on the transmission mechanism of national monetary policy's impact on the stock market, empirical analysis, and policy recommendations, this paper aims to provide useful references for investors, policymakers, and market participants. The research finds that national monetary policy significantly influences stock price increases, particularly through monetary supply policies and interest rate policies. In practice, policymakers should comprehensively employ monetary and fiscal policies to achieve stock market stability and economic growth.

Keywords: stock market, interest rates, exchange rates, national monetary policy, multiple linear regression

1. Introduction

With the deepening of global economic integration, national economies have become increasingly interdependent. Monetary policy, as an essential tool for national economic regulation, has a profound impact on both domestic and international financial markets. Particularly in recent years, China's stock market has developed rapidly, expanding in scale and strengthening its ties with the real economy. Against this backdrop, studying the impact of national monetary policy on stock price increases holds significant practical relevance. 1. Theoretical Significance: This research explores the theoretical relationship between monetary policy and the stock market, enriching and refining the theoretical framework in this field. It helps advance research in finance and economics. For instance, Friedman, M. provides an in-depth analysis of the function of monetary policy [4]. This work serves as a theoretical foundation for examining the relationship between monetary policy and the stock market, facilitating a broader and deeper understanding of monetary policy's role in the financial system and its potential pathways of influence on the stock market. 2. Practical Significance: By analyzing the impact of national monetary policy on stock price increases, this study offers valuable references for policymakers, investors, and other market participants. It helps them better understand and anticipate how monetary policy affects the stock market, allowing for the formulation of more scientific and rational investment strategies and policies. 3. Policy Significance: This research analyzes the transmission mechanisms of monetary policy's impact on stock price increases, offering practical policy suggestions for achieving economic growth and stabilizing the stock market. These insights help promote the stability and healthy development of China's financial market.

2. Research Objectives

The aim of this study is to reveal the mechanisms through which national monetary policy influences stock price increases and to provide a theoretical basis for investors, policymakers, and market participants. By thoroughly examining the relationship between national monetary policy and stock price increases, this study seeks to uncover the underlying mechanisms of influence. This enhanced understanding will support market participants in making informed investment decisions and provide policymakers with strong theoretical backing for policy formulation.

This study also analyzes the extent to which different monetary policy tools impact stock price increases, allowing policymakers to fine-tune their monetary policies more precisely. Monetary policy encompasses a variety of tools, such as interest rates, money supply, and open market operations. The influence of these tools on the stock market may differ in degree. By evaluating the impact of various monetary policy tools on stock price increases, this research offers policymakers valuable insights,

enabling them to fine-tune the regulation of monetary supply and better achieve the goals of stable economic growth and financial market stability.

Furthermore, this study aims to provide practical policy recommendations for the stability and healthy development of China's financial markets. Through an in-depth analysis of the relationship between national monetary policy and stock price increases, this research offers policymakers guidance on how to effectively utilize monetary policy tools to maintain financial market stability, thereby promoting the long-term stability and healthy development of China's financial markets.

3. Research Methods

3.1. Literature Review Method

By reviewing relevant literature in the field, this study aims to understand and summarize the impact of national monetary policy on stock price increases and its mechanisms. By synthesizing both domestic and international research, this study will incorporate existing research findings to establish a foundation for subsequent theoretical and empirical analyses. For example, Blanchard, O., & Summers, L. provides a theoretical reference on the relationship between monetary policy and the macroeconomy [1].

3.2. Empirical Analysis Method

This study collects relevant data and employs quantitative methods such as time series analysis and regression analysis to examine the relationship between national monetary policy and stock price increases. Historical data from China's stock market and corresponding monetary policy data will be gathered. Using statistical techniques like time series analysis and regression analysis, this research will empirically test and reveal the quantitative relationship between national monetary policy and stock price increases.

3.3. Policy Recommendation Method

Based on the findings from theoretical and empirical analyses, this study will propose targeted policy recommendations to promote the stability and healthy development of China's financial markets. The research will provide policymakers with suggestions on the effective use of monetary policy tools to maintain financial market stability, thereby supporting the long-term stability and growth of the financial markets in China.

4. Literature Review

Research on the impact of national monetary policy on stock price increases has primarily focused on the following aspects:

4.1. Theoretical Discussion on the Relationship Between Monetary Policy and the Stock Market

Scholars have explored the relationship between monetary policy and the stock market from different perspectives. For example, a positive correlation has been observed between the degree of monetary policy easing and stock market increases, while a negative correlation exists between monetary policy tightening and stock market increases. Additionally, some scholars argue that the transmission mechanism of monetary policy affects the stock market through channels such as interest rates, money supply, and inflation expectations.

4.2. Choice of Monetary Policy Tools

Researchers have examined the varying degrees of impact that different monetary policy tools have on the stock market. For instance, studies have found that interest rate policies and open market operations significantly influence the stock market, while the impact of money supply policies is relatively smaller. Furthermore, scholars have investigated the interaction between monetary policy and other macroeconomic policies, such as fiscal policy and industrial policy, and how these policies collectively influence the stock market. For example, Bernanke, B. S., & Mihov, I. provides valuable insights into the interplay of macroeconomic policies, which can inform this study [2].

4.3. Policy Recommendations

Based on the impact of monetary policy on the stock market, scholars have proposed relevant policy recommendations. Policymakers are advised to consider the stability and development of the stock market when formulating monetary policies, using monetary policy tools judiciously to achieve stable economic growth and maintain financial market stability. Additionally, scholars

emphasize the importance of strengthening financial market supervision and improving financial market infrastructure as measures to ensure stability. Research such as Eichengreen, B. W. offers useful perspectives for policy recommendations [3]. In the context of complex and evolving global economic situations, such as those discussed in Krugman, P, the stabilizing role of monetary policy on the stock market becomes increasingly significant [5]. This highlights the necessity of this study for understanding the relationship between monetary policy and the stock market, providing theoretical and practical guidance for policymakers to manage stock market volatility in challenging economic environments.

5. Theoretical Analysis

The mechanisms through which national monetary policy influences stock price increases primarily include the following aspects:

5.1. Interest Rates

Interest rates are one of the key transmission channels of monetary policy. When the central bank implements an expansionary monetary policy, it typically lowers interest rates, reducing financing costs for businesses and improving their profitability and investment willingness. This stimulates demand in the stock market and drives stock prices up. Conversely, when the central bank enacts a contractionary monetary policy, interest rates rise, increasing financing costs for businesses, reducing their profitability and investment willingness, decreasing stock market demand, and potentially leading to falling stock prices.

5.2. Money Supply

Money supply is another crucial target of central bank regulation. Expansionary monetary policy usually leads to an increase in the money supply, which encourages businesses and individuals to consume and invest more, positively impacting the stock market. In contrast, contractionary monetary policy results in a decreased money supply, lowering the willingness to consume and invest, reducing stock market demand, and potentially causing stock prices to fall.

5.3. Inflation Expectations

Inflation expectations are a significant factor influencing the stock market. Expansionary monetary policy may raise inflation expectations, increasing investors' concerns about future price hikes and reducing confidence in the stock market, which can lead to falling stock prices. Contractionary monetary policy helps control inflation expectations, stabilizing investor outlooks and supporting stock market stability and development.

5.4. Credit Risk

Monetary policy affects credit risk in the real economy by regulating financial institutions' credit issuance. Expansionary monetary policy eases corporate financing difficulties, reducing credit risk and positively impacting the stock market. Conversely, contractionary monetary policy can make corporate financing more difficult, increasing credit risk and negatively affecting the stock market.

5.5. Exchange Rates

Exchange rates serve as an important transmission channel of monetary policy. Expansionary monetary policy may lead to a depreciation of the domestic currency, enhancing the competitiveness of export-oriented businesses and positively impacting the stock market. In contrast, contractionary monetary policy can cause currency appreciation, weakening the competitiveness of export-oriented businesses and negatively impacting the stock market.

In summary, national monetary policy influences the real economy and financial markets through multiple channels, ultimately affecting stock price increases. It is important to note that the effectiveness of monetary policy is influenced by various factors, such as the economic cycle and the international economic environment. Therefore, when analyzing the impact of monetary policy on stock price increases, these factors need to be considered comprehensively.

6. Empirical Analysis

6.1. Data Collection

This study collects data on national monetary policy indicators (interest rates, exchange rates, and money supply) and stock market indices. Specifically, we analyze the annual market capitalization of the Shanghai Stock Exchange and the national money supply from 2008 to 2023.

6.2. Data Processing

The market capitalization data for the Shanghai Stock Exchange is missing for the year 2017.

6.3. Model Construction

A multiple linear regression model is established to analyze the relationship between national monetary policy and the stock market index.

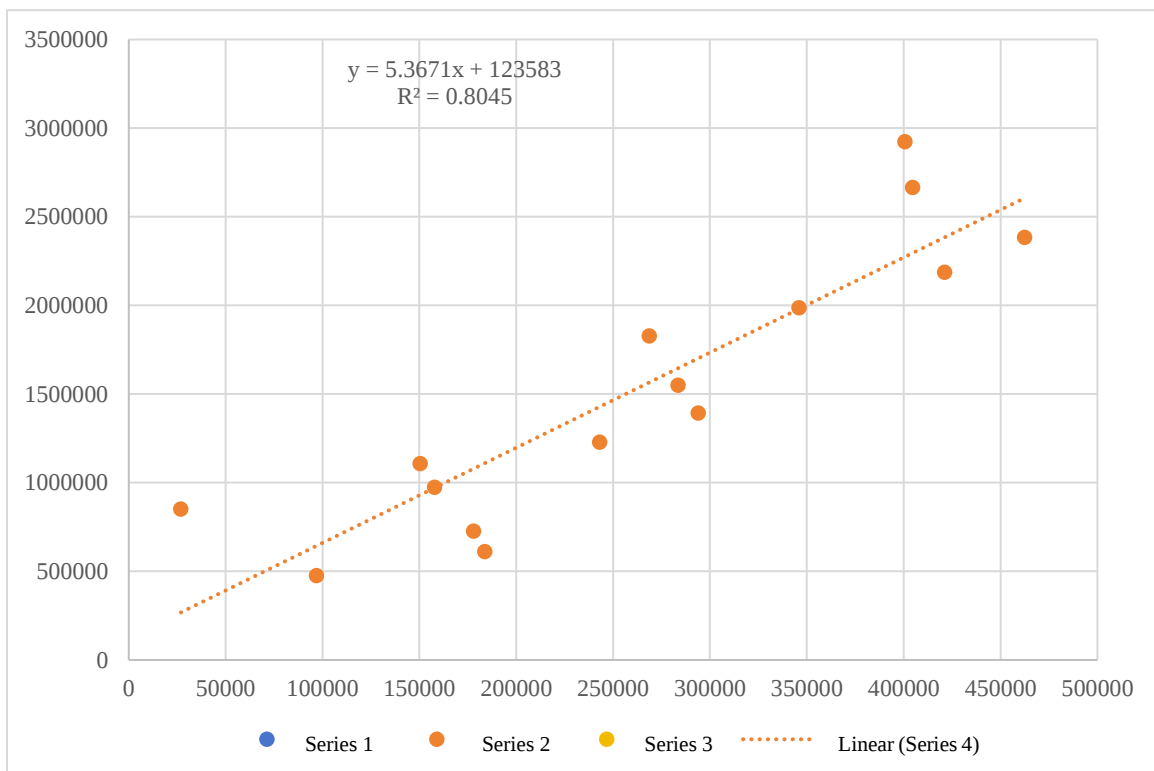


Figure 1. Relationship Between Monetary Policy and Stock Market Index

6.4. Statistical Analysis

The collected data is subjected to statistical analysis, yielding the regression equation: $y = 5.3671x + 123583$ with a correlation coefficient $R^2 = 0.8045$. This indicates a strong relationship between national monetary policy (specifically money supply) and stock trading volume, as illustrated in Figure 1: Relationship Between Monetary Policy and Stock Market Index.

6.5. Result Interpretation

Based on the statistical analysis, the mechanism and extent of national monetary policy's impact on stock price increases are explained. For example, if expansionary monetary policy is positively correlated with stock market increases, policymakers should consider the stability and development of the stock market when formulating monetary policies. This helps achieve stable economic growth and maintain financial market stability.

6.6. Model Testing

The model's validity and robustness are tested by assessing parameter stability, in-sample, and out-of-sample prediction accuracy. This step determines whether national monetary policy causally influences stock price increases.

7. Conclusion and Policy Recommendations

In this paper, we investigated the impact of national monetary policy on stock price increases. By collecting and analyzing a large dataset, we arrived at the following conclusions:

Significant Impact of Monetary Policy on the Stock Market: Monetary policy significantly influences the stock market. Expansionary monetary policy typically leads to an increase in stock prices, while contractionary monetary policy may result in a decline in stock prices.

Transmission Mechanisms of Monetary Policy: The primary transmission mechanisms of monetary policy include interest rates, money supply, and credit policy. Among these, interest rates and money supply are the main factors affecting the stock market, whereas the impact of credit policy is relatively smaller.

Industry-Specific Sensitivity: Different industries respond differently to monetary policy changes. Generally, capital-intensive industries such as finance and real estate are more sensitive to monetary policy, while industries in the real economy, such as manufacturing and consumer goods, exhibit lower sensitivity to monetary policy.

Consideration of Stock Market Reactions in Policy Formulation: Policymakers should carefully consider the stock market's response when formulating monetary policies to avoid excessive shocks to the market. Particularly during economic downturns, appropriately expansionary monetary policy can stimulate the stock market and foster economic growth.

Strengthening Financial Market Regulation: Enhanced regulation of financial markets is essential to mitigate financial risks. Excessive financial liberalization can lead to market bubbles and increased financial instability. Therefore, monetary policymakers should collaborate closely with financial regulatory authorities to maintain market stability.

Differentiated Monetary Policies by Industry: To provide targeted support for the real economy, monetary policies should be tailored to the characteristics of different industries. For instance, for capital-intensive industries, raising interest rates can curb excessive investment; for real economy sectors, maintaining relatively low interest rates can support sustainable growth.

Strengthening International Cooperation: In the context of global economic integration, monetary policies across countries influence each other. Policymakers should enhance international cooperation to jointly address global financial risks.

In conclusion, national monetary policy has a profound impact on stock price increases. Policymakers should fully consider these effects when designing monetary policies to ensure stable economic growth and maintain financial market stability.

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