

Research on the Influence of Monetary Policy on Stock Market Return

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Abstract: These changes in China's stock market are influenced by factors such as the share-trading reform and the international financial crisis. During this period, a series of monetary policies implemented in China also had some profound effects on China's stock market. Capital market has always been the main transmission channel of monetary policy. In recent years, China's interest rate system, share-trading system and other reforms have been gradually implemented, and the reform of interest rate marketization has achieved certain results, but it has also brought more uncertainty to the transmission of stock market and monetary policy. With the continuous expansion of the stock market, it has played an important role in the transmission process of monetary policy. At the same time, monetary policy can affect the price of financial assets, thus changing people's behavioral decisions and achieving monetary policy goals. When the actual monetary policy changes beyond or below expectations, it will cause the change of stock price. The existence of expectation effect makes the relationship between monetary policy and stock price change more complicated: taking loose monetary policy as an example, when the actual degree of easing is greater than investors' expectations, stock prices will be positively stimulated by easing; When the degree of easing is less than investors' expectations, the stock price will turn downward. Therefore, it is worth studying to analyze the influence mechanism among monetary policy, stock market and real economy.

Keywords: Monetary policy, Stock and securities market, Yield impact.

1. Introduction

With the deepening of China's opening-up and domestic reform, China's financial market has become increasingly complex and difficult to control. The instability of the capital economy market affects the development of the stock market. In order to ensure the healthy and stable development of China's capital market, it is very important to formulate practical and feasible policy tools. The changes in China's stock market have been influenced by factors such as the split share reform and the international financial crisis[1]. During this period, a series of monetary policies implemented in China have also had some profound impacts on the stock market. The capital market has always been the main transmission channel for monetary policy. With the continuous expansion of the stock market, it has played an important role in the transmission process of monetary policy. At the same time, monetary policy can change people's behavior and decision-making by influencing financial asset prices to achieve monetary policy goals[2-3]. Therefore, in the process of formulating monetary policy, attention should be paid to the impact on the increasingly expanding stock market. Fluctuations in market interest rates and changes in the Money supply will affect the flow of funds, the financing costs and fundamentals of enterprises, leading to changes in investors' expectations of the market and enterprises, that is, the stock trading price will change accordingly with the change interest rate system and equity split system has gradually been implemented, and the market-oriented reform of interest rates has achieved certain results[4]. After regression according to different monetary policy periods, this paper finds that during the loose monetary policy period, with the increase of market value scale, the excess investment return rate of portfolio decreases, and the market value effect exists significantly, while the book-to-market ratio effect also exists, but its influence is weak. The financial market covers

the basic macro-economic information and can quickly transmit the expected information of the overall economy[5].

2. Influence of Monetary Instrument on Stock Price

2.1. The influence of open market operation on stock price

When the national economy is generally depressed, there will be a decline in stock transactions and the total amount in the financial market. At this time, the central bank will purchase securities within a certain range to increase the amount of money circulating in the market. Everything will have two sides in the implementation period, and in the short term, the central bank's adjustment of interest rates will also have adverse effects [6]. The most obvious one is that the basis for raising interest rates is that the amount of supply and demand in the market is defined by buyers and sellers themselves. The goal of monetary policy determines the direction of monetary policy tools, and the strength of monetary policy tools determines the tightness cycle of monetary policy. Monetary policy can be divided into price-based monetary policy and quantitative monetary policy according to different intermediary indicators. The central bank uses price-based monetary policy to control the market interest rate to affect the credit scale and asset price in the economy. On this basis, the central bank can also increase loans to enterprises, and banks will expand the credit scale [7]. This will inevitably increase the money supply several times, and more money will enter the stock market and buy more stocks, which will lead to a rise in stock prices.

2.2. Adjusting the Impact of Money supply on the Stock Market

Coupled with the impact of currency multipliers, the money supply in the market will significantly decrease, and

the direct impact on the stock market is the decline in stock prices. At present, China's market interest rates are in the process of development, and the reserve requirement ratio is usually set by the central bank, and its adjustments are often exogenous[8]. In addition, the frequency of adjustment of the reserve requirement ratio by the central bank is not high. Once carried out, it often attracts widespread attention from society and has an important impact on enterprise production activities, economic development, and financial markets[9]. The securities are the main body of the open market business, and the central bank is the main body. The specific content is that the central bank further controls the activities of the Money supply flowing into the market by buying and selling a certain amount of securities. Unlike the general purpose of purchasing or selling securities for profit, its main purpose is to transport money to the market through purchasing business and reduce the money supply in the market through selling securities business [10].

2.3. The Influence of Interest Rate on Stock Market

Because China's securities market is based on the stock market, it has gradually developed into a multi-level comprehensive market such as fund market and bond market. In this paper, the fund market index and bond market index are selected. The fund market is limited in market size and relatively closed. In order to obtain better analysis results, the Shanghai Stock Exchange Fund Index and Shenzhen Stock Exchange Fund Market Index are selected respectively [11]. When the economic situation improves and bank interest rates rise, the attractiveness of savings and bonds to funds will be greatly enhanced, and the funds invested in the stock market will be reduced accordingly, which will have an impact on the

stock price decline and cause changes in the stock market. On the other hand, the increase of interest rate is also a big pressure on the borrowing cost of investors, and it is also a constraint on the investment and reproduction of enterprises, which in turn will affect the profits of enterprises and further reduce the company's share price [12]. When the deposit reserve ratio is lowered, it means that the amount of funds paid by commercial banks to the central bank will be less, and the money supply in the market will be more abundant, which will stimulate the development of the weak stock market. Generally speaking, the relationship between the deposit reserve ratio and the stock index shows the opposite trend.

3. Analysis of the Impact of Monetary Policy on Stock and Securities Market Returns

3.1. The Money Supply Mechanism of Monetary Policy's Impact on Stock Returns

Money supply is one of the two most important intermediate index variables of monetary policy, and its change has a great influence on the operation of the stock market. When the inflation rate changes, the assets of different natures in the portfolio held by investors are affected to different degrees, and their prices change to different degrees, which leads to the change of their relative prices, so investors change the holding ratio of their various assets, including stocks, which will lead to changes in has more effective influence on output than monetary channel, so it has become the main transmission channel of China's monetary policy. The transmission path of monetary policy affecting stock price is shown in Figure 1.

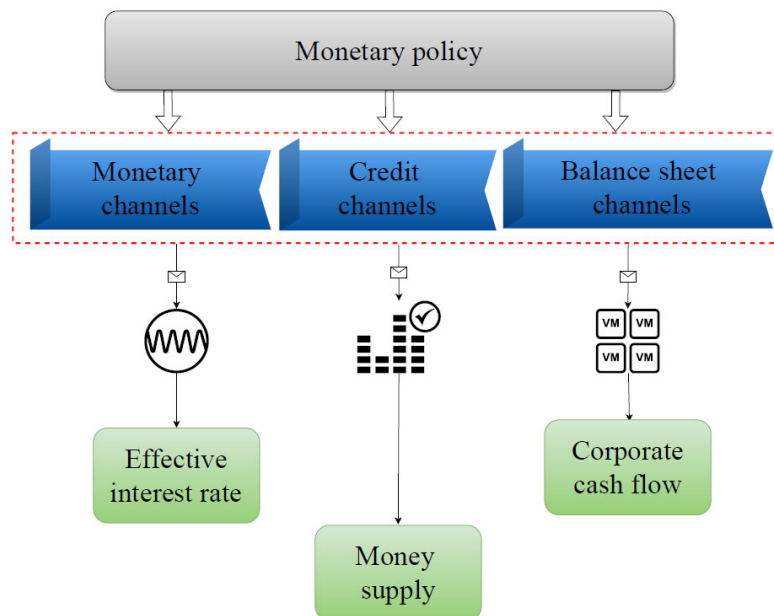


Figure 1. Transmission Paths of Monetary Policy Affecting Stock Price

The lower real interest rate increases the asset price and reduces the Adverse selection and Moral hazard problems caused by the asymmetric information of borrowers. Enterprises with better balance sheets are more likely to obtain external financing funds, thus stimulating the production and investment behavior of enterprises. In the

actual investment process, market participants, including value investors and speculators, will make predictions about the future monetary environment based on existing information, and will not adjust their asset portfolios until the actual changes in monetary policy occur. That is to say, the reconfiguration of asset portfolios was completed before the

release of monetary policy. In an efficient market, expected monetary policy will not have a significant impact on stock prices. The combination effect of monetary assets generated by changes in the money supply causes changes in stock returns, and in this process, changes in inflation play an important role as a bridge connecting the relationship between money supply and asset portfolios.

3.2. The Interest Rate Mechanism of Monetary Policy on Stock Returns

Interest rate is another very important intermediate index variable of monetary policy besides money supply, and its change also has a great influence on the operation of stock market. The marginal efficiency of capital depends on the income of capital assets in the future and its replacement price in the current period. The higher the return of capital assets in the future. When the actual monetary policy changes beyond

or below expectations, it will cause the change of stock price. The existence of expectation effect makes the relationship between monetary policy and stock price change more complicated: taking loose monetary policy as an example, when the actual degree of easing is greater than investors' expectations, stock prices will be positively stimulated by easing; When the degree of easing is less than investors' expectations, the stock price will turn downward. As shown in Figure 2, in 2017, China's fiscal revenue was subject to the decline in exports, shrinking demand, insufficient investment and other reasons, and the decline in fiscal revenue deepened. Since 2017, the degree of decline has gradually weakened, and then it has continued to maintain rapid growth. The country has realized a total fiscal revenue of 9,728.749 billion yuan, with an average monthly growth rate of 17.5%. Since 2020, the national tax revenue has steadily increased, with an average monthly increase of 5.46%, reaching 44,131.219 billion yuan.

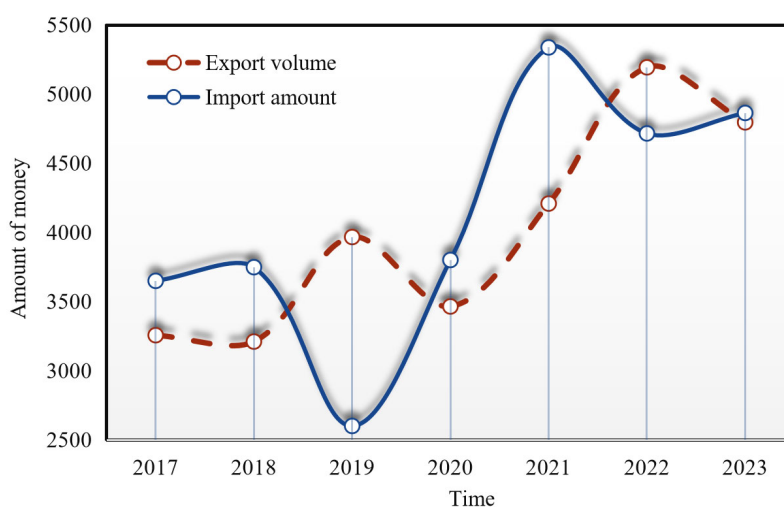


Figure 2. Sequence of China's import and export volume

The balance sheet channel of monetary policy believes that the tight monetary policy will raise the market interest rate, and then increase the interest expenses and other costs of the enterprise, which will worsen the balance sheet of the company, make the borrower's cash flow situation more severe, worsen the borrower's financial situation, and raise the Risk premium of the enterprise's stock. When the interest rate rises, the relative rate of return of Savings account on stock investment increases, and people may be more willing to deposit their money in the bank to obtain risk-free interest income, rather than investing in stocks, to face greater investment risks. As a result, investors' demand for stocks weakens, leading to a decrease in stock prices and a decrease in their returns.

4. Conclusions

Monetary policy affects the real economy and financial market through various channel mechanisms, mainly including monetary channels and credit channels. It is generally believed that monetary policy is contrary to asset prices, that is, tight monetary policy will cause asset prices to fall, while loose monetary policy will cause asset prices to rise. After regression according to different monetary policy periods, this paper finds that during the loose monetary policy period, with the increase of market value scale, the excess

investment return rate of portfolio decreases, and the market value effect exists significantly, while the book-to-market ratio effect also exists, but its influence is weak. The financial market covers the basic macro-economic information and can quickly transmit the expected information of the overall economy. Enterprises with better balance sheets are more likely to obtain external financing funds, thus stimulating the production and investment behavior of enterprises. In the actual investment process, market participants, including value investors and speculators, will make predictions about the future monetary environment based on existing information, and will not adjust their asset portfolios until the actual changes in monetary policy occur. That is to say, the reconfiguration of asset portfolios was completed before the release of monetary policy. The change of financial asset price can measure the overall volatility of financial market and judge the expected uncertainty. The central bank can find out in time whether the rise in asset prices is supported by fundamentals or inflated by bubbles, and take decisive monetary policy to contain the crisis. Which implies that the expected guidance of China's monetary policy still needs to make more efforts in the information transmission of the total money supply. Further strengthen information disclosure, improve the transparency of monetary policy, and carry out multi-channel communication to guide market expectations reasonably.

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