

Research on the Impact of Margin Financing and Margin Trading on the Stock Price Fluctuation of Listed Companies

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Abstract: Margin financing and securities lending are a kind of leveraged trading, which has great trading risks. The representative stocks in the financial industry of China's stock exchange market are selected for research, and the effect of margin financing and stock lending on the volatility of the stock price of the selected stocks is analyzed, and an in-depth analysis is performed. Use the GARCH model to measure the volatility of selected stocks in the financial industry to form individual stock volatility variables, and then use the formed individual stock volatility variables and the two stock financing balance and margin lending balance variables to establish a VAR model and perform Granger causality analysis, impulse response analysis, and variance decomposition analysis have found that financing balances and margin balances can all increase the volatility of stock prices.

1. Introduction

Margin financing and securities lending business play an important role in expanding market transaction scale, transmitting stock price signals, and strengthening market supervision. In the initial stage of the margin financing and securities lending business, there were many sharp fluctuations in the market and individual stocks. Many high-valued and low-growth stocks in the Liangrong market continue to have high balances and abnormal stock price fluctuations, indicating that margin trading and margin trading have a sharp impact on stock price fluctuation. At present, there is no conclusive conclusion about the impact of Liangrong business on the volatility of individual stocks. Most scholars are limited to the research on the impact of stock market volatility, but less on the volatility of stock prices [1].

2. Theoretical Analysis

2.1. The Impact Mechanism of Financing Transaction on Stock Price Volatility

The effect of financing transactions on the volatility of individual stock prices can be studied from the perspective of demand and supply of the underlying stock [2].

When some underlying stocks were sold in the market for some reason, the stock price fell sharply in a short period of time, until the stock price fell far below its intrinsic value. Some savvy

investors expect future stock prices will return, will use their own funds or financing to purchase these stocks in large quantities, resulting in a large demand for the target. At this time, the investor's financing information sent a signal to the market that the stock was undervalued. In this case, other investors are affected by the herd effect, and market investors follow suit to use their own funds or financing to purchase a large number of underlying stocks. As a result, there is a large demand for the underlying stock. According to the theory of supply and demand, the expansion of demand and the neutralization of a large amount of supply before the stock price continued to decline. The financing behavior sends investors a signal that the stock price is undervalued, which can prompt the stock price to return to its intrinsic value more quickly [3].

When the stock price rises to a certain level, investors who have previously entered the market will sell the underlying stocks to obtain returns and increase the supply of the underlying stocks. This selling behavior leads some investors to follow suit. This herd effect will cause a large increase in the supply of the underlying stock. When the supply increases more than the demand, the stock price returns. At this time, the stock price is undervalued and oversupply. This cycle of buying and selling is reciprocated in this way, and the stock price will float around its intrinsic value.

2.2. The Effect Mechanism of Securities Margin Trading on Stock Price Volatility

When the price of certain underlying securities is increased due to a large number of purchases in the market for some reason, some investors perceive that the stock price has excessively deviated from its intrinsic value. It is expected that the stock price will fall in the future and will pass the market through financing. The bond sells the underlying stock, forming a large supply of the underlying stock. Investors' information on the securities lending signal to the market that the stock is overvalued. Influencing the investment behavior of other investors has a herd effect. The market follows suit and sells its own stocks or conducts short selling through margin trading. The supply of the underlying stock is therefore increased. According to the theory of supply and demand, the expansion of supply has neutralized a large amount of demand before, which has restrained the increase in stock prices. Margin trading signals to investors that the stock price is overvalued, which can prompt the stock price to return to its intrinsic value more quickly [4].

When the stock price drops to a certain level, the investor who first made the investment will repurchase the underlying stock to obtain a return. This selling behavior leads some investors to follow suit. This herd effect will cause a large increase in the demand for the underlying stock. When the demand increases to more than the supply, the stock price returns and the demand exceeds supply. Such a reciprocating cycle, the stock price will fluctuate around its intrinsic value.

2.3. Enhance Social Capital Investment Confidence

In the process of PPP project cooperation, although the social capital side cannot avoid the occurrence of political risks, the voluntary withdrawal of social capital has made social capital a retreat. As long as the social capital party can meet the conditions for exiting the PPP project, the social capital party can actively withdraw from the PPP project. The existence of a voluntary exit method of social capital makes the government subject to certain constraints in the PPP project, which not only increases the fairness of cooperation between the two parties, but also allows the two parties to make the cooperation relationship more harmonious.

3. Empirical Results and Analysis

After passing the above empirical research, we find that the balance of the two financial services has a great impact on the stock price of individual stocks. We establish a VAR model for financing

transactions and stock price fluctuations. Based on the VAR, we perform a Granger causality test on two variables. The test results show that the logarithmic financing balance is the Granger cause of stock price fluctuations. The impulse response test is performed on the variables. The impulse response image shows that a shock is applied to the logarithm of the financing balance, and the stock price fluctuation will cause a positive change accordingly, and the impact will be greater. But this response is not immediate, but lagging. The variance decomposition of stock price fluctuations shows that the contribution rate of the stock price fluctuation variance is mainly provided by itself, and the contribution rate of financing transactions accounts for only a small number, but with the increase of lag time, financing transactions will aggravate the fluctuation of stock prices. Unlike financing transactions, margin trading has a much smaller impact on stock price fluctuations. We establish a VAR model for stock trading and stock price fluctuations. On the basis of VAR, Granger causality test was performed on two variables. The test result showed that the logarithm of the margin balance was the Granger cause of stock price fluctuation. The impulse response test is performed on the variables. The impulse response image shows that an impact is applied to the logarithm of the margin balance. The stock price fluctuation does not immediately respond to the change in the logarithm of the financing balance, but after a period of time lag, a sharp positive Response, the response peaked in the second period, and then began to fall back. The variance decomposition of stock price fluctuations shows that the contribution rate of the stock price fluctuation variance is mainly provided by itself, and the contribution rate of margin trading is only a small part, but with the increase of the lag period, the contribution also gradually increases. Reached 0.08%. Relative to financing, this value is much smaller. The empirical result of the study is that the balance of stock trading has a positive effect on the stock price of individual stocks.

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