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Asymmetric Impact of Macroeconomic Shock on Stock Market based on New Economic Situation

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Abstract

With the development of economy and society, the influence of financial system on economy is increasingly prominent. However, there are some factors that lead to instability in the financial system. The impact of this instability on macro-economy shows an asymmetry. The impact effect of macroeconomic policies has been widely concerned by researchers. At the same time of economic growth, the capital market has gradually formed a complete financial framework, and various financial products have become increasingly perfect. Although the uncertain effect of policy can really affect the asymmetric intensity of the dynamic correlation between stock market and macro-economy, the overall economic situation change has a greater impact on the asymmetric intensity of the dynamic correlation between stock market and macro-economy. This paper studies and analyzes the impact of macroeconomic shocks on the stock market under the new economic situation in China, and then puts forward corresponding solutions.

Keywords

Financial system; Macroeconomics; Stock market.

1. Introduction

Since the reform and opening up, China's economy has developed rapidly. At the same time of economic growth, the capital market has gradually formed a complete financial framework, and various financial products have become increasingly perfect. In the capital market system is not perfect, supervision is not strict, speculation is more serious, the development of the capital market to a large extent depends on China's macroeconomic policy intervention [1]. With the development of the global financial market, it also plays an increasingly important role in the development of the whole economy. Among them, the financial market situation affects not only the output and price level, but also the transmission path of monetary policy. As a financial transaction department with convenient information acquisition and sufficient information disclosure, the stock market can timely reflect the macroeconomic operation situation of a country or region [2]. Financial market conditions affect not only the output and price level, but also the transmission path of monetary policy. As an important part of China's capital market, the stock market has developed rapidly in recent years and has become increasingly prominent in the national economy [3]. It can be said that the instability of the financial system is the direct cause of the outbreak of the modern economic crisis, whether worldwide or local economic turmoil starts from the financial sector [4]. With the acceleration of China's marketization process and the development and improvement of the financial system, it can be said that finance has become the protagonist of the economy and society.

Financial markets are not only ahead of changes in macroeconomic variables, but they also have a predictive effect on output. Government authorities need to pay attention to changes in financial market conditions and measure the degree of impact of financial markets on

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macroeconomics [5]. The impact of macroeconomic policies on the capital market is greater than the impact of corporate or market intrinsic factors. Changes and adjustments in macroeconomic policies have become important information for investors. A large amount of capital has continuously flowed into capital markets such as stocks, bonds, funds, real estate, foreign exchange and gold, which has promoted the rapid development of China's capital market [6]. According to the fact that stocks of different actual controllers have asymmetrical responses to macro shocks, investors can perform corresponding operations according to expectations to achieve arbitrage or risk control in order to effectively respond to the powerful shock caused by the sudden international economic crisis. At the same time, taking into account other targets in the process of economic development and new problems that have been exposed in the crisis, various countries and economies have adopted macro-control measures of varying strengths [7]. Although the uncertainty effect of policies can indeed affect the asymmetric strength of the dynamic correlation between the stock market and macroeconomics, changes in the overall economic situation have a greater impact on the asymmetry strength of the dynamic correlation between the stock market and macroeconomics.

2. Theoretical Analysis of Asymmetric Impact of China's Financial Market on Macroeconomics

2.1. Analysis of the Impact of Financial Market on Macroeconomics

In general, an idealized market is one whose price provides an accurate signal of resource allocation. Securities prices can fully reflect all public information related to the asset. As a branch of economic market, financial market also has the general characteristics of market [8]. Under the influence of supply and demand, stock market value and interest rate are all in a state of fluctuation. This change in financial market is also an important reason for financial instability. If investors respond promptly and adequately, the market will be in a state of zero profit. If based on the whole society, the behavior in line with the principle of personal cost-benefit is not necessarily a reasonable choice. In essence, the efficient market hypothesis is a dynamic price behavior in competition, which is extended from the zero profit state under the traditional certainty model to the uncertainty situation. In the stock market, how to make the stock market more reasonable and effective has been a problem that people actively explore. Resources form a positioning barrier for enterprises, that is, the resource status of enterprises determines the type and market position of enterprises. In a considerable part of empirical research, market structure variable has become the agent variable of market power. As shown in Figure 1, China's stock market condition index and export quantity index.

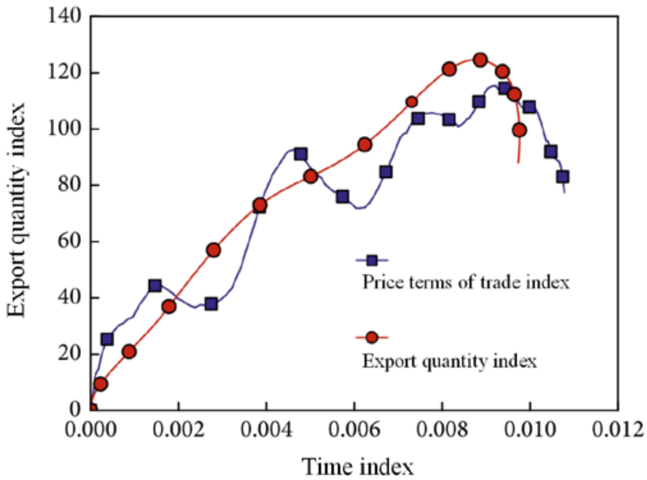

Figure 1. China's stock market condition index and export volume index

If investors turn a deaf ear to them and do not respond to them as they should, the market will also be in a state of zero profit. The uncertainty of macroeconomic policies mainly affects the confidence and expectation of economic entities and the financing cost of financial markets, thus affecting consumption, investment, production and ultimately output [9]. From the point of view of theoretical research, the validity of China's stock market, especially the semi-strong validity hypothesis involving public information disclosure. This theoretical research topic, which is usually carried out only in a fairly mature market environment, has been put on the research agenda of our academic circles ahead of time.

2.2. Basis for Constructing Financial Situation Index

There are three main prices in China's financial market, namely, interest rate level reflecting domestic financing cost, stock market price reflecting direct financing price and exchange rate level reflecting relative price of local currency. The impact of economic policy uncertainty on investment and consumption will also be reflected in the movement of aggregate demand curve. At the same time, the impact of economic policy uncertainty on entrepreneurs' confidence will change the total social supply and cause the total supply curve to shift. Financial instability is also manifested in many levels and aspects. Financial instability is the trigger of the financial crisis, so the potential economic crisis can be said to be a direct manifestation of financial instability. External efficiency refers to the efficiency of capital allocation in the stock market, that is, whether the stock price in the market can make timely and sufficient reflection according to relevant information, so that investors can make decisions quickly. In the weak efficient market, the accounting information disclosed by listed companies has the stock price effect, so the importance of accounting information disclosure is self-evident. Once the relevant information is released, the market will make a timely and sufficient response, so that investors can not get abnormal returns accordingly. Under the effective market environment, according to the content disclosed by the accounting information disclosure system, many new useful information can be transmitted to the market, which helps investors to make rational economic decisions.

3. Information Content Effect Test of Macroeconomic Policies

China's financial industry has only begun to develop gradually in recent years, thus its ability to predict, prevent and respond to risks is relatively poor. Once financial turmoil occurs, it will cause serious losses. If investors search for the information themselves, they will have to go to great pains, incur high costs, and serve a rather limited number of clients, thus easily causing different investors to search for the same information repeatedly. In order to analyze the impact of financial market changes on macro-economy under different stable economic policies, the total supply aggregate demand curve can be used for analysis. Changes in financial market prices will cause changes in aggregate demand curve's position through wealth effect. Real accounting information should be neutral. Neutrality means that the process and results of accounting personnel forming accounting information cannot have specific bias. If investors hold and use relevant public information to make investment decisions at the same time, once the information is released, it is impossible for any investor to obtain extraordinary returns by analyzing the publicly disclosed information. Changes in government macroeconomic policies will have an important impact on financial instability [10]. When the government encourages the development of small and medium-sized enterprises, reducing the interest rates of major commercial banks will promote the development of enterprises, and it will be easier for financial institutions to recover funds.

When information can help users affect their economic decisions by evaluating past, present and future events, information is relevant. If the utility function of investors is not logarithmic, the calculation of relevant results is a problem to be solved. According to the analysis, it is almost impossible to get an analytical solution. According to the price time series of market factors in the past period, the actual changes of price level of market factors in the past periods are calculated. The above calculation is realized by language programming, and the calculation results are shown in Table 1.

Table 1. Analysis and related parameter estimation results

	Constant term	Coefficient term	Fractional dimension	Correlation scale
Daily return rate	0.721	0.742	2.459	0.563
Weekly yield	0.673	0.684	2.336	0.442
Monthly return rate	0.745	0.861	3.475	0.413

Inconsistency of expected rate of return leads to inconsistency of time discount rate of financial institutions. The discount rate of time decreases continuously, and hyperbola is steeper than hyperbola, which means that the degree of inconsistency of time preference is obvious. As shown in Figure 2.

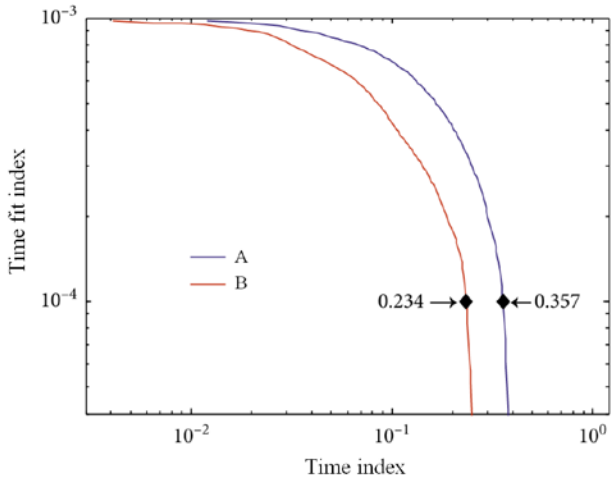

Figure 2. Time inconsistency curve

As macroeconomic policies will affect the order flow and liquidity of capital markets, this paper analyzes the information content of order flow and liquidity while analyzing the information content of macroeconomic policies. Through the research and analysis of the data, it is found that the financial system has been in an unstable state of fluctuation. However, financial institutions will ignore the prevention of risks when they pursue interests excessively, and this neglect of risk factors will increase financial stability. Once the critical point of the system is reached, the system can no longer bear the existence of these unstable factors, and the financial crisis will also erupt. In our country, the stock and bond markets are closely linked. The combination of stock and bond is the most common asset combination. Investors usually allocate assets in risky stocks and risk-free fixed income securities. An indefinite investment plan cannot be drawn up, and the individual investment objectives of asset managers must be achieved in a short period of time. The existence of agency problem makes the time preference of asset managers inevitably internalized in the investment decision-making activities of financial institutions. The comparison data of financial situation risks are shown in Table 2. The data relationship between risk weight value and evaluation value of financial situation is shown in Figure 3.

Table 2. Financial comparison risk data results

	Return on assets	Marginal cost rate	Operating cash flow
Return on assets	1	0.85	0.65
Marginal cost rate	0.77	1	0.58
Operating cash flow	0.56	0.63	1

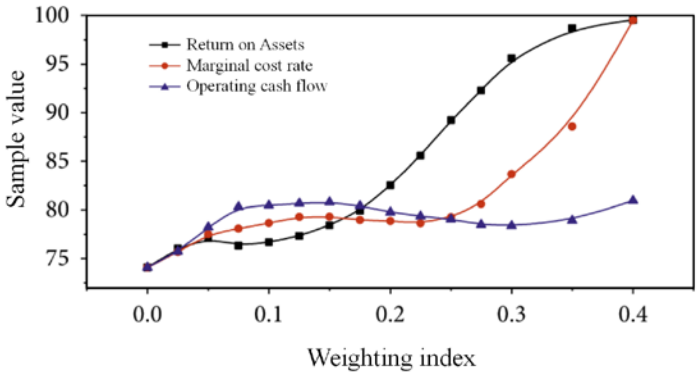

Figure 3. Relationship between financial status risk weight value and evaluation value data

China's capital market and money market, including foreign debts, are in a relatively stable state and there will be no crisis in the short term. However, China's banking industry has been in an unstable state. First of all, the development of small and medium-sized enterprises has increased the loan rate, and the increase in the loan rate has also increased the amount of non-performing loans. When market conditions change, investors will carry out investment transfer, risk hedging and portfolio rebalancing between the two assets. Through the data analysis and comparison, it is found that when the economy grows rapidly and the development trend of the economy is good, the financial instability is positively related to the economic development speed, that is to say, to a certain extent, this instability will promote the economic development. In the stock market, there are more individual investors and serious speculation. Moreover, the supervision is not strict, and the phenomenon of insider trading is serious.

4. Summary

China's capital market started late and is a new capital market. Compared with developed countries, China's capital market system is not perfect, supervision is not strict, and speculation is serious. Under the impact of uncertain policies, the correlation between stock market and macro-economy also has significant asymmetric effect. The dynamic correlation between stock market and macro-economy is restricted by the cyclical changes of macro-economy. When the economy is sluggish and the market is in recession, the dynamic correlation between the two is strong. The Chinese government needs to pay attention to the asymmetric characteristics of the impact of financial market on macroeconomic variables under different economic policy stability conditions, so as to better cope with the adverse impact of financial market volatility on macroeconomic. Starting from the financial index of the ratio of retained earnings to assets, aiming at the stocks of state-owned holding enterprises, it is found that the developed state-owned holding enterprises show a significant positive response to the impact of interest rates. Macroeconomic policy will produce policy risk, which will impact the capital market, and is not conducive to the stable development of the capital market.

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