

The Impact of Information Asymmetry on Investment Behavior in the Stock Market

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Abstract. The stock market is the main component of the capital market and plays an important role in promoting the development of the national economy. Information asymmetry, as a typical issue in China's stock market, triggers stock price fluctuations, increases stock market risks and largely influences investors' investment behavior in stock market. Therefore, improving the information asymmetry problem is of great significance for the stable development of the stock market. This paper depends on the nature of information asymmetry, explores its specific manifestation in the stock market, and then analyses the process of information asymmetry issues on investment behavior. Studies indicate that information asymmetry leads to misdirected investment from three aspects, which include judgment on individual stock, assessment of the market value of the company and expectations of stock market developments, resulting in investor losses. Based on the above conclusions, this paper puts forward recommendations for improvement in terms of market regulation and the legal system: to improve the transparency of stock market transactions through the disclosure of information by regulators and companies. To complete the legislation of the stock market and establish strict punishment mechanisms to ease the problem of asymmetric information and maintain the stable operation of the stock market.

Keywords: Information asymmetry; stock market; investment behavior.

1. Introduction

Stock market promotes national economic development and accelerates the flow of funds and its stable function is the main factor for the healthy operation of economy and society. As a representative of the capital market instrument, stock's profitability and liquidity make it an important means of raising funds and diversifying investment risk. China's stock market has now entered a phase of rapid development, and its scale and the total market valuation are all at the forefront of the world. As an emerging market that has only emerged in recent years, the regulatory mechanisms of China's stock market are not yet mature, and there are loopholes exist in market regulation and information disclosure, causing information asymmetry issues. The negative investment behavior in the stock market caused by information asymmetry leads to considerable fluctuations in stock prices, hindering the steady operation of the stock market. Therefore, alleviating the issue of information asymmetry is of great significance for China's economic development. This study aims to conduct an in-depth analysis of information asymmetry and its impact on the stock market, and put forward some feasible solutions on the basis of previous research to optimize the operation of the stock market, so as maintaining a healthy and stable development pattern while enhancing the efficiency of China's economic growth rate.

Based on the nature and characteristics of information asymmetry, this study analyzes its causes and consequences, investigates its specific manifestations in the stock market, and then explores the potential adverse effects of information asymmetry on investment behavior in the stock market.

2. Literature Review

Information asymmetry in capital markets means that investors may face problems such as adverse selection and moral hazard, which can affect the efficient function of the capital market [1]. Analyzing the issue of information asymmetry from a micro perspective, existing research both domestically

and internationally indicate that information asymmetry increases stock market risk, causes severe fluctuations in stock prices, and leads the stock market to collapse. Information asymmetry results in poor stock synchronization, triggering investors to misjudge the real value of the company thereby exacerbating the company's share price risk. The study concludes through regression analysis that firms with high information asymmetry have a higher degree of positive correlation between stock price synchronization and the risk of stock price collapse [2]. From the perspective of the enterprises themselves, their business credit is positively correlated with stock price crashes. Information asymmetry due to concealment of corporate information raises the risk of stock price crashes, thus increasing market value volatility [3].

Meanwhile, information asymmetry affects stock prices and company market capitalization indirectly by influencing investment behavior. Chinese shareholders are mainly composed of individual investors. Due to the lack of professional knowledge and effective information, that is, information asymmetry issues, investors are prone to irrational conformity [4]. Information asymmetry and the high cost of obtaining information contribute to investors' herd investment behavior in the stock market, which affects the efficiency of stock pricing, and to some extent, resulting in stock price collapse [5].

Scholars have conducted comprehensive research on the current state of the stock market and the impact of information asymmetry, but have not delved into the logical relationship between information asymmetry and stock market investment behavior. Therefore, this paper will analyze the intrinsic relationship between the above two, proposing corresponding solutions to various types of unreasonable investment behavior in the stock market, aiming to fundamentally improve China's stock market.

3. Overview of Information Asymmetry and Stock Investment Behavior

Information asymmetry means that in the process of decision-making or transaction, due to the difference in the quantity and quality of information between the two parties, resulting in the information advantageous position of the party in the decision-making process to obtain more benefits, thus generating unfair distribution of resources or causing market failure. Information asymmetry is mainly caused by the different ability of each party to obtain information, as the acquisition of information requires a certain cost, and the processing of information requires specializing knowledge and experience, the party who cannot afford the high cost tends to obtain less information, which leads to information asymmetry [6]. In the stock market, information asymmetry is mainly manifested as unequal information between stock issuers, investors, and various stock investors. This information gap can cause stock price fluctuations and disrupt the stable operation of the stock market.

3.1. The Manifestation of Information Asymmetry in the Stock Market

3.1.1 Adverse selection

Adverse selection is defined as the main problem arising from information asymmetry, which arises prior to the transaction, and can be understood as the potential lenders who are most likely to cause adverse consequences (adverse selection behavior), i.e., to create credit risk, tend to be those who are most actively seeking loans and are most likely to obtain them [1, 7]. The same is true of adverse selection in the stock market, which is mainly caused by information asymmetry between issuers and investors in the primary market. For ordinary investors, the stock information they have relies more on the financial statements and prospectuses of listed companies, and they are unable to get first-hand information to identify unscrupulous companies and poor-quality stocks, and therefore lack a correct assessment of the value of the stock, and the willingness of the stock value is mostly the average market price of the stock. As the issuer of stocks, listed companies have a clear understanding of their own business situation and the value of the stocks they issue. High quality companies give up selling their stocks because their prices do not meet expectations, while low-quality companies choose to issue more stocks to earn high profits. For rational investors, abandoning

holdings of poor-quality stocks offered by risky companies is clearly the best option at the moment. Under such circumstances, listed companies with stable operations reduce the issuance of high-quality stocks, while the market proliferates with low-quality stocks but loses buyers, making it difficult for the stock market to function properly.

3.1.2 Herd behavior

The herd effect, also known as herd behavior, occurs in immature financial markets with imperfect information and is manifested by numerous investors adopting the same investment behavior at a particular time. In the stock market, the effect is strongly influenced by information asymmetry among investors, i.e., the investor or investment organization has insufficient information and thus chooses to buy the same stock as the investor with superior information. The irrational herd effects have blindness, instability, and convergence, which can easily affect the efficiency of stock pricing and lead to stock price collapse. Most investors in the stock market have narrow channels for obtaining information, limited investment experience, and low level of expertise. Therefore, investors are unable to obtain all market information when selecting specific stocks or deciding on trading time points, which leads to irrational investment phenomena. In order to avoid risk and maintain profit maximization, investors abandon their investment strategies and irrationally follow the same decisions made by a larger group of investors when they do not have sufficient information, thus leading to the herd effect in the stock market [8].

3.2. The Impact of Information Asymmetry on Investment Behavior in the Stock Market

3.2.1 Individual investors' judgment on the value of individual stocks

Based on the characteristics of information asymmetry mentioned above, information asymmetry is usually reflected in information acquisition and information processing. Therefore, in the stock market, investors' Value judgment and subsequent investment behavior on individual stocks can be divided into the following two types: The first is the misjudgment that leads to investment losses. Due to the narrow channels for obtaining information, retail investors, as the disadvantaged party, often lack important indicator information for stock evaluation, such as stock market trends, domestic economic situation, etc., which leads to investors' insufficient access to key evaluation data and information and their judgment of stocks. Ordinary investors at an information disadvantage are unable to obtain early knowledge of the implementation of stock market policies, and their understanding of the market situation is blurred due to external market propaganda and public opinion. This makes most retail investors lack the ability to identify risks and prevent them, that is, they cannot predict the potential risks of stocks and diversify risks during investment, resulting in the misjudgment and investment losses. The second point is the abandonment of judgment thereby generating herd behavior. The high cost of information processing makes investors at different economic levels different in their ability to process information, which in turn leads to differences in the amount of valid information at their disposal. The investment behavior of a stock is based on the assessed value of the stock, and this process involves the analysis of the fundamentals and technical aspects of the stock, of which the fundamental analysis requires the collation and analysis of data on the operating conditions and capital structure of the enterprise; technical analysis relies on investors having strong stock knowledge reserves and investment experience. Most investors do not have the ability to process relevant information, and hiring professionals for information processing requires high costs. Therefore, when choosing stocks for investment, general investors tend to give up their own judgment and choose to imitate other more experienced investors, thus presenting a convergence of investment strategies, which leads to herd behavior in stock market investment.

3.2.2 Investment institutions' expectations for the development of the stock market

Investment institutions in the market have different scales, the amount of information they can obtain and the breadth of access to information channels are also different. Compared to small-scale investment institutions, leading investment institutions in the industry often occupy the majority of resources and have a wide network of relationships, enabling them to obtain a large amount of detailed

market information from multiple channels. They are more sensitive to the trading situation in the stock market and the response to relevant policies. During this process, information asymmetry mainly affects investment institutions' understanding of the economic situation and their expectations of the market.

Differences in the channels through which information is received, resulting in differences in the timing of receipt of policy information by different investment organizations. Informed individuals can obtain policy information in advance and use the time difference in receiving information to make favorable decisions for themselves. When the economy is in a downturn, it is widely believed that holding cash will be safer compared to equity investments, and people are pessimistic about the development of the stock market. The government sometimes formulates favorable policies to promote the development of some industries, and in the stock market, the promulgation of favorable policies will improve the expectations of shareholders, and then promote the stock prices of related industries. There is a time lag between the completion of policy formulation by the management and the release of the policy, and there are some insiders in large-scale investment organizations who are able to obtain news of the promulgation of favorable policies in advance, thus judging that the economic situation of the relevant industry will improve in the future and have a strong development momentum. Therefore, investment companies purchase some stocks in the industry in advance, waiting for the stock to appreciate in the future and make profits. Inadequately informed investment firms, however, are unable to access the policy news in advance, and their perceptions of the market as well as economic trends remain intact, i.e., they do not recognize the future rebound of the stock market and are pessimistic about the stock price, and give up on their investments.

4. Feasible Solution

4.1. Market Regulation

4.1.1 Disclosure of information by governments

China's stock market has developed rapidly in recent years, and the institutional investors in the stock market are rapidly growing and diversifying, but the stock price is characterized by high volatility and the phenomenon of thousands of A-shares falling, which reflects the immaturity of China's stock market and the investment concepts of the shareholders [9]. Inadequate disclosure of information in the stock market leads to the tendency of investors as the information-deficient party to blindly follow the investment behavior of others, thus triggering the herd effect to increase the risk of stock price collapse [10]. Therefore, it is necessary to regulate and guide the trading process of the stock market and the trading philosophy of investors, in order to create a good stock trading environment.

First, regulators should improve the information transmission mechanism to speed up the rate of policy information transmission and increase the amount of information transmitted. Enhance the disclosure of stock market policy information by shortening the time interval between policy formulation and promulgation, strictly controlling leakage of information by those with knowledge of the policy, and increasing the push of policy information, among other behavior. At the same time, the government and other regulatory agencies need to fully interpret the promulgation of the stock market policy, help investors better understand the significance of the policy and the current trend of the stock market, and improve the information asymmetry between stock issuers and stock investors, so as to reducing the risk of the stock market.

Secondly, the regulatory bodies need to strengthen the education of both sides of the stock market and guide them to establish a correct investment philosophy. For financial institutions and their employees, regulatory authorities should regularly provide compliance training, emphasize employees' risk disclosure of financial products, and clarify their information disclosure obligations; For investors in the stock market, the regulator helps them to sort out correct investment concepts, improve their knowledge base through knowledge competitions, lectures and other activities, raise

their awareness of investment risks and reduce irrational investment behavior. The correct investment philosophy and compliant behavior ensure the transparency and fairness of stock market transactions, enabling the smooth operation of the stock market.

4.1.2 Corporate information disclosure mechanism

Accounting information users can only rely on the data published by the accounting information publisher to make judgments on the business situation and development prospects of listed companies, while some enterprises pursue maximum benefits and often choose to falsely report accounting information, which leads to a serious information gap between the information publisher and the user, resulting in losses for investors' interests. Therefore, enhancing the disclosure of corporate information can, to a certain extent, eliminate the information gap and create a healthy trading environment. Firstly, it is essential to co-operate with the investigations of the government and other relevant authorities. Listed companies need to actively cooperate with the information disclosure requirements of government and other market regulatory authorities, maximize the disclosure of information to the public, and shall not refuse to cooperate or falsify information; Strengthen the internal control mechanism of listed companies, and hire authoritative audit institutions to audit the company's various business data [10] to ensure the authenticity and effectiveness of disclosed information. Secondly, the company takes the initiative to disclose to the outside world the real operating information of the company. The company takes the initiative to disclose information and report on major business matters to the outside world, and regularly reports on company changes and decisions to create a favourable business atmosphere. Proactively guiding investors to understand the company's business content and operating environment, explaining the purpose and significance of each decision, and publicly disclosing company operating data in large quantities can help the company reduce information gap while gaining the trust of investors, which is conducive to maintaining stable stock prices and achieving healthy development of the company.

4.2. Legal System

In the stock market, stock issuers make use of the information gap caused by information asymmetry to earn a lot of money from investors. The reason for this phenomenon is the lack of supervision and restrictions on the one hand, and the lack of tough penalties on the other hand, that is, the low cost of making mistakes. Therefore, the introduction of the legal system in the stock market is of great significance in weakening the issue of information asymmetry.

Firstly, improve the stock market legislation and refine the laws and regulations. The current legal provisions do not have a specific and detailed description of the stock market offence, making some investors take advantage of the legal gap to carry out a number of illegal transactions. Therefore, the judicial system in China should further explain the illegal behaviors in the provisions, clarify that they are illegal trading behaviors, and prohibit behaviors such as refusing to disclose information and falsifying information, in order to ensure the safe and efficient operation of the stock market.

Secondly, a mechanism for imposing strict penalties should be established in accordance with the law. Penalties should be imposed in accordance with the law on enterprises and investors that violate stock market laws and regulations and disrupt the market through illegal trading. For example, increasing punishment for listed companies that refuse to disclose information or disclose false information; Increase punishment for investors who engage in malicious transactions. At the same time, establish a systematic stock market credit rating mechanism. Systematically evaluate all trading behaviors of stock market traders, divide them into different credit levels, open different trading rights to traders with different credit levels, and cancel their stock market trading qualifications for traders with poor credit ratings or serious violations. Curbing market irregularities by increasing the cost of making mistakes leads to greater transparency in trading and ultimately improves information asymmetry.

5. Conclusion

This paper analyzes the nature of information asymmetry and its manifestations in the stock market, and explores the impact of information asymmetry on investment behavior in the stock market. To improve the problem of information asymmetry in the stock market by proposing targeted countermeasures and recommendations to address the causes of various investment behavior. Through the research, it can be concluded that the information asymmetry problem in China's stock market is mainly manifested as adverse selection and herding effect. This problem has led to the wrong subscription of retail investors, the wrong judgment of investment institutions on the development of the stock market and the company's market value, and formed the loss of investment interests. Aiming at the different impact mechanisms of information asymmetry on the investment behavior of various types of investors in the stock market, the paper concludes by proposing different solution paths: The government and other regulatory agencies should strengthen information disclosure, interpretation, and education for investors, in order to help shareholders and investors correctly identify the actual situation of individual stocks and stock market trends; Enhancing information disclosure at the company level and improving stock market legislation to assist investors in correctly assessing the market value of companies. The above feasible suggestions are based on the specific action mechanism of information asymmetry, that is, to eliminate the problem of information asymmetry in the stock market more targeted, which is of great significance to maintain the stable operation of the stock market and improve the efficiency of economic operation. This paper only analyzes typical manifestations of information asymmetry and provides corresponding suggestions for typical investment behaviors in the stock market, but does not cover all investment situations in the stock market. The rapid development of the stock market and the variety of stock products have led to more manifestations of investment behavior arising from information asymmetry problems. Subsequent studies can collect more comprehensive investment data through the questionnaire survey method, use empirical analysis to further demonstrate the correlation between information asymmetry and investment behavior, and propose more detailed solution paths.

References

- [1] Frederic S. Mishkin T. *The economics of money, Banking& Financial Markets*. Beijing: China Petrochemical Press, 2010.
- [2] Zhang J, Liu B, Shen H. Stock price synchronization and stock price crash risk - Based on information asymmetry and corporate governance perspectives. *Financial Science*, 2019, 373(04): 13-25.
- [3] Wan D.C. Financing quality and market capitalization volatility of small and medium-sized enterprises: A perspective based on the risk of stock price collapse. *Contemporary Finance and Economics*, 2019, (02): 132-141.
- [4] Zhou L. The impact of "herd behaviour" on China's stock market. *Market Weekly*, 2023, 36(03): 174-177.
- [5] Chong T.L, Liu X, Zhu C. What explains herd behavior in the Chinese stock market? MPRA Paper, 2016.
- [6] Li J. Evolutionary game analysis of herd behavior in stock market under information asymmetry. Lanzhou: Northwest Normal University, 2016.
- [7] Margolies B. The insurance policy as economic tool: Moral hazard and adverse selection as a means of commercial liability insurance interpretation. *Tort Trial & Insurance Practice Law Journal*, 2020, 55(1): 1-32.
- [8] Ooi K.L, Ahmad Z. Social factors and herd behavior in developed markets, advanced emerging markets and secondary emerging markets. *Journal of Contemporary Eastern Asia*, 2020, 19(1): 97-121.
- [9] Ding Y. The impact of institutional "herd behavior" on the volatility of China's stock market. *Jiangsu Social Science*, 2021, (04): 120-129.
- [10] Pan Q.L. Institutional research, information asymmetry and herd effect. Chengdu: Southwest University of Finance and Economics, 2021.