# Analysis and Research on the Financial Risks of China's Stock Market by Registration System and Science and Technology Edition

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Keywords: Registration system, Science innovation edition, China stock market

Abstract: With the launch of the science and technology board registration system, it is a major change in the rule of law in China's capital market securities. The overall idea of the implementation of the registration system is to be market-oriented, focusing on information disclosure, and based on intermediaries, focusing on reducing administrative interventions in the field of issuance audits, and actively playing a decisive role in the allocation of resources. Based on the perspective of capital market government and market relations, this paper discusses the core mechanism and implementation of the science and technology board and the registration system from the aspects of registration review, information disclosure, agency responsibilities, and delisting system. The financial risk of the implementation of the registration system and the analysis of the Chinese stock market have been studied, and practical, scientific and effective risk prevention measures have been proposed from the aspects of the construction of the first payment system, the functional transformation of the investor compensation fund, and the burden of increasing the false statement.

#### 1. Introduction

With the development of the registration system, it entered the Chinese capital market. Under the new economic normal, China's economic development speed has changed from high-speed growth to medium-high-speed growth. Coupled with the promotion of financial deleveraging policy and the implementation of prudent monetary policy, the difficulty of financing for SMEs has been increasing. SMEs are an important force for innovation and development, and are of great significance for realizing the healthy and sustainable development of the Chinese economy. The establishment of the science and technology board and the pilot registration system promoted the direct connection of the innovative and entrepreneurial enterprises to the capital market, lowered the threshold for the listing of small and medium enterprises, optimized the capital environment of innovative and entrepreneurial enterprises, reduced the cost and risk of financing, and enhanced the core competitiveness of enterprises. In view of the fact that Keyac's key service technology and innovative enterprises, as well as the registration system implemented, have higher requirements for stock issuance, trading and delisting, there may be many risks in the market. In order to ensure the smooth operation of the market and make it play its due function, it is especially important to conduct in-depth exploration of the possible risks and prevention of the science and technology board market.

# 2. Introduction to the concept of registration and science creation

# 2.1 Science and Technology Board Introduction

Although the location of the Science and Technology Board is similar to that of the GEM and the New Third Board, it still differs: the key service technology and innovative enterprises of the Science and Technology Board are set up to supplement the shortcomings of the technology market innovation in the capital market; High-tech enterprises are also positioned in start-ups and small and medium-sized enterprises that are temporarily unable to list on the main board; the new three boards mainly provide services for innovative, entrepreneurial and growing small and medium-sized

enterprises. It can be seen that the three complement each other and develop independently. The launch of the science and technology board is not a simple repetition, but has its mission. The establishment of Kechuang Board can further improve China's multi-level capital market and enhance its inclusiveness to science and technology enterprises [1], thereby enhancing its ability to service technology innovation and resource allocation efficiency. At the same time, the science and technology board pilot registration system requires more reasonable arrangements for the issuance, trading and delisting systems, which is conducive to improving the basic system of China's capital market, so as to better promote the healthy operation of the existing market [2].

# 2.2 Science and Technology Board Registration System

### 2.2.1 The meaning of the science and technology board.

Science and Technology Board is the abbreviation of the science and technology innovation section. It is a trading platform for the technology-based and innovative small and medium-sized enterprises [3] It is designed to better serve the technology-based and innovative small and medium-sized enterprises. Financing for technology innovation companies. Kechuang board is set up for companies that are not yet mature in growth. If the approval mechanism is used, the listing of these enterprises will be greatly hindered, and the effect of the policy will not be fully implemented. Therefore, the registration system is listed. standard.

# 2.2.2 The meaning of the registration system.

The registration system is a more suitable market-based stock issuance system. It means that when an issuer applies for the issuance of shares, it must report the various information required to be disclosed to the securities regulatory agency in full and in accordance with the law. The role of the securities regulatory agency is to conduct a formal review of the comprehensiveness, accuracy, authenticity and timeliness of the application documents, without substantive review and value judgment of the issuer's qualifications [4], and to leave the good shares of the company's shares to the market. Decide. The government intervention drastically reduces the market competition principle of better survival of the fittest, helps increase the funding of SMEs, eases the financing difficulties of SMEs, raises the problem of financing, and promotes the development of small and medium-sized science and technology innovation enterprises [5].

#### 2.2.3 Characteristics of the registration system.

First, the stock issuer's issue of stocks only needs to comply with relevant laws and regulations and corresponding procedures, and does not require the approval of government departments. Second, the registration system is post-event supervision, and the issuance is easy. However, after the issuance, the supervision is stricter, and there is a possibility of being delisted at any time, and the requirements for information disclosure are high. Third, under the issuance registration system, investors are more inclined to value investment, and the supply of stocks increases, which can stabilize market fluctuations and reduce speculation [6].

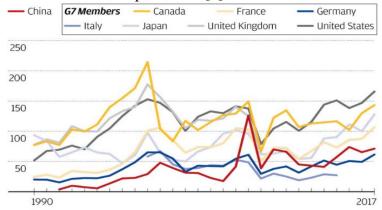


Fig. 1 Characteristics of Chinese Registration System and Foreign Analysis

# 3. Registration System and Science and Technology Edition Analysis of Financial Risks in China's Stock Market

The design of the relevant system of Science and Technology Board may be insufficient and bring risks. Kechuang Board implements a registration system. Compared with the approval system, the registration system has higher requirements for the issuance, trading, and delisting of the shares of Science and Technology. Therefore, there may be risks arising from the imperfect design of related systems in the science and technology board market. First, the risks associated with the sponsorship system.

# 3.1 Science and Technology Edition Financial Risk Analysis

#### 3.1.1 IPO pricing system related risks.

The IPO pricing in China is subject to the inquiry system, that is, the issuer and the underwriters determine the price range through inquiry, and then determine the issue price. At the initial stage of the inquiry system, different inquiry objects often jointly lower the quotation for their own interests [7], resulting in a low IPO issue price and a high return on the first day of IPO. After many reforms, the inquiry system has become more and more perfect, but there has been a new problem that the IPO issue price is too high due to excessive competition of inquiry objects.

# 3.1.2 Risks associated with the trading system.

The current Chinese stock market trading system, such as the T+1 system, the limit of the ups and downs, and the unilateral trading, may have certain limitations. First of all, the T+1 system not only limits the market transaction volume, but also reduces the flow rate of funds. It also prevents investors from adjusting their positions in time according to changes in the market. In most cases, investors' profits will decrease or losses will increase. Secondly, the 10% price limit (ST stocks are 5%) can restrain the risk of excessive growth and decline to a certain extent, but it also facilitates the main institutions to manipulate the stock price, especially Manipulating small and medium-cap stocks.

# 3.1.3 Risks related to the delisting system.

The loose listing conditions under the Chinese stock market registration system will inevitably require a strict delisting system. However, for a long time, the listed resources in China's stock market are scarce, and some core indicators in the delisting system are easily adjusted by humans, which leads to the low efficiency of delisting and the difficulty of delisting. The current delisting adopts a combination of quantitative and non-quantitative indicators. Quantitative indicators are mainly various types of financial data; non-quantitative indicators focus on the truthfulness and legitimacy of company information disclosure, including auditing opinions of certified public accountants, and truthful disclosure of company legal information on time.

# 3.2 Liquidity risk in the science and technology market

Although the Chinese stock market does not face the problem of insufficient liquidity in the initial stage of the establishment of the science and technology market, with the increase of listed companies, some stocks are likely to face problems such as inactive trading and poor liquidity. Judging from the information obtained so far, the idea for Science and Technology Board is that the daily increase and decrease can be as high as 50%; investors are eligible to require financial assets to exceed 500,000 yuan; small and medium investors can invest by purchasing funds, etc. Kechuang board. The number of qualified investors does not seem small, but there are new three boards of the past, with the implementation of the registration system, the listing threshold is reduced, if a large number of enterprises are listed, such a number of qualified investors are just a drop in the bucket. In addition, if the daily price increase is relaxed to 50%, then the amplitude of the stock price in a day can theoretically reach 100%, so the market that rises and falls sharply may not attract institutional investors to enter. For small and medium investors, if there is a significant change in the stock price

of the fund's position, it may lead to huge redemption, which will reduce the liquidity of the position stock. Based on the above assumptions and analysis, the science and technology board market may fall into the predicament of insufficient liquidity.

# 3.3 Risks at the level of the listed company

#### 3.3.1 Management risk of listed companies.

The main products listed on the Science and Technology Board are technology-based and innovative enterprises. These enterprises have great development potential and may grow into important technology giants within a few years, but they also have uncertainties and face greater operational management risks. On the one hand, science and technology enterprises may be eliminated because they cannot withstand the test of the market, or if their innovation is easy to be imitated by their peers, if they cannot occupy a place in the fierce market competition, their survival will be greatly enhanced. Moral hazard is a phenomenon in which the behavior of the other party is not conducive to the action of others while maximizing its own utility in the case of information asymmetry. On the one hand, under the principal-agent relationship, managers aim at maximizing their own utility, rather than aiming at maximizing corporate value.

# 3.3.2 Risks at the investor level under the registration system.

The risk of investor speculation. Individual investors account for the majority in China's securities market, and the investment psychology of individual investors is immature and has strong speculative motives. At the same time, the high turnover rate in China's stock market also means that the market has a strong speculative atmosphere. The company's listed companies are small in scale, facilitating market manipulation and insider trading. Some individual investors will take the opportunity to enter the market for speculative purposes and suffer heavy losses. In addition, stocks with small market capitalization but rich subject concepts have always been sought after by investors. Most of the stocks listed on the Science and Technology Board are likely to be of this type, so they will be favored by investors, but past experience has shown that investors, especially individual investors, often suffer from large losses when they speculate on such stocks.

#### 3.3.3 The valuation risk of investors to the company under the registration system.

On the one hand, because the listed companies of Science and Technology Board are generally in the growth stage, the business hours are not long, the performance is also unstable, and the prospects of the company are uncertain. It is difficult for investors to accurately estimate them. On the other hand, Keyin's core competitiveness, such as scientific and technological content and innovation ability, is an important indicator to measure its value, but the judgment of core competitiveness requires professional knowledge. Ordinary investors are limited by professional level and it is difficult for Science & Technology Co. The value of the judgment is made accurately. In addition, in recent years, the Internet and other technology industries have been hailed by capital, and valuations have risen. In this context, setting up a science and technology board has also led investors to overestimate the market value of the company.

# 3.4 Risks of the registration system on the level of China's stock market regulation

The science and technology board trial registration system, the distribution review rights will be assigned to the securities regulatory authorities, stock exchanges and sponsors, which means that new regulatory issues may arise.



Fig. 2 Data Analysis of China Science and Technology Edition Registration System

# 3.4.1 The regulatory risk of the CSRC.

At present, the main duties of the CSRC are: supervision of securities issuance, listing, trading, custody and settlement, and the relevant departments supervise the business activities of accounting firms, law firms and other intermediaries, and investigate the violations of securities and futures in accordance with the law. Punishment, etc. After the implementation of the registration system, the CSRC will no longer conduct substantive review of the securities issuance, and the focus of the work will be transferred to the event and after-the-fact supervision, so that it can focus more on the whole process of supervision and issuance. However, due to the registration system, the listing conditions have become loose, and the issuers and intermediaries are required to be more self-disciplined and the quality of investors is higher. Such requirements are difficult to achieve in a short period of time, and market risks may be even greater. It is difficult for the CSRC's unilateral supervision alone. Achieve full control of the market.

In addition, the Chinese stock exchange has a low legal status, a small autonomy space, and a strong administrative color. The stock exchange's self-regulatory means are lacking. Commonly used member punishment measures are criticism and public condemnation. Small, can not play a good role in warning, and the regulatory functions of the stock exchange are therefore restricted.

# 3.4.2 The regulatory risk of the sponsor institution.

The person in charge of the relevant department of the CSRC stated that "the legal representative of the sponsor institution shall have supervisory and management duties for the diligence and responsibility of the sponsoring business, the practice sponsor representative and other project personnel, and shall undertake the sponsoring project sponsored by the sponsor institution and the relevant documents signed. The corresponding responsibility". After the implementation of the registration system, the sponsoring organization shoulders the heavy responsibility of listing the company. This requires the sponsor to be honest and trustworthy, with a high level of professionalism, and with due professional care, and urge the listed company to fulfill its obligations and supervise its information disclosure. However, the sponsor may choose the former when it is unable to balance the interests and diligence, and thus the sponsor institution has a weak supervision of the sponsor. In the main board market, there has been a collusion between individual sponsors and listed companies to deceive the investors. An event that brings great benefits to the loss. Although a stricter constraint mechanism has been established for sponsors, it is still more difficult to try to eliminate similar incidents in the science and technology market.

# 3.4.3 Risk linkage between different stock markets.

The linkage of stock market risks at different levels in China. The main board market and the small and medium-sized board and the GEM market are part of China's multi-level capital market system, and there is a risk linkage between them. China's main board and small and medium-sized board market have significant market segmentation before and after the international financial crisis, that is, the main board and the small and medium-sized board market are independent of each other, but there are significant crises in the two-way contagion during the international financial crisis; the

United States, the United Kingdom, Japan, etc. The country's main board and the GEM market showed market segmentation during normal operations, but also showed significant crisis contagion during the financial crisis. It can be seen that there is risk linkage between different levels of markets in the same country. After the establishment of the science and technology board, it is likely to be infected by the risk of other levels of the stock market.

# 3.4.4 Linkage of international stock market risks.

Under the trend of global economic integration, the linkage of major global stock markets has strengthened. Since the Chinese stock market has not yet been fully opened, the link with the international stock market before the outbreak of the subprime mortgage crisis is not very close, and there is its own independent market. The degree of influence of the Chinese stock market by other countries' stock markets has increased significantly, and the degree of correlation between stock markets has also increased significantly indicating that the risk linkage is significantly enhanced. The launch of "Kechuang Board + Registration System" will promote the internationalization of the Shanghai Stock Exchange. With the acceleration of the internationalization of China's stock market, changes in the international market will inevitably lead to increased risks in China's stock market, and risks will be inevitable in the market.

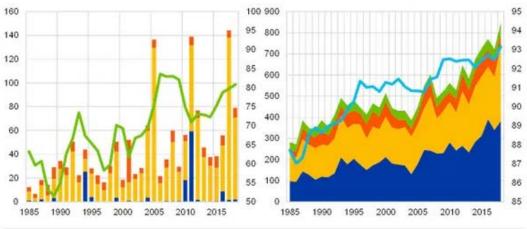


Fig. 3 Linkage between China Science and Technology Edition Registration System and International Stock Market Risk

#### 4. Risk prevention measures for the registration system of science and technology board

In response to the above problems, it is recommended that in order to promote investors' prudent quotation, a margin system will be implemented in the initial inquiry stage, requiring investors to pay a certain percentage of the margin. In the initial inquiry stage, the implementation of the margin system can restrain investors' quotation behavior from the perspective of defaulting credit cost and from the perspective of defaulting economic cost. In addition, it can also increase the threshold for participating in inquiry in other aspects, such as the investment research ability of investors and the scale of management funds, etc., which can improve the professional level of investors' inquiry and reduce the conspiracy of investors and follow-up quotations.

# 4.1 Improve relevant laws and regulations

China's securities market laws are still not perfect, the penalties are small, and there is a lack of warning and shocking effects. The enterprise itself belongs to the insider and is in an advantageous position with the information asymmetry of the investor. Therefore, in the case of low illegal cost, the enterprise often obtains more profit than the illegal loss, which stimulates the fraud and fraud of the enterprise. behavior. Whether it is administrative responsibility or criminal responsibility, China's securities fraud is relatively light. Therefore, China should further improve relevant laws and regulations, clarify penalties and strengthen penalties, thereby increasing the cost of illegal activities,

thereby reducing illegal activities such as securities fraud and maintaining the smooth operation of the securities market.

# 4.2 Sound investor protection system

Under the registration system, there is a strict delisting system, so on the other hand, the number of delisting enterprises will increase, so that the interests of investors will face the risk of loss. At present, because the relevant laws and regulations of China's securities market are not perfect and detailed, investors claim that civil compensation has greater obstacles and difficulties. For investors, litigation compensation also requires higher costs, which further inhibits investors. The rights protection behavior has led to the serious damage to the interests of a large number of investors when some companies withdraw from the market, which is not conducive to the development of the securities market. Therefore, China should further improve the relevant laws protecting investors, improve the civil compensation mechanism, and effectively safeguard the interests of investors. In addition, the board's listing threshold is low and the market risk is high. However, the threshold of investors is too high, which may cause the problem of insufficient liquidity in the market. Therefore, when investors enter the market, they should reasonably set the threshold for investors' access funds in combination with the expected market liquidity, and indirectly enhance the investor's risk awareness to protect the interests of investors and reduce market risks.

#### 4.3 Focus on the cultivation of rational investors

In China's securities market, individual investors account for a relatively high proportion of institutional investors. However, individual investors are mostly retail investors, lacking professional and skilled investment knowledge and ability, and often not rational enough, and have certain follow-up investment phenomenon. China stock market The higher turnover rate also illustrates this. However, such speculation is not conducive to the formation of reasonable prices in the stock market, further triggering market risks. In order to reduce the possible speculative risks in the science and technology market, institutional investors have professional investment knowledge and strong investment ability, and institutional investors tend to invest in value, mostly for medium and long-term investment, which can stabilize market prices. Therefore, it is necessary to strengthen the promotion of institutional investors, increase the proportion of institutional investors in the market, and at the same time strengthen investment training and education for individual investors, change their speculative ideas, cultivate rational investors, and stabilize the stock market.

#### 5. Conclusion

The registration system and the trend of the science and technology version of the financial risk market in China's stock market are conducive to promoting China's economic strategic transformation and supporting the promotion of China's technological innovation enterprises, the launch of the science and technology board, mainly to improve market activity, and Focus on the development of the real economy to promote China's new economic development. Therefore, science and technology innovation enterprises must dare to develop and seize the opportunities of the times, thus promoting the continuous innovation of China's financial sector.

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