

Original Paper

IPO Pricing Theory and Mechanism under the Registration System

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Abstract

When a firm makes an initial public offering (IPO) and qualifies for listing, it negotiates and determines a price with its underwriters for the public sale of its shares to specific or non-specific investors. This paper elaborates the theory of IPO price suppression through literature review and analysis, and also summarizes the IPO pricing mechanism. It helps to provide guidelines for the study of IPO pricing in China under the registration system environment and assists the regulators to further improve the relevant regulations.

Keywords

Registration system, IPO price suppression, IPO pricing efficiency, share issuance system

1. Background and Significance of the Study

1.1 Background of the Study

The strategic position of the capital market in China's economy, especially in promoting the high-quality development of the economy, has become increasingly prominent, and the importance of the primary market cannot be ignored. In the capital market, the primary market plays a crucial role. It is not only a platform for capital demanders to raise capital, but also provides a channel for capital suppliers to convert savings into investment opportunities, thus promoting the continuous optimization of resource allocation. In order to better serve the development of real enterprises and play the role of market allocation of resources, with China's gradual implementation of the registration system reform, the market vitality has been significantly improved, although the pricing of new share issuance is closer to the market, some new problems have also surfaced.

1.2 Significance of the Study

IPO pricing has always been a key concern of the capital market, and Ibbotson put forward the "mystery of IPO price suppression" in 1975, so scholars have carried out detailed research on IPO

pricing and accumulated a large amount of literature. Due to China's special institutional background and issuance system, there is a significant difference between China's securities market and that of foreign countries, and China's stock issuance has implemented the approval system to the approval system and then to the current full registration system. By combing the relevant studies on IPO pricing, it is conducive to enriching the theory of IPO pricing, and it brings new ideas for the study of IPO price.

2. IPO Pricing Based on Information Asymmetry Theory

The information asymmetry theory reveals an important factor in IPO price suppression, i.e., differences in information acquisition among issuers, underwriters and investors, and this information asymmetry leads to IPO pricing that fails to adequately reflect the true value of the market.

2.1 Signaling Theory

The signaling theory explains the pricing of IPOs in the primary market based on the direct relationship between investors and issuers. The theory suggests that issuers are more aware of the value of the company than institutional investors, and that since investors do not have a clear picture of the actual state of the company, they face a "lemon problem" and are therefore cautious in their investments. Issuers often choose to hire reputable underwriters and auditors in order to ensure that the market perceives the value of the company accurately (Cater & Manaster, 1990). At the same time, they may also signal that the company has good growth potential through a price-suppressed offering, which will increase investor confidence once the stock price rises after the IPO (Allen & Faulhaber, 1989).

2.2 Winner's Curse Theory

This theory explains the IPO price depression problem through the information asymmetry that exists between investors. The theory suggests that there are informed and uninformed investors in the market. Informed investors will buy undervalued stocks because they know the value of the company, while uninformed investors who are not prepared to judge the value of the company tend to buy overvalued stocks and suffer from the "winner's curse risk". Therefore, to compensate for the loss of the uninformed investors, the issuer will issue new shares at a depressed price to attract other investors (Beatty & Ritter, 1986).

2.3 Signal Display Theory

This theory explains the phenomenon of IPO price suppression through information asymmetry between investors and underwriters. According to this theory, investors know more information about the firms than the underwriters and therefore the underwriters have the opportunity to obtain more information about the firms through price suppression (Hanley & Hoberg, 2012). Underwriters play a crucial role in mitigating information asymmetry between issuers and investors. In addition, underwriters can improve the quality of issuers' disclosure (Roosenboom, 2012).

2.4 Information Regulation Assumptions

The theory is that the IPO audit inquiry can alleviate the information asymmetry between investors and

issuers, thus improving the efficiency of IPO pricing. In the United States, IPO inquiries are not disclosed until 20-4 days after the IPO is listed in Europe, while in China, inquiries during the IPO review process and the company's responses are publicized before the IPO is listed, which enhances the pricing efficiency of China's IPOs. The exchange publicizes the inquiries of the proposed listed company and asks the company to reply, which provides more reference information for institutional investors to evaluate the value of the company (Xue Shuang and Wang Yu, 2022). And the inquiry mechanism can improve the quality of corporate disclosure as a way to enhance the IPO pricing efficiency (Hu, 2021).

3. IPO Pricing Mechanism under the Registration System

3.1 Principles and Methods of IPO Pricing under the Registration System

Under the registration system, the pricing process of IPO (Initial Public Offering) focuses on the valuation of individual companies. The system of theories and methods on IPO pricing is now quite well developed. The main objective of investors when choosing an investment strategy is to assess the intrinsic value of a company. There are two main valuation methods: absolute valuation and relative valuation. Relative valuation methods involve a series of models, such as price-to-earnings (PE) model, price-to-book (PB) model, price-to-sales (PS) model, PEG valuation model, and EV/EBITDA valuation model. These methods estimate the value of a target company by comparing average metrics of similar companies or industries.

Absolute valuation, on the other hand, focuses more on calculating the company's expected future cash flows. It mainly includes discounted cash flow (DCF) and dividend discount method (DDM). The core principle of both is to estimate a company's current value by projecting future cash flows and then discounting them. This method more accurately reflects a company's long-term growth capacity and profitability.

3.2 Marketization of IPO pricing under the registration system

IPO pricing is a complex process that involves interactions and games between the supply and demand of IPO shares, and issuers and underwriters usually set the pricing at the highest possible level because a higher issue price can bring more capital gains to the company. However, excessive IPO pricing may cause investors in the secondary market to face greater risks when purchasing new shares, resulting in volatility of share prices in the secondary market. Despite information disclosure by companies through prospectuses and other means, asymmetric and inaccurate information remains an important factor affecting IPO pricing. Investors may lack sufficient information when making investment decisions, thus increasing the difficulty and risk of investment decisions. IPO pricing is affected by relevant institutional norms, and thus different institutional norms may lead to differences in IPO pricing efficiency. Therefore, information asymmetry and the game of interests of all parties are crucial to IPO pricing, and full disclosure of information and transparency of information should be ensured to promote fair dealings between investors and issuers.

The core of information disclosure is to correct imbalances in the pricing mechanism caused by market information asymmetries. However, in practice, issuers often undermine the transparency and fairness of information due to problems such as manipulative information screening or incomplete disclosure. Manipulative disclosure is rooted in the speculative mentality of company insiders who try to steer the direction of the market through information disclosure; while incomplete or defective information disclosure is due to the lack of professional competence and experience of the issuer or staff responsible for information disclosure. This not only affects fair trading in the market, but also hinders the healthy development of the capital market.

In response to the challenge of information asymmetry, the registration system imposes more stringent regulations on the disclosure mechanism of initial public offerings (IPOs) to ensure that all key information that may affect market valuation or investment decisions is disclosed in a timely, fair, and comprehensive manner, and to safeguard the truthfulness, accuracy, and completeness of the information. Under this regime, the role of the regulator has fundamentally shifted from reviewing issuance documents to verifying compliance and truthfulness of disclosures in order to enhance market transparency.

Under the framework of the registration system, the IPO audit and inquiry process plays a pivotal role, and its mode of operation has changed significantly compared with the approval system. The audit process is fully electronic, which not only enhances the work efficiency, but also makes the audit process, inquiry details and feedback from issuers and intermediaries public through an open and transparent online platform, which greatly enhances the transparency and credibility of the audit. In addition, the focus of the questioning has changed from focusing on the assessment of the company's investment value to focusing more on the comprehensiveness, truthfulness and accuracy of the information disclosure, with particular emphasis on the detailed disclosure of potential risks, a change that aims to improve the quality of the information, enhance the professionalism and pertinence of the auditing and questioning, and assist investors in making a more rational investment decision.

The participation of professional investors is crucial for IPO pricing. In the context of the registration system, the qualification requirements for online and offline subscribers have become more stringent, especially in the offline RFQ process, which brings together institutional investors including securities firms, fund companies, futures companies, trust companies and so on. With their profound industry insights and professional analytical capabilities, these institutions play an important role in the IPO pricing process, and their RFQ results become an important reference for pricing. At the same time, in order to maintain market order and the interests of all parties, the regulatory authorities have formulated detailed rules and regulations on the behavior of investors' subscription and quotation to ensure the smooth and fair operation of the market.

4. Secondary Market Pricing Mechanism Under the Registration System

A company's IPO is the starting point for its share price, but secondary market price movements after

the IPO are more complex. This depends not only on the individual attributes and performance of the company, but is also influenced by the overall valuation environment of the entire secondary market. The implementation of the registration system has brought fundamental changes to the stock market, building a freer and more inclusive market environment. Under the registration system, as the market continues to expand, quality differences between listed companies have gradually emerged, which has led to price and liquidity divergence in the secondary capital market.

The secondary market of the stock market is highly dependent on the flow of information, and stock prices are a comprehensive reflection of new information added to the market. In assessing the market effectiveness of China's stock market, most studies have concluded that it is in a weakly effective state, and even exhibits ineffectiveness at certain stages. The A-share market has historically experienced several irrationally sharp fluctuations that were decoupled from economic fundamentals, in particular the 2014-2015 ups and downs, and these events have caused serious losses to investors and disrupted the stability of the financial market, as well as reflecting the fact that the stock market The pricing mechanism of the secondary market is problematic.

5. Conclusions and Recommendations of the Study

5.1 Conclusion

1, IPO pricing is more complex than share placement, public offering, directed issue and other financing methods, it will be affected by the secondary market stock prices. ipo pricing problem exists in the global new share issuance. Although a large number of studies have explored the phenomenon of IPO price suppression in depth and explained it through theories such as information asymmetry, these studies are mostly based on the experience of mature foreign markets or China's main board market. Given the characteristics of the registration system in China's securities market, the existing foreign IPO pricing theories cannot well explain the problems in China's capital market.

2. The IPO inquiry and pricing mechanism in the IPO system, as a key system, has a significant impact on the behavior of issuers, investors and intermediaries such as underwriters, and is directly related to the efficiency of IPO pricing. Although China has fully implemented the registration system of new share issuance system and introduced the pricing mechanism of IPO inquiry, given that these reforms have been implemented for a short period of time and there are differences with the mechanisms in mature foreign markets, the effect of their implementation still needs to be observed through further observation. The full implementation of the registration system provides a broader empirical basis and research perspective to explore how the issuance system deeply affects IPO pricing. Therefore, it is of great value to analyze the IPO issuance system and the market-based IPO inquiry and pricing mechanisms under the registration system, and to understand how these mechanisms affect the various participants to optimize the efficiency of IPO pricing.

3. As a key part of the registration system reform, the core objective of the Exchange's IPO audit and inquiry system is to enhance the quality of information disclosure of the proposed company through the

inquiry process, to provide investors with more detailed and truthful information, to help them accurately assess the value of the company, and to enhance the efficiency of IPO pricing.

5.2 Recommendations

The core value of the registration system lies in the ability to build an efficient and synergistic primary and secondary market-based pricing system. Analyzing from the theoretical level, the registration system is expected to form a market-oriented pricing mechanism based on information disclosure as the core foundation in China's A-share market.

China's registration system initially began with the pilot of the KEM, GEM and NSE, and through the gradual accumulation of experience, the system was eventually extended to the main board market, realizing the comprehensive coverage of the registration system. With the deepening of the registration system reform, its institutional framework has become increasingly clear, comprehensively covering national securities trading venues and various public offering activities. The reformed Main Board is characterized by "large-cap blue chips" and has set diversified listing standards, forming a distinctive market positioning with the Science and Technology Innovation Board (STIB) and the Growth Enterprise Market (GEM). At the same time, the audit and registration system of the Main Board and the Science and Innovation Board and the Growth Enterprise Market are interlinked, together shaping a multi-level capital market pattern led by the registration system.

The goal of the full implementation of the registration system in China's stock market is to further enhance the support to the real economy through the market-based pricing mechanism and to help the high-quality development of the economy. However, the reform of the registration system is difficult, and due to the relatively short period of time for the implementation of the registration system in China, a series of challenges and problems will still be encountered in the actual implementation process, so this paper puts forward the following recommendations.

First, the responsibility of issuers, as the primary duty bearers of information disclosure, should be further strengthened, while intermediaries need to scrutinize the information they disclose to ensure that market disclosure standards are met. Although the registration system provides more opportunities for IPO listing and allows non-profit-making enterprises to go public, it does not mean lowering the regulatory requirements on the quality of listed companies or lowering the responsibility of issuers. Due to the potential benefits of listing, some non-compliant enterprises may conduct fraudulent offerings through financial fraud. Therefore, on the basis of compliance and reputational mechanisms, there is a need to ensure that the interests of listed companies, intermediaries and investors are sufficiently gamed to prevent chaos. In addition, a mechanism for class action lawsuits and compensation for small and medium-sized investors must be swiftly constructed to effectively safeguard their legitimate rights and interests.

Secondly, we should strengthen the continuous supervision of listed companies to ensure the quality of their development. The problem of information asymmetry is prevalent in the secondary market;

therefore, continuous and adequate information disclosure is the basis for the pricing function of the secondary market as well as for safeguarding market stability. Under the registration system, special attention needs to be paid to possible performance fluctuations and risk of business failure after listing, which may affect the quality of listed companies. Regulators should focus on key aspects such as internal governance, standardized operations and information disclosure to ensure the quality of listed companies.

Thirdly, it ensures that the delisting mechanism is unimpeded and facilitates the replacement of the old with the new in the capital market. Under the registration system, an efficient market-based pricing mechanism relies on the superiority and inferiority functions of stock prices for the purpose of resource optimization. However, the reason for the instability of stock prices under the approval system lies in the imperfect delisting mechanism of enterprises. Therefore, under the registration system, regulators should establish a clear delisting mechanism, further improve the delisting criteria, simplify the relevant processes, and explore diversified exit methods. In addition, it is also necessary to strengthen the supervision of delisting to ensure that the delisting mechanism becomes a normal part of the healthy development of the capital market, so as to maintain the fair, just and efficient operation of the market.

Fourthly, the supervision under the registration system should be strengthened and severe penalties should be imposed on securities violations and illegal acts. The success of the registration system depends on a sound legal environment, although the legal framework has been established, but the implementation is the key. Need to increase penalties for major violations of the law cases, through administrative, civil, criminal and other multi-dimensional accountability, to achieve an effective deterrent to market participants. Help consolidate the rule of law and integrity of the stock market, purify the market environment, and lay a solid foundation for the healthy and stable development of the market.

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