Research on IPO Listing Inquiries of Information Transmission, Software and Information Technology Services Industry

Yihong Li [1, *, †], Xinyang Shi [2, †], Rui Yuan [3, †]

[1] Department of Business College, Wuxi University, Wuxi, China

[2] Department of Boustead College, Tianjin University of Commerce, Tianjin, China

[3] Department of Finance, Yunnan University of Finance and Economics, Kunming, China

* Corresponding author: 20202339013@stu.cwxu.edu.cn

[†]These authors contributed equally

Abstract. IPO inquiries are one of the key topics of research today. Scholars have identified many issues, but there is still a gap in the research on the correlation between IPO inquiry rounds and performance. Therefore, the research topic of this paper is a study of IPO inquiries in the information transmission, software and information technology services industry. The research methodology of this paper is as follows: firstly, we collect the questions and results of IPO inquiries, screen the data, and then calculate the volatility and the underpricing of each round of IPO inquiries by comparing the data. Finally, the total number of questions asked by IPO companies was counted in order to identify high-frequency key questions. The study finds that IPO inquiries have a significant impact on the timing of IPO, the underpricing and volatility of companies. The study suggests that the enterprises being questioned should do a good job in related areas and improve the quality of information disclosure to reduce the negative impact of IPO inquiries. Regulators should improve the monitoring of information disclosure quality of listed companies to protect investors' rights and interests and enhance the governance role of IPO inquiries in capital market resource allocation. Investors should always pay attention to the process and results of IPO inquiries of the companies they care about, and understand the financial status and management system of the companies through IPO inquiries, so as to facilitate their own investment and protect their own rights and interests.

Keywords: IPO Inquiries, Information Transmission, Software and Information Technology Services Industry, Underpricing, Volatility.

1. Introduction

IPO inquiry is what every company must go through before going public, then IPO inquiry is especially important for companies that want to go public. China has set up the Sci-Tech innovation board (STAR-Market) and piloted the registration system since 2018, and financial institutions nationwide have responded. As of August 2022, it has been more than three years since the birth of the STAR-Market, and the registration system has been tested by the A-share market for more than three years. This paper takes the information transmission, software and information technology service industry of the STAR-Market as the research object, according to which 71 enterprises have been enrolled in the Board, but there are still enterprises that have not been successfully enrolled through IPO inquiries, and the research on the problems of IPO inquiries will provide new ideas for IPO inquiries and enterprises applying for listing.

In this paper, we analyze the IPO inquiry information transmission, software and information technology services industry based on the number of IPO inquiries collected, underpricing, volatility, number of questions asked, and content. Firstly, we analyze the probability of IPO in the software and information technology services industry based on the number and content of IPO inquiries, and secondly, we compare the underpricing and volatility among listed companies based on the change of stock price after listing. The correlation between IPO inquiries and companies' listing performance is derived, and the significance and conclusions drawn in the period.

2. Review of the literature

IPO inquiry is a derivative of the IPO registration system after its establishment, and an important part of the process of understanding the economic situation and management system of the companies applying for listing [1]. China learned from the experience of the dual registration system in the U.S. and created a registration system based on China's political economy. in July 2018, China's IPO registration system was first piloted on the STB [2]. China currently uses the Shanghai Stock Exchange IPO audit inquiry to regulate the issuer's disclosure practices on the STAR-Market [3].

According to the literature reviewed, firstly, the share price of VA Linux in the US spiked on the first trading day, and in response to this it was questioned and asked to provide relevant information for its investigation [4]. China took Yuanjie Technology as an example and found that there were problems with the disclosure of information of this company, so China made an IPO inquiry about it [5]. Secondly, three US companies Goldman Sachs, Morgan Stanley Dean Witter and Bear Stearns were suspected to have illegal activities regarding stocks, then the transaction records related to IPO activities had to be handed over [6]. China Kesun was questioned by the IPO for using a large amount of funds for other purposes and later responded to the questions [7]. It is concluded that U.S. companies have effectively discouraged corporate tax avoidance after IPO inquiries, and the Chinese market is fairer and more transparent to protect investors' interests [8].

However, there is little research in the literature on the relationship and impact of IPO inquiries on listed companies. In this paper, we analyze the data on the number and content of IPO inquiries and analyze them to find out the impact of IPO inquiries on listed companies, and calculate the underpricing and volatility [9] to analyze the relationship between IPO inquiries and the impact of IPO inquiries on companies, drawing on the statistical method and graphs used by scholars [10]. The data obtained were analyzed to find out how IPO inquiries help and hurt the applicant listed companies, and to provide information on the content and number of IPO inquiries and how the applicant listed companies will respond to IPO inquiries.

3. The concept and significance of IPO inquiries

By examining the concept and meaning of IPO inquiries, companies and regulators can adjust their approach to IPO inquiries to suit their own circumstances.

3.1. The concept of IPO inquiry

IPO inquiry refers to the corresponding regulator's examination of the enterprise applying for listing, the enterprise makes the application documents according to the regulator's demand, submits the relevant information to the exchange to prepare for listing, and after the application is accepted, it formally enters the examination and inquiry link, and issues a public letter to ask questions about the financial status of the listed company applying for listing, and the enterprise needs to reply to the doubts in the inquiry one by one.

3.2. The significance of IPO inquiries

The capital market is essentially an information market, and investors make investment decisions based on the information they have, so the timeliness and effectiveness of information is an important factor in determining the efficiency of capital market operation. IPO inquiries play a vital role in the operation of the capital market, and their role is mainly reflected at the enterprise level and market level respectively.

3.2.1. Corporate Level

With the deepening of China's capital market reform and the increasing standardization of IPO audit procedures, some high-quality enterprises have been able to conduct systematic research in the process of development, thus making IPO inquiries a success. IPO inquiries are of great importance to the strategic development of enterprises, effectively solving the problems of corporate financing and enabling profound changes in the mode of raising funds. At the same time, IPO inquiries have a significant deterrent effect on the information disclosure behavior of listed enterprises, so they can regulate the listing system of enterprises, identify potential problematic points of enterprises and urge them to make corrections. The quality of corporate information disclosure is improved to ensure its authenticity and validity. The listing of an enterprise after passing the IPO inquiry can make fundamental changes to the enterprise's financing ability and financial management, and the enterprise's own fund-raising ability will be significantly enhanced. However, it should also be noted that the IPO inquiry also puts forward higher requirements for the financial management of enterprises, and more attention should be paid to the openness and transparency of financial information. At the same time, the IPO inquiry is conducive to improving the goodwill of the company and the company's reputation in the industry, which has a huge publicity effect.

3.2.2. Market Level

IPO inquiries can enable the implementation and enforcement of securities market laws and regulations. It can regulate the listing system of enterprises, urge listed enterprises to make rectification, improve the quality of enterprise information disclosure, ensure its authenticity and validity, and thus enable the implementation and enforcement of securities market laws and regulations. Investors can get important information through the process of IPO inquiry, which can protect the interests of investors and maintain the stability of the capital market.

And investors can get important information through the process of IPO inquiry, so that the interests of the general investors can be protected. The regulators can make full use of the review mechanism in China's listing system to maintain the stability of the capital market and improve the operational efficiency of the capital market, and improve the effectiveness of information disclosure in China's stock market. It becomes extremely important to sort through the regulators' inquiry letters and questions to discover the inherent tendencies and patterns.

4. Main points of IPO inquiries

As the first step to going public, a classification of the inquiries and statistics can help to better understand the areas of focus of the regulators, with a view to having a role in preparing companies for IPO. The data in this article mainly comes from Wind, CSMAR, and the official website of the Securities Supervisory Commission. A total of 133 companies in the information transmission, software and information technology services industry have been inquired questions by the IPO since the opening of STAR Market on November 5, 2018. According to Wind database information, a total of 311 inquiry letters were consulted, and a total of 6,121 questions were marked by marking the inquiry points of the inquiry letters, and then the inquiries were divided into 18 major categories and 368 subcategories. Through the above categorization statistics, we aim to obtain regular findings.

The frequency of the regulator's IPO inquiries in the information transmission, software and information technology services industry has been calculated for each point. It is found that there are high frequency areas that they focus on, and the statistics for these high frequency questions are as follows:

4.1. Key points of financial inquiry

As seen in Table 1, indicators such as Revenue Recognition, Income from Operations, Gross Profit Margin that show the profitability of a company are at the top of the list. The regulator's focus on the financial status of a company is its profitability.

Table 1. Key points of financial inquiry

Number	Financial inquiry points	Number of companies	Inquiry rate
1	Revenue Recognition	131	99.24%
2	Income From Operations	130	98.48%
3	Gross Profit Margin	130	98.48%
4	Costs From Operations	128	96.97%
5	Accounts Receivable	123	93.18%
6	Accounting Policies and Treatment	122	92.42%
7	Research and Development Expense	117	88.64%
8	Selling Expenses	111	84.09%
9	Inventory	109	82.58%
10	Bad Debt Allowance	108	81.82%

4.2. Financial Indicators

As can be seen from Table 2, the gross profit margin ranks the highest among the core financial indicators and far exceeds the rest. The 2nd, 3rd, and 4th ranking indicators are all indicators of capital operation ability, which shows that the regulators attach more importance to the long-term profitability of enterprises than capital operation ability.

Table 2. IPO inquiry rate of the top 10 financial indicators

Number	Question type	Number of companies	Inquiry rate
1	Gross Profit Margin	130	98.48%
2	Accounts Receivable Turnover Ratio	31	23.48%
3	Inventory Turnover Ratio	30	22.73%
4	Solvency	22	16.67%
5	Profit Rate	20	15.15%
6	Growth capacity	14	10.61%
7	Return on Assets	2	1.52%
8	Other Operating Capability Indicators	2	1.52%
9	Other Profitability Indicators	1	0.76%
10	Fixed Assets Turnover Ratio	1	0.76%

4.3. Key points of Non-Financial Inquiries

As can be seen from Table 3, in the non-financial aspects, the regulator attaches great importance to the stability of the enterprise's operating conditions, long-term profitability, and the standardization of expression.

Table 3. IPO Inquiries of the top 10 Non-Financial Inquiries on

Number	Non-financial inquiry points	Number of companies	Inquiry rate
1	Other risk tips	131	99.24%
2	Core Competence	131	99.24%
3	Important Customers	128	96.97%
4	Verification of Related	128	96.97%
5	Significant contracts and performance	125	94.70%
6	Procurement business related	125	94.70%
7	Reasonableness of language expression	121	91.67%
8	Internal Control	120	90.91%
9	Industry status	120	90.91%
10	Ability to continue business	119	90.15%

As can be seen from the above three forms, the focus of the regulator's inquiries remains on the stability of the enterprise's operating conditions, profitability, and the possibility of long-term profitability. Therefore, enterprises preparing for IPO inquiries and listing should check and focus on the indicators related to these aspects in advance to reduce the amount of inquiry.

5. Impact of IPO inquiries

IPO inquiries have their key concerns, but their impact on the listing of enterprises still needs further research and discussion. This paper selected companies in the information transmission, software and information technology service industry of STAR Market as the research target. A total of 553 companies have gone public in the Board, with an average time of 263 days. Among them, a total of 133 companies in the information transmission, software and information technology services industry have gone through IPO inquiries, and a total of 71 companies have been listed after being inquiries as of October 27, 2022, with a listing probability of 53.79%. The number of rounds of IPO inquiries since the opening of the Sci-Tech innovation board has ranged from one to six. The number of rounds is an indicator that may have an impact on the performance of companies' listings. Therefore, this paper will discuss the impact of different rounds of IPO inquiries from two perspectives: underpricing rate and volatility.

5.1. IPO inquire about underpricing rate performance of companies in different rounds

The underpricing rate can reflect the performance of the companies' listing to some extent. To more accurately reflect the trend, this paper calculates both the median and the average of the underpricing rate. The sample of this paper excludes the companies that were audited and approved after October 1, 2022: C Yongxin (688246), C Xinhuan-U (688031), and C Jinjuzi for better statistics on the performance of related companies after listing. Among the remaining 68 listed companies there are 61 companies with underpricing rate greater than 0, accounting for 89.71%, and 7 companies with underpricing rate less than 0, accounting for 10.29%. The median underpricing rate is 1.04, and the average underpricing rate is 1.26

The calculation will also classify the sample into listed, IPO terminated, and unlisted. Since the listing results of unlisted companies are unknown, listed companies and IPO termination companies are selected as the study sample to better study the relationship between the number of inquiries rounds and the performance of companies. The following results were obtained.

Table 4. Different Inquiry rounds of company situation

Inquiry Round	Number Of Listed Companies	Number of unlisted companies	Total number of companies	Number of companies with underpricing rate above the average	Number of companies with underpricing rate above the median
First Round	0	30	30	0	0
Second Round	36	23	59	10	12
Third Round	11	11	22	6	7
Fourth Round	13	2	15	6	9
Fifth Round	4	1	5	4	4
Sixth Round	2	0	2	2	2

After calculating the average values of underpricing rate of listed companies in rounds 2-6 are: 0.90, 1.73,1.38,2.36,2.82; the median values of underpricing rates are 0.45, 1.51,1.19,2.51,2.82, and the graphs are obtained as follows:

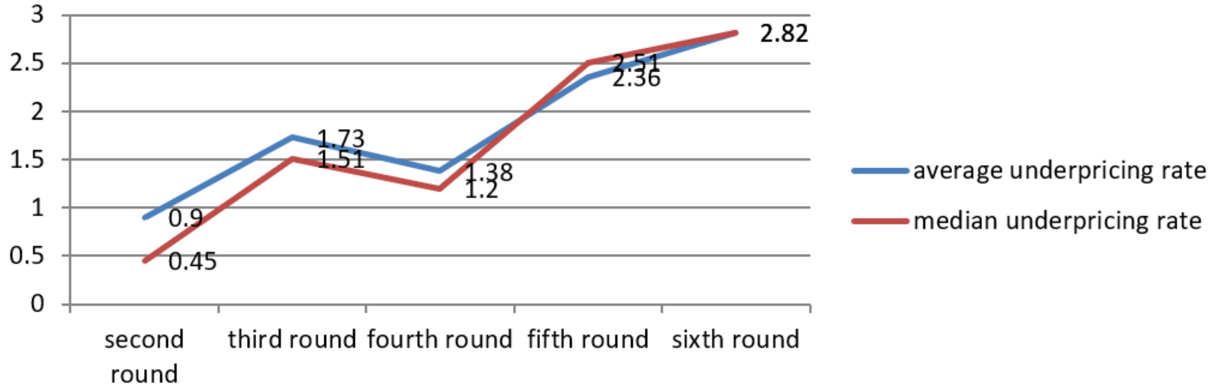

Figure 1. Performance of underpricing rate per round

As seen in Figure 1, the underpricing rate of listed companies in this industry zigzagged up from the second round, both in average and median. Thus, it can be concluded that the listing performance of companies has been strengthened to some extent as the number of inquiry rounds increases.

We also counted the probability of companies listing in each round. This probability=The number of listed companies per round/ (number of listed companies per round + number of IPO terminated companies per round). Since the listing results of unlisted companies are unknown, the relationship between the number of inquiries rounds and the performance of enterprises is better studied because listed enterprises and IPO termination companies are selected as the study sample. The following results were obtained.

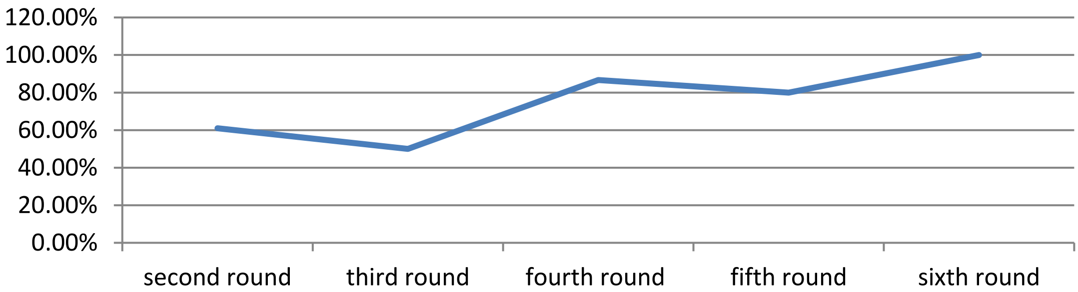

Figure 2. the probability of companies

Figure 3. Distribution of rounds of IPO inquiries

As seen in the chart, 48% of the companies have only gone through two rounds of inquiries (listing or termination). As one round of requirement lasts roughly three months, two rounds of requirements usually span six months. While some companies have behaviors such as advancing earnings and over-collecting funds during the audit period these behaviors are usually exposed in the third window because of the re-disclosure of annual and semi-annual reports. Therefore, the third round of inquiries has the lowest probability of listing. Also due to the long time of the window period, companies in the fifth and sixth rounds do not have the above financial problems, so the probability of listing surges.

At the same time, this paper counts the distribution of companies in different rounds:

5.2. IPO inquiries about the performance of volatility of companies in different rounds

Volatility can reflect the stability of companies and investors' expectations to some extent, and is also a good indicator of companies' listing performance. In this paper, the volatility (annualized variance of daily returns for 21 days after listing) of 68 listed companies in this industry of STAR Market is calculated to observe the impact of the rounds of inquiries. To increase the robustness of the data, the average volatility and median volatility of each round are also calculated.

The average volatility of 68 companies was 4.52, while 26 companies were above the average; the median volatility of companies was 3.62, 11 companies were above the median in the second round, 5 companies were above the median in the third round, 4 companies were above the median in the fourth round, 2 companies were above the median in the fifth round, and one company was above the median in the sixth round.

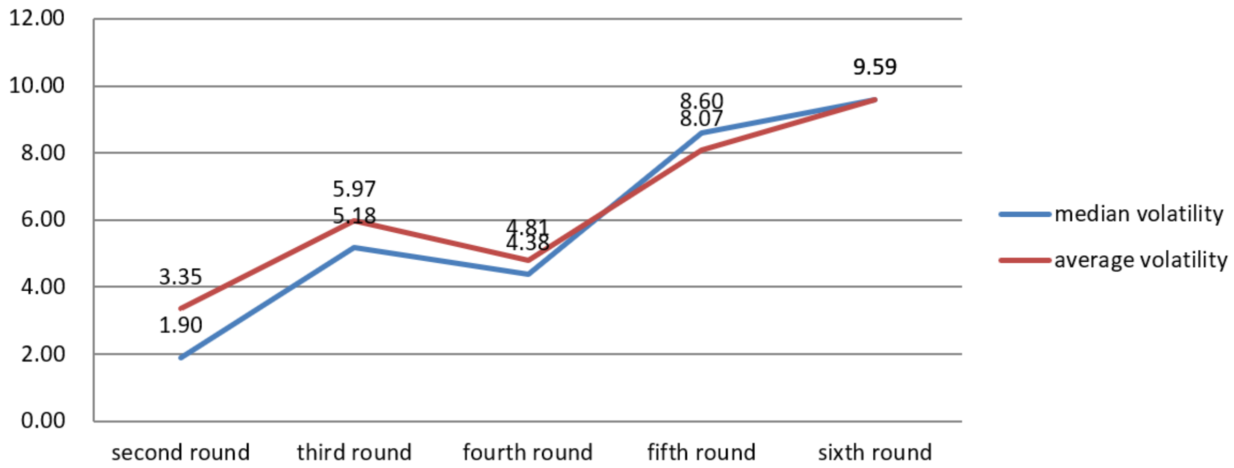

Figure 4. Volatility Performance of Each Round

From Figure 4, it can be seen that the trend of volatility changes in each round is generally consistent with the underpricing rate. Volatility shows an overall upward trend as the number of inquiry rounds increases. Since volatility is closely related to the riskiness of the company, we can analyze that volatility increases with the number of rounds. Therefore, we can analyze that as the number of rounds of inquiries increases, the performance of companies slowly increases while the riskiness also gradually increases. Investors should also pay attention to the riskiness of the corresponding companies when selecting investment targets.

6. Conclusion

This paper finds that IPO inquiries have a significant impact on firms. IPO is an important step for firms to enter the capital market, and the listing system in the Chinese capital market contains more regulatory factors than the highly market-oriented IPO process in foreign countries. Regulatory review has always been a special part of the Chinese listing system, whether under the approval system or under the existing registration system. This special institutional arrangement stems from the special development history of China's capital market, and exploring the impact of regulatory review in the listing system becomes an important entry point to promote the development of China's capital market. This can be derived from the following aspects of this paper as possible conclusions.

First, by studying the distribution of IPO inquiry rounds, we find that there is a linear relationship between the number of IPO inquiry rounds and the probability of going public. Secondly, by studying the focus areas of IPO inquiries, we find that there are areas that the inquired companies can focus on for improvement. Thirdly, we find that the number of rounds of IPO inquiries is positively related to the price underpricing and volatility by comparing the underpricing and volatility of the inquired and uninquired companies.

Regardless of the changes in China's stock issuance system, which has undergone successive changes from approval system, approval system to registration system, IPO inquiry has always been the core factor affecting the efficiency of stock pricing. Therefore, how to improve the accuracy and effectiveness of information disclosure in the IPO inquiry process and how the questioned companies should respond has become an important capital market topic of concern for regulators and academics.

Through the study, this paper has the following two suggestions. First, for enterprises, maintaining a relatively stable financial position with long-term profitability is the basis for going public. In addition, it is important to improve the quality and efficiency of information disclosure, pay attention to the consequences of IPO inquiries, and minimize the negative impact of IPO inquiries on enterprises. Secondly, the regulatory authorities need to improve the monitoring of the quality of information disclosure of listed companies on the premise of having laws to follow, so that the laws can be implemented and enforced and the effectiveness of information disclosure in China's stock market can be improved, and the information of companies' responses to audit opinions can be disclosed to investors in a comprehensive and detailed manner as far as possible, so as to further improve the level of information disclosure in the IPO process in China's capital market. Enhance the governance role of IPO inquiries in the allocation of capital market resources. Thirdly, investors can focus on the number of rounds of inquiries and questions asked, understand the status of enterprises before investing, reduce the negative impact of information asymmetry, choose investment enterprises prudently and rationally, and reduce investment risks.

References

[1] Hu Jian. A Study of IPO Market Effectiveness in China - Based on Improved EIMH Theory [D]. Lanzhou University: 2022.

[2] Guo Wenxu. The Legal Construction of China's IPO Registration System - A Look at the U.S. IPO Registration System [J]. Beijing College of Politics and Law JOURNAL: 2020. (No.110): 85 - 87.

[3] The Development and Advantages of IPO [J]. International Financing: 2014, 17 - 20.

[4] Susan Pulliam, Randall Smith.Linux Is at the Center of IPO inquiry in U.S.---Regulators Examine Dealers' Allocation Methods---Wall Street Firms Are Asked for Details on Transactions of Past Two Years. Asian Wall Street Joumal [J]. Victoria, Hong Kong: 2000.

[5] Lu Guihua, Han Huiyun, Chen Yunsen. Non-Punitive Regulation of Accounting Firms and IPO Audit Inquiries - Evidence Based on the Registration System of the Science and Technology Board [J]. Auditing Research: 2022. 43 - 45.

[6] Labate John. Wall Street IPO inquiry widens NEWS DIGEST: [London edition] [J]. Financial Times: 2000.

[7] Liu Yuhan . A Study on the Reasonableness of IPO Pricing and the Causes of High Returns of Science and Technology Board [D]. Chongqing Technology and Business University: 2022. 1 - 2.

[8] Wu Yewei, Zhang Bofu. Can securities supervision reduce corporate tax avoidance? [J]. PLoS One: 2022.

[9] Pan Deng. Research on China's IPO registration system reform [D]. Tianjin University of Commerce: 2016.19 - 24.

[10] Xue Shuang, Wang Yu. Sci-Tech innovation board IPO Review Inquiry Response Letter and First Issue Price Suppression [J]. Management World, 2022. 186 - 187.