The stock market reaction to equity and debt financing announcements on the

Shanghai and Shenzhen A Stock Exchanges

By

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Abstract

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The purpose of this study was to analyze the stock market reaction of financing announcements on the share price of listed companies. Since equity and debt financing have become a useful tool for listed companies in China to refinance, this event study analyzes samples from the Shanghai and Shenzhen Stock markets. This paper performs an empirical study on the listed companies that issued new shares to eliminate the effect if any of their short-term price performance. It also shows a significantly positive announcement effect, from a week before the announcement time. The stock market price of cumulative average excess yield is 0.720%, while the day before the announcement to the day's cumulative the average excess return is 1.766%. Practical implications of the findings and directions for future research are discussed.

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Chapter 1 Introduction

The refinancing of listed companies through the securities market involves the offering of stocks and bonds by means of an IPO. In China, the option of refinancing of listed companies mainly consists of four kinds:

(1) rights offerings

(2) public issuance of new shares

(3) issuance of convertible bonds

(4) private placements.

Refinancing has been a relatively new phenomenon. 1993 saw the Bao'an issue of convertible bonds, and Angang Steel Company Limited in 2006 made the first private placement. However, by June 2008, listed companies have raised over 5000 billion RMB to become an important source of new funds for listed companies. As of June 2008, a total of 259 listed companies in Shanghai and Shenzhen were approved to raise equity financing by the China Securities Regulatory Commission for a total of 425.534 billion Yuan.

In order to determine how the stock market reacts to debt financing arrangements in China, we need to measure the impact of debt financing events on the stock price and the firms' valuation. By taking a sample of Chinese listed companies that listed bonds we can determine whether this led to abnormal returns.

In general, there are two ways for a listed company to raise capital for the public through the issue of new shares: offer stock to existing shareholders, (right offerings), and sell their shares to all public investors, that is, seasoned equity offerings, referred to as SEO. From the experience of the national securities market, general issuance of

equity is the main step for listed companies. For the rights offerings, they have a small proportion of equity financing and they are usually used when companies have difficulty in obtaining financing from capital markets. They have no choice but to use rights offerings to the old shareholders who offered their support. Right offerings can easily lead to an adverse reaction by shareholders, and it can lead large fluctuations in the stock price on the secondary market. As a result fewer listed companies will use right offerings.

However, in the past, rights offerings have been the only option of equity financing in China's A-share market. But from 1998, without the limitation of the size of the total share capital, a high issue price and large financing volume has attracted many listed companies, and a key question to pose is what will be the market reaction to be the equity financing? Will it for example, be seen as a misappropriation operation? Other questions follow to assess what factors affect the size of the market volatility? Is there any existence of an additional 'window of opportunity? These issues are the concern of foreign scholars. Since the 1980s, Western scholars have used a large number of empirical studies to confirm whether an issue is often a bad signal which will cause a negative reaction by the stock market. These empirical results confirm the Myers and Majluf (1984) pecking the order offering which is based on the asymmetric information theory.

However, China is really a special case. Since 1998, issues have gone through three stages: the initial issuance was mainly for the major reorganization of assets, and that needed to receive special approval, low-threshold issuance tendency; this

generally was received as 'good news' to the market. The expanding scope of the issuing company and the lower threshold, issuance behavior in the normal operation of the company was regarded as 'bad news', in the second half of 2001 to the first half of 2002. From the second half of 2002, with the high threshold issuance, there was a more positive response by the stock market.

But now the China Securities Regulatory Commission has issued a new approach to manage listed companies issuing new shares, in terms of specific provisions on the rights offering and issuance conditions. According to the new regulations, equity financing has become a important status for a listed company in refinancing operations. Compared with the right offerings, issuance has a relatively relaxed comparative advantage. It is quite flexible on net asset targets and funding scale is the main refinancing constraint. Thus, a large number of listed companies have announced equity financing plans.

And as a result of this innovative refinancing, more in-depth theoretical and empirical research is necessary, especially the theory to explore the additional impact on the company's stock price, and on the value of the company.

For this paper we use equity and debt financing announcements to test their impact on stock prices. Commencing with a theoretical model, the paper will also analyze whether the type of financing announcements might induce different stock market reactions.

Chapter 2 Literature review

The issuance of shares in China has a short history dating back to 1998. However, it has gradually become a refinancing tool which listed companies prefer to do, due to the large size of its financing and the high issue price.

As most studies on debt financing are mainly from developed countries, it is hard to estimate how stock markets react in China. For example, there are higher costs of debt in financing in developing countries than in developed ones, which could lead to a negative reaction of stock markets after debt financing announcements. The cost of debt reflects agency costs between shareholders and debtholders which may cause moral hazard to the shareholders. In developing countries, without a perfect institutional system in government to help the debtholders, the effect could be greater.

For China in particular, the economic recession that appeared in 2000, caused more people to be concerned about the Chinese stock market. In order to figure out how debt financing affects, the stock market, a review of the literature is needed to provide an idea about the debt financing effectiveness in stock markets.

The issuance of shares and convertible bonds, are used to do finance operations. If we can show whether the stock markets react differently to these financing instruments, this can help in improving the stock reaction of Chinese listed companies.

The mechanics of debt financing can be summarized as follows. Stock markets confer a higher value to bonds as they are less costly in terms of origination fees. Additionally, bonds firms may be interested in issuing bonds because the market can evaluate their quality more easily. Some empirical studies analyze the debt financing

announcement with the positive stock market reaction in an attempt to figure out the corresponding effect of bond issue announcements and find mixed results.

Altunbas et al. (2009) researched the characteristics that will affect a listing of a European listed firm whether they choose loans or go to the bond market. With higher loans than the bonds, they found that the firm is larger, more profitable, highly leveraged, but with fewer growth opportunities. There are also some other studies that compare the reactions of the stock market to the debt financing announcements of bond and loans.

Li (2001) selected 27 listed companies in Shanghai stock market in China, which have raised equity as a sample. They used the accumulated excess returns to measure with a market reaction, according to study window is {-20,20}. The research shows that during the announcement the average returns had zero volatility, and the negative excess returns for the announcement date was not so obvious. But from the cumulative excess returns, from -19 days which were negative from the announcement date, there was an obvious accelerating declining trend. As a result, the authors believe that the issuance of new shares for the current approach will cause a smaller degree of market acceptance, which should increase the need for supervision, give full play to the responsibilities of the SFC and other securities regulatory authorities to reduce investor concerns. But this study only calculated the sample average cumulative abnormal returns, and was not based on market conditions. Thereby it did not examine the existence of the problem of timing, and there was no market volatility calculation. Rather the authors focused on the negative cumulative

excess returns of the issuing company.

Wang et al (2003) using theoretical models through wealth redistribution, concluded that under the dual ownership structure of the existence of tradable shares and non-tradable shares, the issuance of new shares in favor of the old shareholders of the non-tradable shares is not conducive to the old shareholders. Between the three: the old shareholders of non-tradable shares, outstanding shares of old shareholders and new shareholders, there is a 'game'. Through statistical analysis, the author believes that the clearly bad news for the issuance of the announcement will affect the market reaction in 1999-2001. For the listed companies which issue on the market from 1999 to 2001 it was clear it was bad news.

Empirical tests show that the China's securities market has additional performance issues of listed companies in addition to the obvious fluctuations in the stock price effect. The listing on the day of the reaction is strongest, the volatility of the stock on the day of more than three days before and after The two-day stock price volatility, which is significantly stronger than the market response to the issuance of new shares listed in response to the announcement of additional.

Xiang and Guo (2008) compared the stock performance of listed companies which made issues. The conclusions were that after completion of the stock issuance, companies did not significantly improve their performance. Some declined in the implementation of equity financing, so the issuance of such refinancing did not improve the effectiveness and performance of listed companies. The view from the issuance of the impact on stock prices is that it is bad news for stock prices. Indeed,

prior to the issuance of the letter announcement, the abnormal return is significantly negative, indicating that the market reacts in advance to this bad news.

Darabi (2005) shows that in his study in Tehran that there is no correlation between the capital structure and company value, and other factors which are effective on the company value should be taken into consideration to increase this value.

Heshmati (2006) undertook research about the factors affecting the changes in earnings leverage of the companies. With the use of data for 164 companies which were listed on the Russian stock exchange from the year 2000 to 2004. The results of this study demonstrate that there is a correlation between profitability, financial deficit, stock yield and the ratio of stock value to book value of the company's assets, and the earnings leverage.

Hun et al (2002), by analyzing the issuance price and the market performance of listed companies in China in 1998-2001, concluded that the market trend, the issuance proportion of the number of total share capital and asset-liability ratio are the three main factors that affect stock price movements. Market trend and asset-liability ratio are positively related to stock prices, and the issuance number of proportion of the total share capital has a negative correlation with stock prices. The issuance number of accounting for the proportion of the outstanding shares shows that the listed company's cash reserves and the price-earnings ratio of stocks trend are not important factors.

Duan (2001) focused on the Shanghai A stock exchange with 47 listed companies

which issuance in 2001. Through this study, the author suggests that the market fluctuations of the additional events and subsequent stock prices saw a positive relationship, which may help in the ups and downs. But with the market fluctuations, there may be an inverse relationship, indicating that if the decision in the market is bad, there is also the chance to make issuance good news.

Market ups and downs on the degree of issuance in the announcement date and the listing date are different, according to a reasonable time of the band, there will be conducive to issuance to the good. But in studying the market reaction for each event, typically studies have only investigated the announcement date, issue date and the listing of the day to do stock price volatility. So there is no standard method to examine the cumulative stock price volatility in the event window, and thus it cannot fully reflect the event-day market reaction; but only investigated the correlation between market volatility and the company issuing the stock price volatility and other important factors research company additional market fluctuations.

Bevan & Danbolt (2002) try to replicate the findings of Rajan and Zingales (1998) on the capital structure of listed companies in England in their joint investigation. They reexamine the sensitivity of explanatory variables studied by Rajan and Zingales with different debt financing and its constituent components. The results support those reported by Rajan and Zingales.

Hadlock and James (2002) argue that the banking system can regularize the financing of the companies. They think that the selection of different kinds of financing capital or debt will be easily made to evaluate the stock market value of

companies.

McNulty et al. (2002) attempted to find out the significance of a proper assessment of capital cost. For example the company makes use of inaccurate rates to discount cash flows, it might reject a project by mistake or invest in a business which is not appropriate.

Mesquita and Lara (2003) examine the correlation between the capital structure and the companies' profitability in Brazil by using a multivariate regression model. The results illustrate that there is a direct relationship between profitability and short-term debts and owners' equity and also an inverse relationship with long-term debts.

Namazi and Shirzadeh (2005) undertook a research on the effect of capital structure on the profitability of the companies in different kinds of industries which were listed on the Tehran Stock Exchange. The sample consisted of 108 companies from different kinds of industries. The data are related to the average leverage factor and owners' equity within a five-year period, and they were collected and tested annually. The data on the average leverage factor and return on assets within the same five-year period were also collected and tested. In order to test the hypotheses, a simple regression model are used first. The results show that there was a positive but statistically weak relationship between the capital structure and the company's profitability. Furthermore, the relationship between the capital structure and profitability was also dependent on the industry and their capital structure.

Mileva (2007) focused his research on the factors that affect capital structure and

especially debt levels. This study was conducted using stock exchange data during the period 2000-2005, try to make use of the data which is related to the financial statements. Within this calculation, there is no correlation between the development opportunities and short-term debts, but it is correlated with long-term debts. A correlation exists also between short-term debts and the company's size, but there is no correlation between long-term debt and the company's size.

Chen et al (2003) use the data of the private placement of shares of Wuhan Iron and Steel shares to show the advantage of equity financing. It indicated that equity financing can used to boost the role of mergers and acquisitions and corporate governance activities. Wang (2004) tests on the group company listed in China as a whole mode to study the motivation and impact of the Group's overall listing, and according to the mode of development, showing a comprehensive strategy for companies listed on the stock market.

Huang and Yun (2008) performed an analysis on the cases of Angang, a listed stock, with the aspect of an Angang issuance of shares in terms of the acquisition of the asset price. The objective was to find out the effect of interests of investors, and also using the accounting method to find out the change in Angang by analysis in viewing private placement of financial indicators and the impact on the company's financial risk. Liu (2005) based on the some assumptions, discusses the impact of the issuance of share behavior of non-tradable shares, tradable shares and other relevant stakeholders wealth, to determine if a public issuance will result in damage to the interests of tradable shareholders.

Chapter 3 Methodology

Economists are often required to measure the impact of the enterprise value in respect the impact of a class of economic events. While at first glance, this may seem very difficult, event analysis (Event Study) can easily determine and measure the results of an event. It is a common type of testing semi-strong market efficiency. If a capital market is to reach semi-strongly-efficiency, public disclosure of information (the incident), the cumulative abnormal returns do not change. In a semi-strong type with efficient market, the share price will change to reflect the expected stock returns. If the information is perceived to be good news, the stock abnormal returns will be positive, otherwise they will be negative. This is because in an efficient capital market, once the information is disclosed or announced it will be immediately digested and absorbed by the market and reflected in the price.

Event study's universal applicability has led to a wide range of uses. In the theory of accounting and financial analysis, the event analysis method has been applied to business-related events and the economic analysis of them. These include company mergers and acquisitions, earnings releases, issue bonds or stocks, the financial statements of public defense, and asset restructuring, insider trading, macroeconomic variables (such as the trade deficit) of the change. Event study methodology has also been extended to legal and other economic sectors, in order to examine the enterprise value. In a number of other applied research topics, event analysis has focused mainly on the events of the enterprise specific securities especially stock prices.

Event analysis can be divided into seven general steps:

1. Definition of the event

The first step is to determine the events of interest, and then the effect of the 'incident' on the prices of the securities. In the first place one has to establish an event. For example, in order to understand the impact of earnings announcement on stock prices, earnings releases can be seen as an event. The event date can be selected as an event announcement. In the actual analysis, the event is often extended to two days – the announcement and its publication, so you can more fully grasp the impact of earnings announcement on stock prices.

So, $t = 0$ represents the event date. $t = T_1 - 1$ to $t = T_2$ represents an event window, $t = T_0 + 1$ to $t = T_1$. $T_2 - T_1$ represent: The event window length can be broadened if we wish to consider the impact of the event on future earnings.

It is important to note when using the extended event window, the greater the event window, this permits one to capture the full impact of the event on the stock price. However, the factor, can have an impact on the price of the shares. We can also use the date before or after the publication date as the event window. For instance, in order to ascertain the impact of insider information on stock prices in issuing new shares, as well as after the issuance of the impact on shareholder wealth, then you need to analyze those event windows before and after the event changes the stock prices.

2. Selection Criteria

We need to develop certain principles to determine on which company we should perform the event study. This can be achieved by the availability of data samples.

Restrictions can be applied to select only the Shanghai Stock Exchange or the Shenzhen Stock Exchange listed companies as samples, or restrictions by industry. The challenge here is to avoid the potential sample selection bias.

3. Abnormal returns and abnormal returns

To evaluate the impact of the 'incident', we need to measure the abnormal returns. Assuming no event or this event did not happen, then the revenue that occurs can be referred to as normal income. But with the 'incident' occurring such an announcement of information that the income is made up of normal earning plus or minus, the abnormal return from the event window..

For each firm i and period t, $AR_{it} = R_{it} - E(R_{it} \mid X_t)$. Where AR_{it}, R_{it}, $E(R_{it})$ were abnormal time point t yields, real yields and the normal rate of return. X_t is a condition known collection of information.

4. Model parameter estimation

Once you determine the normal revenue model, we must take advantage of a string of data (called the estimation window of data) to estimate the parameters of the model. Typically, the estimation window is a selected interval of time before the event window. For example, select the 200 days before the event as the estimation window. Event windows are generally not included in the estimation window in order to avoid the impact of events on the estimated parameters.

5. Significant test abnormal returns

Once the model parameter estimation has been completed, you can calculate the abnormal returns. In order to test whether the event, we need to determine the null hypothesis and to determine cumulative abnormal returns.

6. Analysis of the results

We need to analyze the results and provide a diagnosis. Sometimes, especially if a limited sample is being used, the results may be affected by the size of companies. So we should be aware of that situation .

7. Interpretations and conclusions

In the ideal case, the empirical results will help us improve our understanding of the impact of various 'incidents' on the price of securities.

The choice of empirical models assumes that the proceeds of any securities market and the market portfolio income have a stable linear relationship. For any security i, we have:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots 3.1$$

$$E(\varepsilon_{it}) = 0; \quad Var(\varepsilon_{it}) = \sigma_{\varepsilon_t}^2$$

$$AR_{it} = R_{it} - (\alpha_i - \beta_i R_{mt}) \quad \dots\dots\dots\dots\dots\dots\dots\dots\dots 3.2$$

Where in: R_{it}: t period securities yield i

R_{mt}: times t the market portfolio yields

AR_{it}: Event window one day, i's abnormal returns

In practice, the market portfolio incomes are generally chosen to be represented by a composite index income, such as the more popular internationally as the S & P500 index, CRSP (Center for Research in Security Prices) equal-weighted index and the CRSP weight index.

The mean adjusted model assumes an average yield of securities within a period of time is a constant, for any security i are:

$$R_{it} = \mu_{it} + \delta_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots 3.3$$

$$E(\delta_{it}) = 0; \quad Var(\delta_{it}) = \sigma^2_{\delta_t}$$

$$AR_{it} = R_{it} - \mu_i \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.3.4$$

When using daily data, the model is typically used for nominal income. When using monthly data, the model can be used for the actual income or residual income.

The market index adjustment model (Market Adjusted Model) is the actual rate of return and the market yield abnormal returns as the difference to do estimation:

$$AR_{it} = R_{it} - R_{mt} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.3.5$$

Of all three models, the Market Model is the most widely for event studies.

The Market Model represents the mean adjusted for potential improvement model. By eliminating changes in market yield rate of return, the variance of non-normal yields will decrease, which will help to strengthen the influence of the event detection capability.

$$\sigma^2_{\delta_t} = Var(R_{it} - \mu_i) = Var(R_{it}) \ldots\ldots\ldots\ldots\ldots.3.6$$

So the market model abnormal return is less than the variance of the mean adjusted model.

The market index adjustment model is mainly used in situations when it is not able to use (before the incident) parameter estimation conditions, such as the initial public offering of securities of at a discount. This model can be seen as a = 0, B = 1 in the case of a restricted market model. Since the coefficients of the model have been specified in advance, you do not need to estimate the parameters estimation period. In general, this model would be used only under compelling circumstances, because if the restriction is incorrect, then the model will produce large deviations.

The Capital Asset Pricing Model (CAPM) and the Arbitrage Pricing Model (APT) have also been used in event studies. CAPM in the 1970s was widely used at that time, but in the following decade due to the discovery of model bias, doubts over its use arose. Arbitrage pricing theory has also been used to calculate multivariable normal returns and some empirical results have confirmed that it is suitable for calculating the cross-section of average earnings. So the proper use of APT may eliminate the not appropriate restrictions in average revenue. On the other hand the use of APT makes the event even more complicated, with unrestricted market model comparison. As a result, its advantage is not obvious.

The Market Model is a single-factor model example. In a multi-factor model to estimate normal revenue, the industry index can be included. Sharpe and Sharpe (1970) and Sharpe and Bailey (1995) in the industry are discussed based on the classification of multi-factor index model. Another variable factor model is to use the size of the company's actual earnings and investment portfolio to calculate the difference between the abnormal returns, while the size of the company is based on the substance of capital calculation. However, in practice event studies using multi-factor model have a very limited advantage. Because in addition to market factors, additional factors cannot effectively reduce the variance of abnormal returns. Only when companies in a same industry or the same size of the portfolio are studied will a multi-factor model's abnormal return have a greater degree of variance reduction.

The Dyckman et al (1984) model illustrated several ways to estimate the

abnormal returns. Chandra and Wi (1990) made a further detailed comparison of the Market Model with the APT Model to estimate abnormal returns method and found the former a better estimator. Korea's most representative research results published in 1985 by Brown and Warner used simulation to examine the daily returns and abnormal returns of non-currency states. They used the least squares method to estimate the deviation of the Market Model parameters, as well as abnormal returns in the event window autocorrelation phenomena or abnormal returns increase the variance of how to estimate their Variance '1'. The results show that the estimated market model based on OLS worked well. Income data with non-Eigen states of the event study method are not much affected.

Despite the abnormal returns also in this case, there is increasing evidence that the average abnormal returns tend to be normally distributed. And for the average abnormal returns, the significant parameters of the standard test requirements have been sufficiently detailed.

Chen et al. (2002) used an analog sampling method, for China's securities market transactions and compared the Market Model, the mean adjusted model and market adjustment models. The findings show that the Market Model and the Market Adjustment Model have better applicability. Taking into account the Market Model abnormal returns relative to other metrics advantages of model, we use the Market Model to estimate abnormal returns sample stocks.

In this paper, from August 2001 to January 2013 we use the Shanghai Stock Exchange and Shenzhen Stock Exchange issued A shares of listed companies as the

research object, right before the announcement to the issuance of additional shares and after the IPO transaction. According to the Efficient Markets Hypothesis, the stock price volatility is the price for the information and its speed of distribution. So listed companies announce this important information before issuing new shares and as a result there will be an impact on stock price volatility. Since many factors affect the stock price, to effectively eliminate the interference of additional information on the stock price, in sampling some of the following factors need to be taken into account:

(1) First, the sample interval from August 2001 to December 2003, is based on the investigation of new 'notice' issues after a year, issuance of new shares, the listing the date of announcement and the stock price effect.

(2) Secondly, this study requires a sample companies that meet the complete announcement and listing information.

(3) it has to be recognized that regulations and other changes may have a more significant impact on the stock market than just the firm announcement of a share issuance.

(4) Try to remove the impact of overall stock market average magnitude change. As the company's announcement of material information affecting the company's share price is significant, so the only choice is for the company which during the study has no significant information. Since the Public Annual Report (or mid-year report) the information disclosed a significant effect on the company's share price, so we can choose only announced issuance of new shares information with the published

annual report (or mid-year report) time difference in companies with more than 15 trading days.

(5) Remove from the sample of the Market Model where the market index return is not significant. Specifically where the R^2 is less than 0.10.

(6) The studied sample companies of total 51, 23 from Shanghai, Shenzhen has 28.

Data for this study come from the following sources:

The data announcements and listing purposes, for the sample come from annual reports and stock data are derived from the Shenzhen Stock Exchange website and the Information Network (www.cninfo.eom.cn) as well as the previous CSMAR transactional database for December 2001, and for 2002 to 2013, from the Securities Star website (www.stockstar.com) of the stock market databases.

There are n kinds of stock, and the average abnormal return is defined as AAR:

$$\text{AAR}_i = \sum_{i=1}^{n} \frac{AR_{it}}{n} \quad \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots 3.7$$

From the time $T_1 + 1$ to T, the cumulative abnormal return rate is:

$$\text{CAR}_{it} = \sum_{t=T_1+1}^{T} AR_{it} \quad \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots 3.8$$

From the time $T_1 + 1$ to T, the cumulative average abnormal return rate is:

$$\text{CAR}_i = \sum_{i=T_1+1}^{T} \text{AAR}_i \quad \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots 3.9$$

Statistical tests on the average abnormal returns

$$H_0 : AAR_i = 0 ; \quad H_1 : AAR_i \neq 0$$

$$T_{AAR} = \frac{AAR_i}{S(AAR_i)/\sqrt{n}} \quad \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots 3.10$$

Statistical tests on the cumulative average abnormal returns

$$H_0: CAR_i = 0 \; ; \quad H_1: CAR_i \neq 0$$

$$T_{CAR} = \frac{CAR_i}{S(CAR_i)/\sqrt{n}} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots 3.11$$

As mentioned in the previous chapter, we use the event study methodology to examine the price and reactions on listed company who are issuing new shares. Abnormal returns in the event window represent the events on the enterprise value of the stock or the degree of influence. In the choice of the estimation window and the event window when there is no overlap between the two, it is best to avoid being associated with the event parameter estimates of income effects, thereby either normal or abnormal income gains will be reflected in the impact of events, then the event study methodology will be a problem. Therefore, this Market Model parameter estimation window is to take (20,-11), prior to the announcement in parentheses and then on additional 20 before to 11 after days, giving a total of 31 transactions days (see Wang et al (2003)). This is to attempt to fully capture the additional impact of events on the stock price.

There are two event days in this study: the announcement date of issuance and the issuance date of the share. The announcement dates of issuance in each sample between the listing of days are not the same. Most of the samples in the two day's trading day are 10 days or so, so the issuance announcement date for the event is 0. One of the event windows is (-20,10) with the listing date for the event day is 0 , the event window is (-10,20).

Chapter 4 Results

This paper gives the entire event window AAR curve (see Figure 4.1). It can be seen that before the announcement of the event on the 7th and 6th day, the AAR is positive and large, after a slight fall, but before the first three and two days, it is still positive. This shows that before the announcement, there is already some news about the issue. The AAR curve on the announcement day reaches its highest point, and on the first day thereafter it still maintain a high level, which means that day and the day after the announcement the market reaction is obvious. After that the AAR quickly drops and with even a brief negative effect. This indicates that the stock market has fully absorbed the information and rebounded.

Figure 4.1
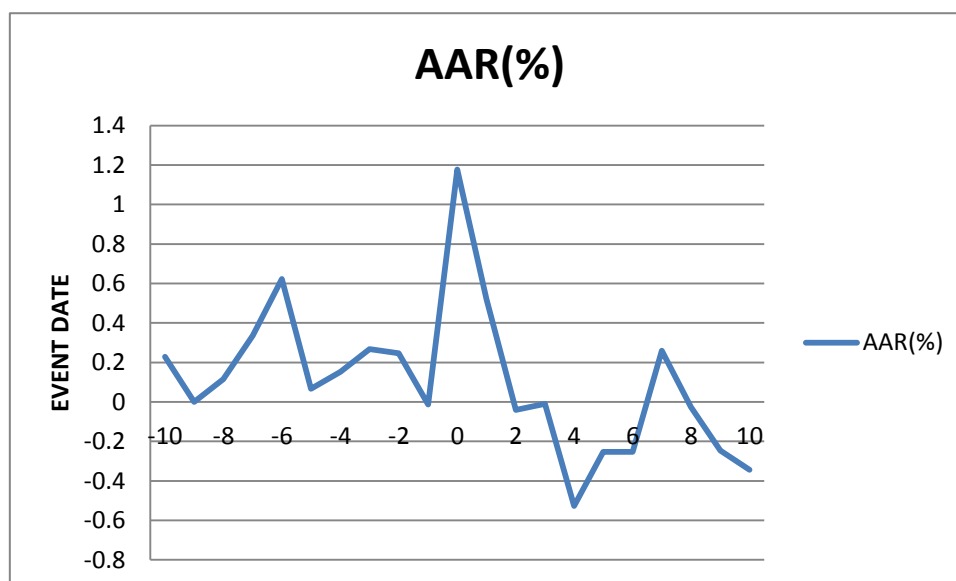
For AAR analysis of the basic statistical tests results(see Appendix A), in t = -7 and t = -6 two days, the positive effects were between 5% and 1% significance levels prior to the announcement, which confirmed the existence of a certain degree of information leakage. But the market reaction is still the most intense at t = 0 and this

day, the growth effect was 1.178%, at the 1% significance level. This effect continues at time t = 1, and it is positive and significant. It may be because only a small number of persons obtain the information in advance. However, for the rest of the days, it remained negative, where t = 4 and t = 10 those two days are negative significantly, reflecting investors are making correct choices after digesting the released information.

Throughout the event window, issuing shares can obtain a sustained positive cumulative abnormal return, and in the event announcement and the subsequent four days, the reaction would be more intense, followed by a slow decline in CAR. Volatility decreases, but remains positive. A long period of time before the announcement the cumulative abnormal returns are positive. This may be because the information disclosed in advance leaks out to the market. For announcements on the day and a few days later, the cumulative abnormal returns increased significantly, indicating that the market for the information disclosed in the announcement is 'good'. For about a week after the anouncement, the cumulative excess return has a smaller drop. This may indicate that the market has adjusted to the previous overreaction.

The CAR analysis of the basic statistical test showed the data from t=-6, the cumulative excess returns at the 1% level are significantly positive. This indicates that listed private placement announcements have a significant and positive effect, with the majority of non-public offering announcement effects consistent with conclusions of this study. Meanwhile, the window period [-6; -1] within the average excess return is remarkable, but the event announcement day and the next day for two consecutive

days average excess return is significantly positive; and in [1; 3] the high level is maintained. Figure 4.2 capture the AAR's and ACAR's.

Figure 4.2
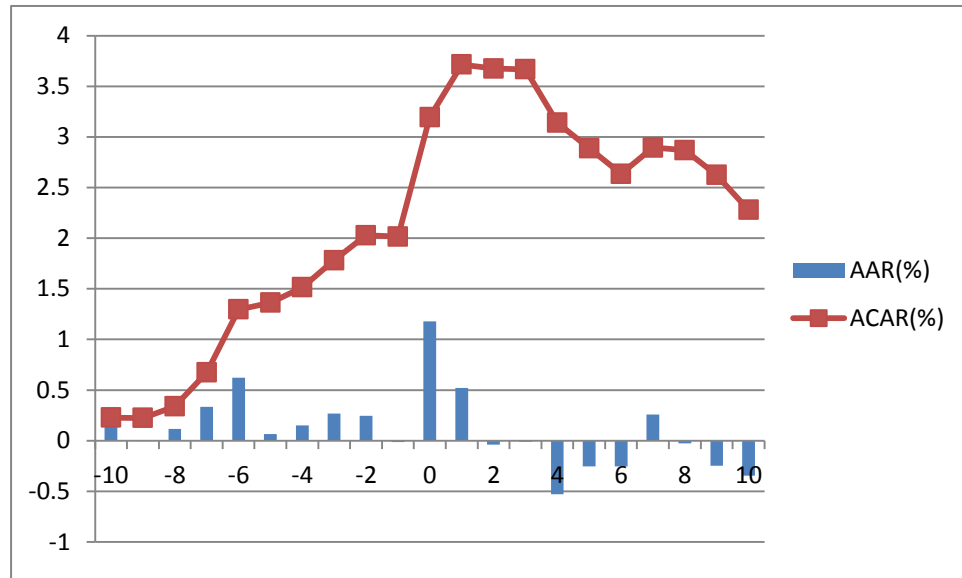
This shows that the China's stock market have some information leakage phenomenon, but days after the incident, the market's reaction was the most obvious. This explains the extent of information leakage is not serious and may be explained by the fact that investors are informed in advance of plans for an announcement. In about a week after the announcement, the average cumulative rate of return has dropped slightly, reflecting the market's rational adjustment.

In order to more accurately examine the announcement period market reaction, we calculated before and after the five days of the event announcement cumulative average excess return. The results showed that before the announcement of the event, the cumulative average excess return is significantly positive, and the event announcement on the first day after the cumulative average abnormal returns are not significant. With a window period of [-5; -1] and [-1; 0], the cumulative average

excess returns were 0.720% and 1.766%, respectively both at the 1% significance level, that verifying that the aforementioned results.

Chapter 5 Conclusions

This paper chose A-share listed companies from May 1, 2007 to April 15, 2011 which made new share announcements as the research sample. This was to undertake an empirical study on China's stock price reaction of listed companies to new share announcements. It was found that the presence of private placement announcements of listed companies have a significantly positive effect.

In about a week before the announcement date, the accumulated average excess yield is 0.720 percent, while the day before the announcement, the cumulative average excess returns are 1.766%. From the event window (cumulative) abnormal returns are significantly different from zero so we can conclude that the market for private placement information is responsive. The selected sample of listed companies' private placement program is recognized by the market, and allows investors to obtain a short-term effect. Therefore, the listed company's share price reaction caused by placement effects is positive.

The results for the effect of the private placement of shares, especially in 2007 after the introduction of new regulatory policies for the private placement market reaction provides new empirical evidence. Of course, this may be related to the specific Chinese institutional environment. From the share reform of macro-level impact, mainly because the private placements are taken up by institutional investors, and the state regulations issued shares within 12 months (major shareholders to subscribe for 36 months) may not be transferred. This directly reduces the pressure of expansion in the short-term and it will not have a significant impact on the financial side, so the placement of the company's share price was not affected. However, on the

contrary, rational investors think this is good news. They may think that this indicates promising performance of listed companies and institutions will buy the company issuing stocks this producing a good market response. From the placement of stakeholders view, the implementation of the private placement is conducive to controlling shareholders and minority shareholders to maximize the benefits.

From the above it can be seen, for small and medium investors, private placement investment has the following characteristics. Issuing shares to a group of companies, the overall market effect is expected on that group companies. Third, where there is cash subscription of major shareholders of listed companies, this shows a level of confidence to the market. Fourth that the funds raised are for the investment in projects. Fifth, that where the current market price has fallen below the issuing price, it will be caught by the fund's largest holding.

We analyzed the private placement announcement effect to attempt to verify the different theories proposed in the literature whether it can effectively explain the Chinese market placement behavior and results. We try to explore this using different types of statistical analysis and research. For example, in the situation under the private placement the market price effect is different. The price of the participating samples will also have different effects, which will also have an effect on the market price.

Chapter 6 Recommendations

Overall, from the study sample, the data of listed companies issuing new shares and the date of announcements have a statistically significant positive effect on stock price. This is broadly in line with domestic and foreign scholars empirical results. This once again is suggestive that the domestic capital market has not yet reached semi-strong efficiency.

The listing date benefits more on the positive average abnormal return than the date of announcement. But the two days overall sample's average abnormal returns are not statistically significant. In addition for the notice period (1, 5), the price effect is also very obvious, which means the additional information on the stock market reaction is mainly concentrated in the announcement date and subsequent five days. For the listing period (-5, 20), against for the date of listing, the abnormal returns are not statistically significant. The cumulative abnormal returns in the issuance announcement reveal a downward trend, but in the 20th day it reverses. This means that the impact of issuance of new shares on the stock market will continue until about a month. Abnormal returns of the study sample at both issuance and announcement dates have positive trends.

If the study sample was divided into Shanghai and Shenzhen, the two abnormal returns will have high correlations. Based on the view of stock price reaction of announcements of issuing shares, before the announcement period, the Shanghai stock market was significant. But in the late period, Shenzhen is quite remarkable. Which means before the announcement of the issuance, the Shanghai stock market has an early stock price reaction, while the Shenzhen stock price reaction will concentrate

after the announcement. Moreover, Shanghai has an overdue stronger stock market

reaction than Shenzhen.

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Appendix A:

company name	company code	announcement date	issue date	issue price	issuing number (10,000)	volume before	volume after
兰卅铝业	600296	2009/12/30	2010/1/16	8.48	12217	11000	29500
紫江企业	600210	2009/12/5	2009/12/26	9.45	9500	17135	54640
厦门建发	600153	2009/9/3	2009/9/23	8.93	9000	8000	29600
天坛生物	600161	2009/8/15	2009/9/5	11.2	2500	4800	19200
福耀玻璃	600660	2009/8/1	2009/8/21	12	4835	14449	45239
民丰特纸	600235	2009/6/19	2009/7/9	16	1560	8840	26340
新湖实业	600777	2009/6/5	2009/6/25	8.37	6000	9754	20487
鲁抗医药	600789	2009/5/23	2009/6/10	7.66	4700	15802	36475
浦发银行	600000	2008/12/30	2009/1/20	8.45	30000	60000	361500
罗顿发展	600209	2008/12/31	2009/1/20	6.7	2250	7500	23574
北人股份	600860	2008/12/26	2009/1/16	7	2200	5000	40000
通宝能源	600780	2008/11/16	2008/12/3	7	7529	9357	21569
耀华玻璃	600716	2008/8/29	2008/9/19	7.3	2430	8100	32400
伊利股份	600887	2008/8/17	2008/9/10	16.85	4896	7989	14667
明天科技	600091	2008/5/28	2008/6/17	8.82	11000	9620	22653
友谊股份	600827	2008/5/8	2008/5/27	14.5	3700	14064	24429
金丰投资	600606	2008/4/2	2008/4/23	11.55	5720	4171	16479
申能股份	600642	2008/1/30	2008/3/5	10.5	16000	25099	163309
中远发展	600641	2008/1/25	2008/3/1	8.87	8000	9907	36787

大众交通	600611	2007/12/18	2007/12/28	6.8	3285	31227	56585
北亚集团	600705	2007/11/22	2007/12/21	6	15000	20892	50314
全兴股份	600779	2007/8/23	2007/10/10	11.06	4026	13366	40753
春兰股份	600854	2007/7/24	2007/8/17	19	6000	7979	30631
中集集团	000039	2009/11/14	2009/12/5	15	12000	28259	51030
宏源证券	000562	2009/9/17	2009/10/13	7	9000	15246	51875
华立控股	000607	2009/7/25	2009/8/14	11.43	3275	5625	19098
九芝堂	000989	2009/7/17	2009/8/8	10	5100	5200	16721
华联控股	000036	2009/6/30	2009/7/21	6.08	9000	17717	35956
海虫T控股	000503	2009/3/14	2009/4/3	3.63	3222	11866	34229
韶钢松山	000717	2009/1/20	2009/2/17	7.17	11160	13520	44720
华光陶瓷	000655	2008/11/27	2009/12/17	9.1	1724	4031	14479
华东科技	000727	2008/11/27	2009/12/16	6	4542	15122	31374
盐湖钾肥	000792	2008/10/24	2009/11/13	12.2	3500	6494	22085
唐钢股份	000709	2008/10/15	2009/10/31	6.06	15000	28540	135383
深囊达A	000032	2008/10/10	2008/10/31	13.98	1846	3625	13081
模塑科技	000700	2008/9/12	2008/10/11	13.6	3000	3853	12452
金融街	000402	2008/7/31	2008/8/21	19.58	2145	4800	12591
东方热电	000958	2008/5/15	2008/6/12	11.6	4915	4500	18000
刨智科技	000787	2008/5/13	2008/6/4	9.4	5106	9100	19970
甬成功	000517	2008/4/30	2008/5/23	17.26	2895	2780	8990
中信国安	000839	2008/4/19	2008/5/20	13.1	7000	17816	59000
双汇发展	000895	2008/3/27	2008/4/16	12	5000	8450	29237
湘计算	000748	2008/3/22	2008/4/11	9.5	5000	8982	22637

机							
云铝股份	000807	2008/3/20	2008/4/2	10.1	5400	7992	31000
海螺型材	000619	2008/3/13	2008/3/27	21.5	3000	5100	15000
华菱管线	000932	2008/3/5	2008/3/22	5.58	20000	25000	156538
银河科技	000806	2008/2/27	2008/2/7	11.7	5000	8784	21158
罗牛山	000735	2008/1/10	2008/1/28	4.99	10000	22542	48725
京山轻机	000821	2008/1/14	2008/1/28	5.6	3642	12125	30882
天大天财	000836	2007/8/24	2007/9/26	21.3	2200	3900	10275
新华制药	000736	2007/8/24	2007/9/19	13	3300	19315	42731

event windows	AAR(%)	T(AAR)	P(AAR)	ACAR(%)	T(ACAR)	P(ACAR)
-10	0.228	1.409	0.16	0.228	1.409	0.16
-9	-0.0004	-0.029	0.977	0.224	0.991	0.322
-8	0.115	0.838	0.403	0.339	1.22	0.224
-7	0.335	2.135	0.034	0.674	2.118	0.035
-6	0.622	3.58	0..654	1.296	3.462	0.001
-5	0.067	0.449	0.324	1.362	3.323	0.001
-4	0.152	0.989	0.06	1.514	3.326	0.001
-3	0.267	1.885	0.126	1.781	3.644	0.000
-2	0.247	1.535	0.925	2.028	3.764	0.000
-1	-0.013	-0.094	0	2.016	3.637	0.000
0	1.178	3.681	0	3.194	5.795	0.000
1	0.522	2.037	0.043	3.715	5.814	0.000
2	-0.04	-0.193	0.847	3.676	5.2174	0.000
3	-0.009	-0.052	0.959	3.667	4.8264	0.000
4	-0.527	-2.628	0.009	3.139	3.849	0.000
5	-0.252	-1.439	0.151	2.888	3.365	0.001
6	-0.253	-1.667	0.097	2.635	3.032	0.003
7	0.26	1.605	0.11	2.894	3.214	0.001
8	-0.025	-0.16	0.873	2.869	3.102	0.002
9	-0.246	-1.54	0.125	2.624	2.78	0.006
10	-0.344	-2.069	0.039	2.28	2.381	0.018

event windows	ACAR(%)	T(ACAR)	P(ACAR)
[-5,-1]	0.720	4.303	0.000
[-4,-1]	0.653	4.063	0.000
[-3,-1]	0.502	3.196	0.001
[-2,-1]	0.234	1.523	0.128
[-1,0]	1.166	4.927	0.000
[1,2]	0.482	1.877	0.061
[1,3]	0.473	1.887	0.059
[1,4]	-0.054	-0.215	0.829
[1,5]	-0.306	-1.235	0.217