

A Summary of Literature: Convertible Bond Issue Announcement Effect

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Abstract

Convertible bond, whose holder has the right to convert it into shares in accordance with the agreed terms of the bond within a certain period, combines the common features of the bond and stock. Announcement effect of the securities, also known as wealth effect of the shareholder, is to investigate the influence of the major issuers on the company's stock price. Because the nature of financial instruments is different, there are differences in issued announcement effect. Scholars' study of the convertible bond from various countries also involves many aspects. The article gives the literature review on the issue of announcement effect and its influencing factors of target stocks. On the basis of summarizing the conclusions, this article also points out the studies' shortcomings and deficiencies. We hope to be able to provide some inspiration for the development of the convertible bond market.

Keywords

Convertible Bonds, Announcement Effect, Abnormal Returns, Literature Summary

1. Introduction

Convertible bond is a special bond and a way of financing that owns both the qualities of bonds and stocks. Convertible bond is a financial derivative which develops on the basis of normal company bond and differs in that convertible bond holders choose to convert their bonds into stocks of targeted company at a specific time and an agreed price [1]. It is the right of choice that enables convertible bond a compound derivative with the characteristics of bonds and stocks which accredit the features of its various influences on market. Due to the right of choice, the interest of convertible bonds is lower than that of normal bonds [2].

Since the first issue of convertible bond in the year of 1843, convertible bond has become one of the most important financial ways in capital market. For those listed companies which plan further financing, the largest

advantage compared with other ways of financing is its low cost. The interest of convertible bonds is less than pure bonds. As a consequence, its cost is below that of private company bonds. Meanwhile, before converting, interest can be paid before tax and thus it has the role of interest tax shield. Once converted, financial pressure will disappear [3]. Besides, the issue price of convertible bonds is generally high and if they are converted at a higher price, convertible bond holders will obtain more capital. At the same time, the issue of convertible bonds will ease profit dilution which is caused by the over-quick expansion of capital stocks. Since the conversion period of convertible bonds is quite long and capital stocks will increase gradually, the profits of each share and net assets will be diluted step by step [4].

Bond announcement effect, also called shareholder asset effect, mainly checks the influence of the issue of bonds to the price of company stocks. Issued announcement effect differs owing to the different natures of different financing tools. Studies indicate that the issue of stock financial tools will have prominent negative effect on stock prices, while the issue of bond financial tools will have positive effect on stock prices [5]. Due to the relatively large uncertainty of the announcement effect between stocks and bonds, different announcement effects occur in different countries and during different periods.

2. Theoretical Basis about Convertible Bonds and Announcement Effect

The short-term market performance of convertible bonds refers to the direction and degree of influence that convertible bond issued announcement has on the stock price of listed company, also called announcement effect. The study has guiding significance on company managers, for they need to learn the influence on company stock price of financing ways of convertible bonds or other financing ways and then make the best financing strategies [6].

Generally speaking, announcement effects generally refer to the influence brought by the issue or occurrence of an economic or political event. The mechanism of positive influence that convertible bond has on performance is as follows: conversion option is added to bonds, and agency costs between shareholders and managers will be reduced, in this way, over-investment or lack of investment will be restrained which come from managers' opportunism; conversion option is added to bonds, agency costs will be relieved which come from the conflicts between shareholders and creditors, therefore, companies will obtain low-cost funds which can avoid the lack of funds; conversion option is added to bonds, information cost owing to information asymmetry will be released [7]. As a result, investors will estimate company risk reasonably and over-investment and lack of funds will become less. The cost of convertible bond is obviously lower than that of bank loan as well as the level of cash bonus. Meanwhile, income tax will be reduced due to tax shield effect of bonds. Conversion option is added to bonds, the over-fluctuation of stock prices will be reduced and company risk will be lowered. As a consequence, capital cost of companies will be reduced [8].

3. Statement on Convertible Bond Issued Announcement Effect

3.1. Studies from Abroad

Studies from abroad on convertible bonds has a long history and are relatively comprehensive which benefit from the mature capital market in developed capitalist countries [9]. Besides, convertible bonds exist longer abroad and issued quantities and the amount of money of convertible bonds are relative large. Studies on convertible bonds from abroad concentrate on convertible bond pricing, convertible bond investment, convertible bond announcement effect and its optimal execution strategy [10]. This paper mainly involves convertible bond announcement effect and issued motive. Studies on convertible bond announcement effect include theoretical studies and empirical studies which this paper focuses on the latter. The study is carried out through the performance of market stock price after the issue of convertible bonds. Case study is usually applied in announcement effect and abnormal return rate is computed by market model. Suppose that personal stock return rate has a linear relationship with market return rate and stock return regression model will be built on market return rate.

There are a lot of papers on empirical study of convertible bond issued announcement effect and studies indicate that in most part of the market, convertible bond announcement appears negative effect in price [11]. However, the pricing effect intensity of convertible bond differs in different markets due to different management mechanism and corporate governance structure, among which the American market is the most significant [12], convertible bond issued announcement in European and American market has less negative effect than that in

American market [13]. But studies on some emerging markets make it clear that the issue of convertible bond has positive effect [14]. For example, through case study, Damn, Mikkelon (1984) [15] and Mikkelson and Partch (1986) [16] discover that convertible bonds have an effect of -2% during two trading days. Abhyankar and Dunning (1999) chooses 112 convertible bonds during 1982 and 1996 for study, and the result shows that the overall effect in British stock market is negative, and the profit rate is -1.21% , which is less than that in American companies [17]. Kang and Stulz (1996) abnormal return rate of announcement effect is positive which is contrary to European and American countries [18]. The contrast derives from different corporate governance. De Roon and Veld (1998) study stock market influence of convertible bond in Holland and find out that abnormal profit rate is 0.16% on the announcement day, 0.23% after the announcement day but not obvious [19].

3.2. Studies in China

Tang Kangde (2004), studies 21 convertible bond samples issued in China during 2000 and 2003 and the result indicates that the average abnormal profit rate is -0.66% , and the accumulative abnormal profit rate is 1.53% in the range of $[-30, 30]$, but both are not obvious [20]. Liu Yancheng and Wang Qiwen (2005) study convertible bond samples of 21 companies and study indicates that there is no significant abnormal profit on neither the day after nor before the announcement day, with 0.64% normal profit rate after the day of announcement [21]. Liu Eping (2005) studies convertible bond samples during 2001 and 2003, and find out that convertible bond announcement has significant negative effect [22]. Meanwhile the negative effect is mainly on the announcement day. Zhang Weidong (2010) believes that when listed company issues convertible bonds, market performance will not decrease notably because there is no exploitation that non-circulation shareholders impinge on circulation shareholders [23]. As a consequence, market performance of convertible bonds is better than that of rationed shares and new equity. Zeng Kanglin (2010) takes 20 listed companies which can issue detachable trade and convertible bonds during May 8th, 2006 and December 31st, 2008 and chooses the issue day of instruction booklet as the event day [24]. His study indicates issued announcement of detachable trade and convertible bonds of listed company has significant positive effect and further study shows that announcement effect is influenced by issue scale and dilution rate.

4. Account of Issued Announcement Effect

4.1. Studies from Abroad

In the aspect of the interpret of announcement effect, information asymmetry and financing theory are the two major theories. Generally speaking, we choose interpret variables on the basis of issue motive theory and then set up empirical models to carry out reasonable interpret on announcement effect and draw meaningful conclusions [25].

In western countries, due to mature stock market, scholars have a head start and have a relatively thorough study in convertible bond influencing factors. They put forward various hypotheses and at the same time have the hypotheses tested. Heinkel R. (1982) points out that investors have the right to decide whether to design in advance to convert shares or not according to the future development condition because convertible bonds have option property in the future [26]. In this way, agency conflict between shareholders and creditors to a certain extent. Convertible bonds have the option property that can be converted to stocks in due time, hence, convertible bond shareholders can avoid excessively high expected risk [27].

Backdoor equity financing hypothesis of Stein (1992) receives universal acknowledgement and also is verified through empirical studies by many scholars [28]. He states that normal bonds have the risk that company has to pay more interest and pay back huge amount of capital at one time, meanwhile, adverse selection cost which is the result of severe information asymmetry makes company issued stocks unattractive to investors, in such circumstances, company's motive of convertible bond financing will be enhanced [29]. Therefore, he points out that the original purpose of issued convertible bonds of company is to obtain equity financing through stock conversion of investors.

Mayers (1998) put forward continuous financing hypothesis on the basis of the uncertainty of future investment equity value [30]. Issue cost and over-investment are emphasized in the two-period model he designs. Having compared the three financing plans of normal bond, convertible bond and stock, he argues that convertible bonds can not only lower the overall cost of company's financing external in the process of continuous fi-

nancing, but also prevent over-investment behaviors of managers. When stock price of targeted company booms, external investors in security market will convert their shares, so cash will flow into the company and issue cost will be reduced. Besides, if equity investment is valueless, investors will not convert their shares, then the regulation of payment of both principal and interest at a regular time will reduce free cash flow in internal company. In this way, over-investment of managers will be prevented.

Jalan and Barone-Adesi (1995) set a cooperative game model to check the motive of company to choose convertible bond financing [31]. They believe that convertible bonds charge different rates for interest and dividend, and in this way, its property of reducing tax will stand out. Compared with equity financing, company pays convertible bond investors certain amount of interest, and these shares of interest are the money that must be paid before tax, thus tax of company will be reduced. It can be seen that convertible bonds play the role of tax shield. At the same time, unlike normal bonds that need to pay huge amount of interest and burden financial crisis that pay for huge debts, they put forward tax deduction effect on the basis of study.

4.2. Studies in China

Studies on the issue of convertible bonds of listed company start late in China, and only a few study fruits can be found. Ke Dagang and Yuan Xianping (2006) choose companies which issued convertible bonds during January, 2002 and December, 2004 as object of study [32]. They check the motive these companies. Studies show that motives of companies in China which issue convertible bonds don't agree with backdoor interest financing hypothesis. Xu Ziyao (2009) choose further issue, convertible bond and stock allotment as research samples in order to explore the motive of the issue of convertible bonds of listed companies [33]. He makes a comparison about the three ways of financing cost. Studies indicate that the cost of convertible bonds refinancing for listed company in China is significantly lower than that of equity refinancing. Then, one of the motives of company to choose convertible bonds is to get lower external financing cost. Pei Zhenzhen (2011) makes a comparison about listed companies which issued convertible bonds and public further issue during January, 2007 and April, 2011 on the basis of theories and hypotheses abroad [34]. Her study shows that the most concerned factors when issuing convertible bonds include financial risk, development of company, adverse choice cost and relatively high equity concentration, while such factors as tax deduction effect are less considered. Li Bingyang and Li Juan (2013) choose listed companies which issue convertible bonds and public further issue financing as objects to check the influence of control right profit motive on the choice of convertible bond financing behavior of listed company on the basis of the point of shareholders' right of control [35]. Studies show that control right profit, net assets of each share and each share free cash flow have significant positive relationship with convertible bond financing of listed company. However, the proportion of five largest shareholders doesn't have prominent relationship with the choice of convertible bonds [36] [37].

5. Conclusions

Conclusions can be made on the basis of the analysis of literature review of scholars in various countries.

In the area of convertible bond financing announcement effect, scholars in British and American have the same research result, which argues that the issue of convertible bond has prominent positive effect on stock price; scholars in Japan and Holland draw the conclusion that convertible bond issue announcement has positive effect on company stock price. In China, researches prove that convertible bond issue pre-arranged plan will have clear negative effect, but there are a lot of controversies over the explanation of negative effect at home which mainly result from the limitation of the amount of samples, short time scale of selected samples and different research methods, etc.

In the interpretation of announcement effect, it is mainly based on convertible bond issue motive theory and then proper variables are selected and interpreted in the end. In the aspect of study of convertible bond issue motive, scholars from abroad have deeper researches and put forward various hypotheses and then verify them. Convertible bond market in China is still on the way of development, the amount of issue is limited, and researches in this area at home start late. As a consequence, there are no uniform standards and theoretical analysis frame has been built. Many scholars in China refer hypotheses from abroad and haven't considered different regulations and market environment. Therefore, the choice interpretation variable should combine with the actual situation in China. In this way, conclusions drawn can be persuaded and meaningful.

In the past, studies on finance performance of companies which have issued convertible bonds at home

usually draw the conclusion that performance gets worse only on the basis of the data one year or two before or after the issue of convertible bonds. This is not scientific. Convertible bond is a way of collecting money for listed companies and its purpose is to obtain return from investment. It is a process from investing money into a program to get return, so it is necessary to study the performance of the company from the issue day to the expiring date. Only in this way, can the studies be persuaded. Previous studies can't make sufficient researches for the limitation of samples and convertible bonds are not due.

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