

Research on Convertible Bond Issuance Program

-- Taking Jiangnan Water Company as an Example

Zhongquan Sun*, Le Yang and Lin Tong

Business School, University of Shanghai for Science and Technology, Shanghai 200093, China

* Corresponding author: Zhongquan Sun (Email: szq217@qq.com)

Abstract: As of 2023, it has been 32 years since convertible bonds were introduced into China. In 1992, Baoan convertible bonds, as China's first convertible bonds, were issued with an issue size of RMB 500 million, thus opening the door to China's convertible bond market. However, for a long time, due to the imperfection of relevant laws and regulations, the growth rate of the convertible bond market has been very slow, and listed companies prefer equity financing, which makes it difficult for convertible bonds to be implemented on a large scale. However, since 2015, the Securities and Futures Commission (SFC) has issued a series of laws and regulations, including the Implementing Rules for the Non-public Offering of Shares by Listed Companies (2017) and the Notice on Matters Relating to the Reporting of Procedural Transactions of Convertible Bonds (2021), which shows that the SFC intends to promote the standardized development of convertible bonds. As a result, the number and size of convertible bonds have grown rapidly, and convertible bonds have become increasingly popular among low-risk investors. In the increasingly hot situation of the convertible bond market, this paper chooses Jiangnan Water Company as a typical case representative, through the analysis of its convertible bond issuance program, the company's early resale behavior of the motivation and impact to find the problems in the corporate issuance of convertible bonds, and for the future want to issue the convertible bonds of the company to provide the applicable recommendations, the following is the research of this paper to improve some of the measures: choosing the right time of sale; the establishment of convertible bonds early warning system, strengthen internal control; according to the financing project to select the appropriate financing methods, and so on.

Keywords: Convertible bonds; Internal control; Debt financing.

1. Introduction

As early as the 1850s, the financing method of convertible bonds had already appeared in developed countries and gradually matured. In 1992, Baoan convertible bonds, as the first convertible bonds in China, with an issue size of 500 million yuan, opened the door to convertible bonds in China. Unfortunately, due to the lack of perfect laws and regulations and policy support, Bao'an convertible bonds in its survival period have been lower than their conversion price and did not succeed in conversion, since then convertible bonds as a financing method have been lukewarm for nearly 20 years.

Around 2015, after the implementation of the Notice on Doing a Good Job in Issuing Convertible Corporate Bonds of Listed Companies, the convertible bond market ushered in the development. In 2017, the Securities and Futures Commission (SFC) issued the Implementing Rules for the Non-public Offering of Shares by Listed Companies, which regulated the problem of over-financing and maintained the stability of the market while focusing on the liquidity of the market. As shown in Figure 1-1, the number of convertible bond issuances in 2017 was 14.67 times the number of issues in 2015 and 3.67 times the number of issues in 2016, and convertible bonds are gradually used as one of the financing methods for listed companies. Meanwhile, from the point of view of the total financing, the total financing in 2017 was 10.01 times the total financing in 2015 and 4.18 times the total financing in 2016, which shows that convertible bonds are also becoming more popular on the investor side, and thus the convertible bond market has ushered in the golden period of rapid development. 2021 The SEC continued to launch the

Notice on Matters Relating to the Reporting of Procedural Transactions of Convertible Bonds, which encourages enterprises to further utilize convertible bonds as a non-equity financing method and further regulate the development of the convertible bond market.

In the rapid development stage of the convertible bond market, this paper selects the representative case of Jiangnan Water, combines the industry characteristics, assets and liabilities status, and financial indicators to discover the problems in the issuance of convertible bonds by enterprises to discover the problems in the issuance of convertible bonds by enterprises and to provide applicable suggestions and improvement measures for the companies that are going to be financed by the issuance of convertible bonds in the future.

2. Jiangnan Water Company Profile

2.1. Business situation

Jiangnan Water Co. is a state-controlled listed enterprise, with main businesses of tap water production and sale, water supply engineering design and technical consulting, drainage and related water treatment business, water quality testing, and water meter metering investment. At present, it has 3 wholly-owned subsidiaries, 8 shareholding companies, and 2 partnerships, and its actual business involves water supply, drainage, municipal engineering, solid waste disposal, fund investment, and other fields.

The company has 4 groundwater plants, the water source is the Yangtze River, water quality belongs to the surface water II, water supply area of 986.97 square kilometers, of which the beneficiary population reached nearly 2 million people, the water quality of the integrated pass rate of 100%. The

company has won excellent county and town water supply enterprises and dozens of other honors.

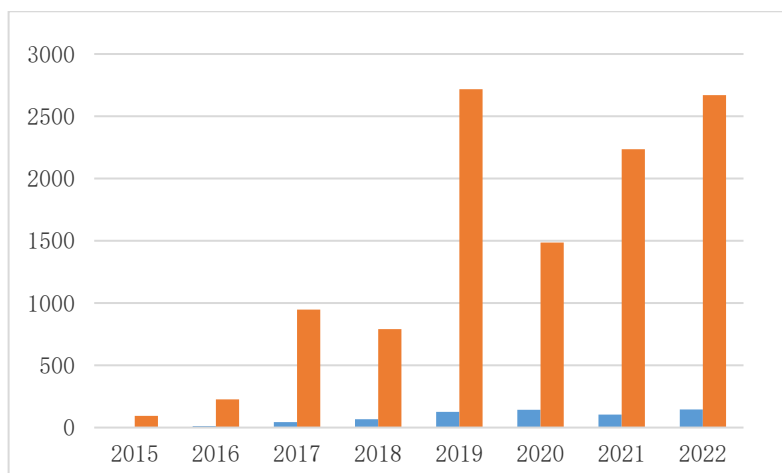


Figure 1. Convertible bond issuance

2.2. Conversion terms and their exercise

Jiangnan convertible bonds have been listed and traded since April 5, 2016, with an initial share price of 19 yuan a share. The conversion price was revised downward to 9.41 yuan a share on June 15 of the same year, entering the conversion period on September 26, 2016. The conversion price was revised downward three consecutive times to 6.02 yuan a share between June 2017 and June 2018, and the conversion price was revised downward three consecutive times to 6.02 yuan a share. Throughout the whole process, it

can be seen that the conversion ratio of Jiangnan's convertible bonds is low, which is contrary to the management's preconceived hope that convertible bonds can be converted to achieve low-cost financing.

Jiangnan convertible bonds resale terms are more relaxed, unlike most of the convertible bond requirements only allow resale in the last two interest-bearing years, Jiangnan convertible bonds can be resold in the third interest-bearing year, and the resale period is earlier. At the same time, Jiangnan convertible bonds do not limit the number of resales in a year, resulting in four resales in 2018 alone, which is rare.

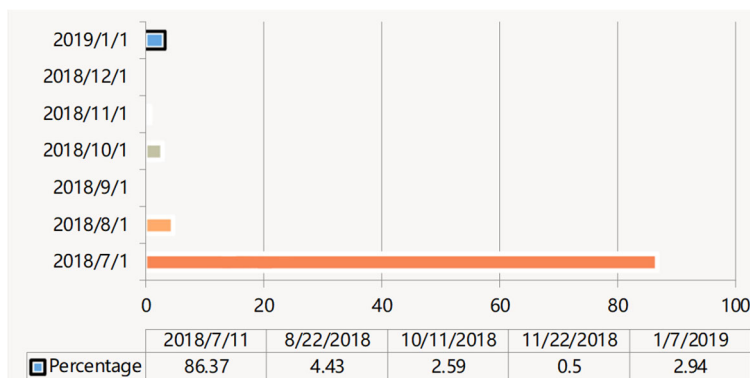


Figure 2. Convertible bond resale

3. Issuance Motivation Study

3.1. The need for financing

Jiangnan Water intends to issue 760 million convertible bonds to raise funds from the public for the Jiangyin Emergency Backup Water Source Project. The project has a total investment of 900 million yuan, and after completion, it is expected to realize an average annual sales revenue of 139 million yuan, an average annual net profit of 71,302,200 yuan, and a payback period of about 12.22 years (including the construction period of 2.5 years). The project aims to solve the problem of a single source of water supply for local drinking water.

3.2. Difficulties in internal financing

On the one hand, the income brought by the water business

is very stable, on the other hand, the water business is a public utility, and if the price of water is raised it should be done through a hearing system, which needs to solicit the opinions of all parties including the government and consumers. Overall, the price increase behavior is a cumbersome and long process, far less easy than issuing convertible bonds to raise funds.

3.3. Growth of the company

The funds obtained by issuing convertible bonds are conducive to perfecting the company's business processing capability and expanding the company's business operation scope, which is beneficial to the company's sustainable development in the long run.

4. Analysis of the reasons for failure

(1) Improper timing of the issuance

To the node of the company through the Jiangnan water pre-proposal (December 29, 2014), at this time in the bull market of A shares, and in June 2015 the SSE index reached a new peak; to the node through the SEC review can be formally issued (April 5, 2016), the issuance of the convertible bonds of Jiangnan is in the period of confusion of the A shares, and the SSE index has dropped from 5178.19 to 3053.07, despite the rapid decline, but the next is a bull market or bear market is difficult to predict; the node of the following revision of the share price (2018), the issuance period is in a bear market, so it led to Jiangnan Water continuous downward adjustment of the share price to the final resale.

(2) Failure to make risk planning

Jiangnan Water in the issuance of convertible bonds, especially when located in a period of confusion should be done if the next bear market should be how to design the terms of the convertible bond issuance of the plan, to foresee the financial risks in advance, to minimize the company's future financial pressure.

(3) Too loose resale terms

To issue a successful resale terms are too loose, both in advance of the earliest allowable resale time and do not limit the number of times within a year to sell back. Unlike most convertible bonds, which require that resale be allowed only in the last two interest-bearing years, Jiangnan Convertible Bonds are allowed to be resold in the third interest-bearing year, which is an earlier resale period. At the same time, Jiangnan Convertible Bonds did not limit the number of resales in a year, resulting in four resales in 2018 alone.

(4) Failure to set a reasonable conversion price

Through the above, we can know that during the survival of Jiangnan convertible bonds had three consecutive downward revisions of the share price, the reason for which, in addition to the entire market being in a bear market, in the beginning, also failed to set a reasonable conversion price. At the beginning of the issue of convertible bonds, Jiangnan Water Company's share price the high period, Jiangnan Water Company did not look deeply into the reasons for the emergence of the high share price, blindly believed that their profitability was better, and ignored the reasons for the environment is thriving, failed to correctly assess their strengths and incorrectly set up a high conversion price, so that the need to later continue to be revised downward, a serious blow to the investor for the conversion of the behavior of the enthusiasm of investors, also for the later recovery behavior, the enthusiasm. It also laid the foundation for the later recovery behavior.

(5) Limited project profitability

Jiangyin emergency backup water source project is to realize the Jiangyin multi-source safe water supply pattern and build, with the nature of public welfare projects, the project was completed after the actual profitability is limited. Because the Jiangyin city water business is monopolized by Jiangnan Water Company, at the same time as a state-controlled enterprise, even if it is expected that the Jiangyin Emergency Backup Water Project project can not achieve the expected profit or even loss, Jiangnan Water Company has no reason and the right to refuse.

(6) Management corruption and inaction

In June 2018, the Jiangsu Securities Regulatory Bureau

issued an administrative penalty decision showing that Zhou Lin gained 9,387,900 yuan in violation of the law for insider trading in the shares of Jiangnan Water Company Limited. Jiangsu Securities Regulatory Bureau decided to confiscate all the illegal income, and "no one penalty two". The total amount of confiscation is up to 28.1637 million yuan. This illegal trading amount is among the top in 2018. The insider information is about the favorable news of the substantial increase in revenue and profit in Jiangnan Water's 2015 annual report. According to the 2016 consolidated income statement of Jiangnan Water's head office and three subsidiaries, the annual net profit in 2015 increased by 52.24% compared with last year.

This insider information trading can be seen in Jiangnan Water Company part of the management does not act, take the public right to seek private gain behavior, this is a state-controlled enterprise that needs to overcome the problem, of how to minimize the agency cost between shareholders and managers through some measures.

5. Suggestions and Measures

Under the increasingly hot situation of the convertible bond market, this paper chooses Jiangnan Water Company as a representative case, analyzes the motivation and influence of its convertible bond issuance and early resale, combines the industry characteristics, assets and liabilities and financial indicators to find out the problems of Jiangnan Water Company's convertible bond issuance, including inappropriate timing of the issuance, failure to do the risk plan and the limited profitability of the project, and provides applicable recommendations and improvements for general. The company issued convertible bonds to provide applicable recommendations and improvements: including reasonable avoidance of financing risks; the establishment of convertible debt early warning system, strengthen internal control; according to the financing, project to choose the appropriate financing methods and other measures.

5.1. Reasonable avoidance of financing risks

(1) Choose the right time for issuance

The stock market trend can generally affect the stock price trend, and the stock price trend will be a great probability to determine the success of the convertible bond conversion behavior. If the company's stock price is higher than the conversion price, the probability of conversion behavior is higher; if the company's stock price is lower than the conversion price, the probability of conversion behavior is lower. Then enterprises should pay attention to the stock market environment when issuing convertible bonds, the best situation is out of the bull market, investors have to convert so that the issuance of both the lower cost of obtaining financing and the follow-up is exempted from the financial pressure of debt repayment.

(2) Reasonable design of convertible bond terms

Reasonable terms of convertible bonds should include internal and external two levels of planning, both to focus on the company's ability to operate smoothly and sustainably, to maintain stable profitability to inspire investor confidence, but also to focus on the external price fluctuations for the impact of convertible bonds, to be proactive. Enterprises issuing convertible bonds should consider whether the coupon rate of convertible bonds in the terms of issuance is reasonable, whether the conversion price takes into account the risk of the stock market and whether it achieves the best

balance of interests, and also consider the number of times of resale and the resale coverage period in the resale terms.

5.2. Establishment of convertible bond early warning system and strengthening of internal control

It is recommended that the Company set up a special group to establish a convertible bond early warning system, establish a sound governance framework, clarify the reward and punishment system, and delineate the boundaries of responsibilities to prevent management inaction and corrupt behavior. By analyzing and testing the process of issuing convertible bonds in an all-around way, the company can take corresponding measures in time to reduce risks and improve returns in the process of issuing convertible bonds. Can set some indicators such as solvency, profitability, and operational capacity, in the comprehensive consideration of these indicators for early warning and governance, not only for the issuance of convertible bonds to achieve the expected returns but also to protect the confidence and interests of investors.

5.3. Choose the appropriate financing method according to the project

China is now in the growth period of the convertible bond market, to develop a more stringent policy to avoid the possible risks of issuance of convertible bonds in the market, but later in the market maturity should be appropriately relaxed after the macro-policy restrictions, so that the invisible hand of the market to play a role. In financing,

according to the actual situation of the project to choose matching financing methods, convertible bonds are not necessarily the optimal solution, to analyze the specificity of the project, the appropriate choice of debt financing and equity financing. As an enterprise in need of financing, it is necessary to make a reasonable assessment of the risk according to the chosen financing method.

References

- [1] K. G. Nyborg. The use and pricing of convertible bonds, *Applied Mathematical Finance*,1996,3(3), p.3-4.
- [2] Kim Byung-June,Jang Bong-Gyu.Convertible bond valuation with regime switching.*Chaos, Solitons and Fractals: The Interdisciplinary Journal of Nonlinear Science, and Nonequilibrium and Complex Phenomena*,2021,150(150), p.62-64.
- [3] Xiong Jiawei. Research on the analysis of financing failure of convertible bonds issued by Jiangnan Water (MS., Jiangxi: Nanchang University, China, 2019), p.37-p38.
- [4] Hao Mengyun. Research on conversion pricing of convertible bonds of Jiangnan Water (MS., Beijing Jiaotong University, China,2020), p.44-p49.
- [5] Marie Dutordoir,Norman Strong,Marius C. Ziegan. Does corporate governance influence convertible bond issuance?[J]. *Journal of Corporate Finance*,2014,24:
- [6] Adoukonou Olivier,Andre Florence,Viviani Jean-Laurent. Callable convertible bonds in sequential financing: Evidence on the Western European market[J]. *Journal of Multinational Financial Management*,2018,45: