

Current Situation, Problem and Solution of the Bond Market of China

Yanwen Zhang^{1,a,*}

¹*University of Birmingham, Birmingham, UK*

a. YXZ060@student.bham.ac.uk

**corresponding author*

Abstract: In 2010, the economy scale of China has become the second largest in the worldwide after exceeding Japan which just next to the economy scale of United States which has kept playing an important role in the global economy. In this case, more and more attention has been focused on it and especially for its financial market which is young but huge in scale. However, as the Chinese financial market was firstly established in 1993, the history of its development is very short and the research related to it is very limited, particularly for the bond market of China which has a very different institution and structure compared with the bond market of the main developed countries in the world where the main changes are followed by the instruction and plan of the government. As the bond is the financial instrument which decides the interest rate, its market has a great influence on the financial liquidity of the whole economy. In addition, the high interest rate in the bond market of China compared with the other bond market has also attracted the foreign investors in the whole world to increase their investment to the market. Therefore, studying the bond market of China is very helpful in understanding the current situation of the bond market of China so as to find out its problems and solutions which are very important for the economy to grow in a healthy way. In this paper, the solutions of how to solve the problems about the risk, market efficiency and the sustainable development of the bond market of China will be analyzed based on its current situation including the structure and scale.

Keywords: Bond Market of China, Structure, Scale, Credit Rating, Market Efficiency.

1. Introduction

Normally, it is believed that the modern development of the Chinese economy started from carrying out the policy of “Reform and Opening” since 1978, where China has also developed a unique governance system to support its economy and politics which is very different compared with the main developed countries in the world. Both of the advantages and disadvantages of this governance system is very obvious. As it is mentioned by Bardhan among others [1-3], in this system, the centralized political power has been well combined with the decentralized economic power and responsibilities where government has now become a part of market economy and affect the economy indirectly by using the method of market behavior instead of the administrative order. In this case, the incentives of accelerating the economic growth in the local level has been increased by this system while the ability to keep making and carting out the decision quickly in the long run has also been maintained; However, as the centralized political power has been sustained, without the regulation

and challenge from the level, abuse of power and making mistakes has become big problems which are hard to be correct by itself as there are no effective institution could be used to measure and manage it.

As the governance system of the whole country in China, the characteristics of this governance system has greatly affected the Chinese economy. Under this situation, how to minimize the negative effect caused by this governance system is very important especially for the emerging bond market of China where the developing history is very short, and the institution and situation compared with other bond market is very different. Based on the situation mentioned above, this paper will focus on how to solve the problems caused and related to the governance system will be mentioned based on the analysis of the current situation of the bond market of China. Firstly, the structure of how the bond market of China works which is consisted of the details about the different kinds of bonds, issuers and markets will be illustrated based on the data and information from FTSE Russell [4] and Seafarer [5]. Secondly, based on the analysis of the current situation mentioned in the first part, the problem of the market risk mentioned by Seafarer [5], the problem of market efficiency mentioned by Zhang, Wang and Tong [6], and the problem of carbon risks mentioned by Wu and Tian caused by credit rating and regulation system will be illustrated separately. Thirdly, focusing on the problem mentioned above, the solution about how to improve the credit rating system will be explained.

2. Current Situation

2.1. Structure

As an emerging and the second largest market of bond in the world, bond market of China has its own special structure. In this section, how the bond market of China is working now will be illustrated in the following aspects which are types of issued bonds, types of issuer & amounts, and venues & regulators.

Firstly, in Table 1, we can see that there are six main types of bonds issued in the bond market of China which kind be generally classified as two kinds.

The first kind is the bond issued by the government directly or the organization with government background which are the government bonds, local government bonds and the policy bank bonds. The government bonds are issued by the Ministry of Finance as a part of capital resources to support the budget of the central government. One of the features of the Chinese economic elements are the policy banks. The policy bank bonds are issued by the three unique government-backed banks which are Development Bank of China, Agriculture Development Bank of China and Export-Import Bank of China which are mainly being used to support the financing of the major Chinese infrastructure projects. The local government bonds are issued by the local provinces and cities and borrowed from the Local Government Financing Vehicles (LGFVs) which are mainly used to satisfy the financing needs of the local infrastructure projects.

The second kind of bond is issued by the companies which are the corporate bonds, financial bonds and enterprise bonds. The difference between corporate and enterprise is whether the company is a listed in the Stocks Exchange or not. As it is mentioned by Seafarer [5], during the period from 1997 to 2007, the bond issued by the state-owned corporates and enterprises are guaranteed by the state-owned commercial bank. The increasing risk of the state-owned commercial bank caused by the increasing guaranteed debts of the state-owned enterprise has led to the notification of the regulators and reforms has been conducted to restrict the guarantee of the enterprise bonds so as to decrease the risk of the commercial banks. One year later, the bond market of the private placements has been established to satisfy the financing needs of the enterprises as borrowing loans from the commercial banks by the enterprise are limited. This has greatly changed the bond market structure and the financing way of the enterprise especially for the corporations in smaller size.

Table 1: Bond Types issued in the Onshore bond market of China

Bond Type	Issuer	Total onshore market (%)	Amount outstanding (CNY, trillion)	Market
Government	Ministry of Finance	16%	16.1	CIBM & Exchange
Local government	Provincials & municipalities	23%	23.2	CIBM & Exchange
Policy bank	Chinese Export-Import Bank Chinese Development Bank Chinese Agricultural Development Bank	16%	16.0	CIBM & Exchange
Financial	Financials	6%	6.3	CIBM & Exchange
Enterprise	Corporates	4%	3.7	CIBM & Exchange
Corporate	Corporates	8%	7.9	Exchange only

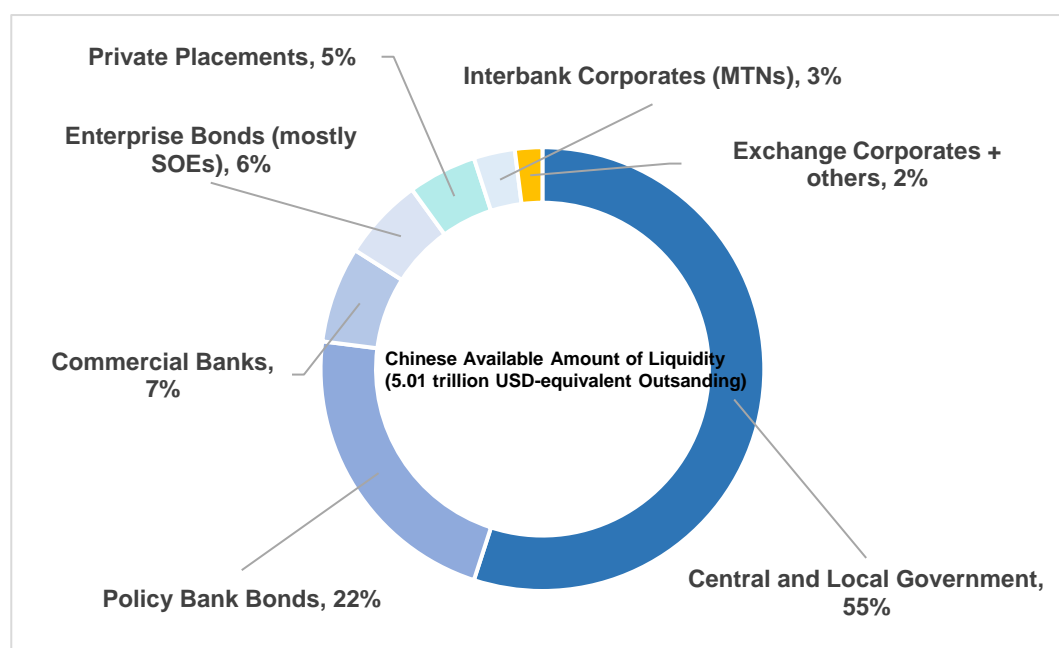


Figure 1: Outstanding bonds by issuer types and venues.

Secondly, there are seven types of outstanding bonds in the bond market of China classified by the different types of issuer and venues just as what has been shown in Figure 1. Until the end of 2020, it is very clear that the about 90% of the total outstanding bonds are issued by the government and related issuers compared to only 10% left for the corporate bonds. What's more, the market of

interbank has occupied almost all of the outstanding bonds where only 2% of corporate and other kinds of bonds are being traded in the exchange market. Therefore, it is very clear to conclude that the main types of issuers are government and related organizations and the main venue for the market is the market of interbank.

Thirdly, as it has shown in the Table 2 below, there are three different kinds of the bond market, and which are being regulated by three different regulators separately. The bond market of Interbank bonds and Medium-Term Notes (“MTNs”) established in 1993 is mainly focusing on providing the trading venue of market of interbank which aims to fulfill the financing needs of both organization from the public and private sector. Also in 1993, the bond market of Exchange Corporates has been established so as to give the companies another platform to finance themselves which is face to the individual investors in the Exchange Traded Market. In addition, the secondary bond market is consisted of the market interbank, market of exchange, and the market of over-the-counter market where the market of interbank has now become more and more active and has overtaken the exchange market which was the most active in the past nowadays.

Table 2: Venues and Regulators of Bond Market of China.

Market	Year Established	Trading Venue	Types of Issuers	Regulators(s)
Interbank Bonds and Medium-Term Notes (“MTNs”)	1993	Market of interbank	Central and Local Government, Policy banks, Commercial banks, SOEs, Corporations	National Development and Reform Commission (NDRC), People’s Bank of China (PBOC)
Private Placements	2008	Market of interbank	Smaller Corporations	PBOC
Exchange Corporates	1993/2015	Exchange Traded Market	Non-financial Corporations	China Securities Regulatory Commission (CSRC)

2.2. Scale

The method to satisfy the financial demands of the government and business entities by acquiring loans from the commercial banks (mainly state-owned) since 1990s has been changed under the concern of the increasing risk that the commercial banks has sustained. Although the policy proceeded by the government in 2007 only allowed the listed companies to issue corporate bonds where the enterprise bonds issued by the unlisted companies are prohibited. However, the limitations imposed on the unlisted companies has been removed in the reform of 2015. What’s more, in order to increase the accountability and the transparency of the local government, borrowing loans from the commercial banks has been restricted where only issuing bonds in the market to finance itself is allowed [4]. As the local government were trying to maintain the economic ratios which are related to the examination of their performance, huge amount of the capital coming from the issued local

government bonds financed by the local government financing vehicles (LGFVs) has been invested into the infrastructure projects [3]. The reforms of the bond market in 2015 about the unlisted enterprise and local government [7] has kept increased the amount of both the issuing government bonds and enterprise bonds in the bond market of China in the past 10 years until 2020 just as the information details mentioned in the report of FTSE Russell [3].

Meanwhile, as it is mentioned by Seafarer [5], compared with the 33.9 trillion USD bonds issued in the bond market of the United States where 23.9 trillion of them are issued by the government of the United States, the total bonds issued in the bond market of China was only 286 million in 2000 and has increased to 15 trillion USD-equivalent with 9.7 trillion issued by the government in 2020 just as what has been shown in information and data provided by Seafarer [5]. In conclusion, bond market of China is an emerging market mainly consisted of government-related bonds and traded in the market of interbank which has increased sharply in the years recently.

3. Problem

Although the bond market of China has grown up quickly in the recent years, there are still three problems being mentioned by the professional and scholar which have kept affected the development of the bond market of China seriously. Besides, these problems have also affected the confidence of the foreign investment under the situation where the foreign investment in bond market of China kept increasing [8].

The first problem is about the credit rating system of the bond market of China.

Table 3: Credit rating of issued interbank bonds.

Actual domestic Rating (At Issue)	Number of Bonds	% Total	6-notch Adjusted Rating (Hypothetical)
AAA (Aaa)	5,545	50.1%	A- (A3)
AA+ (Aa1)	2,165	19.6%	BBB+ (Baa1)
AA (Aa2)	2,612	23.6%	BBB (Baa2)
AA- (Aa3)	148	1.3%	BBB- (Baa3)
A+ (A1)	100	0.9%	BB+ (Ba1)
A (A2)	52	0.5%	BB- (Ba3)
A- (A3)	440	4.0%	B+ (B1)
BBB- (Baa3)	11	0.1%	B- (B3)
Total	11,073		

As it is mentioned by the Seafarer [5] that one of the serious problems for the development of the bond market of China is that the “confusing local credit ratings”. The conflict of interest is very clear that the five of the nine domestic rating agencies are partly state-owned under the current situation that the main part of bonds in the bond market of China are issued by the issuers with government background. Although it seems that the form of credit rating agencies (CRAs) is independent and public, as they are actually controlled by the government and being used to serve the government policies. What’s more, there are lack of regulation to the CRA during the process of competing for the profit and the market share where, 95% or more of the outstanding interbank listed and rated bonds are being rated from the level of AA to AAA since issued and only 0.11% of which has been rated in the level of BBB+ or lower. With some event of default and scandal, the reliability of the Chinese credit rating agencies has been seriously decreased. In this case, the crediting rating result of the bond market of China are more likely to be overvalued. By comparing the actual domestic rating and the hypothetical 6-notch adjusted rating, the result shown has been shown in Table 3 where the huge difference has been found. This result could also be supported by the evidence and research

mentioned by Livingston, Poon, and Zhou (2018) where the lend creditability to the rating of the three international CRAs are more reliable than the results provided by the domestic CRAs.

The second problem is about the market efficiency of the bond market of China.

As it is mentioned by Zhang, Wang and Tong [6], by using the econometric models to measure if the emotion behaviors of CRAs and bond investors are affected by the internet financial news, the result has shown that the internet financial news has almost no effect on the CRAs and both of the good or bad news are having strong effect on the emotion behavior of the bond investors. In this case, the situation and problems which has also been mentioned by Seafarer [5] has happened frequently where the crediting ratings of the bonds have only been decreased before serval days of default where the financial news about the default risk of the companies has long been mentioned in the internet financial news and has greatly affected the emotion behavior of the bond investors. This suggests that the credit rating of the issued bond has lagged seriously and the efficiency of providing information for the market is very low compared with the internet financial news which has not satisfied the information needs of bond investors. This has also seriously affected the confidence of the bond market of China investors and has increased the potential risk of investing the bond where the problem could be solved by improving the structure and regulations of the credit rating industry by the government.

The third problem is how the bond market of China is going to face the current requirement of caused by the goal of sustainable development.

As it is mentioned by Wu and Tian [6], empirical result of conducting the variables and empirical models has shown that among the three potential factors of the bond credit rating and the carbon risk which are the information transferred by the credit rating agencies, credit risk and the way of fund financed being invested, the result has shown that the information transferred by the credit rating agencies is less effective and inefficient in affecting the relationship between the bond credit spreads and the credit risk. The similar problem about the market efficiency of the bond market of China has also been mentioned by Hung et al [9] which is mainly caused by the “information asymmetry”. This means that under the current situation and the requirement of the sustainable development, it is very important for the credit rating agencies to be more effective and efficient in reflecting the carbon risk coming from the bond issuer of different industries and entities.

4. Solution

Based on the current situation of the bond market of China that is mainly related to the operation and regulation of the Chinese government, the main part of the solutions is needed to be conducted by the government and the regulators.

Firstly, in order to solve the problem which is caused by the overvalued of the credit rating just as what has been mentioned above by Seafarer [5], the government need to measure and reform the current structure of the credit rating agencies so as to increase their independence and the efficiency in reflecting the information of the bond issuer in the market so as to decrease the potential risk of the bond investor in the market.

Secondly, as it is mentioned by Zhang and Tong [6], not all of the financial new on the internet are effectively in affecting the bond investors of the market. In fact, based on the empirical result of the research being conducted, the internet financial news affecting the investors behaviors is mainly related to the timeliness of the news and the ownership of the enterprise mentioned in the news where the investors has shown great sensitivity to the enterprise without government background since they could not acquire the implicit guarantee and effective support from the government compared with the state-owned enterprise [10]. In this case, the market information efficiency could be greatly improved by using the internet financial news and formulating new regulatory rules to improve the

management of the bond market so as to decrease the overreacting behaviors of the investors as a supplement of the CRAs.

Thirdly, as the sustainable development goals are now being required in the development of the world where the government is playing main role of in Chinese economy and the bond market, there are mainly three methods which can be adopted by the government so as to improve the situation of decreasing the carbon risk by using the bond market of China. Firstly, innovation of issuing the blue and green bonds should be promoted by the financial regulators so as to increase the market efficiency of decreasing the carbon risk by issuing bonds. Secondly, regulators can also formulate new policies of imposing allowance to the issuers so as to encourage the use of clean energy. Thirdly, the government can reduce the emission of carbon by using and promoting the advanced technologies in the process of business and production.

5. Conclusion

Above all, bond market of China is an emerging market which has the second largest scale of the outstanding bonds in the world nowadays. The main characteristics of the bond market of China is that it is mainly used to serve the financial needs of the Chinese government and the public sector of the Chinese economy where the main part of the outstanding bond which is 90% of the total market is consisted of the bond that issued by the government or related organizations. What's more, under the current governance system of China, the government is still very powerful in affecting the economy where the three main problems caused by the inefficiency of its credit rating systems which are lack of regulations, information inefficiency and the carbon risk could be very hard to be solved by the reform without changing the current structure of the governance system Based on this, in order to solve these problems, it is very important for the government and regulators to formulate new policies based on the changing situation nowadays.

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