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Brief analysis of China's national debt market

Ao Chen[1*], Qi Guo[2], Jingjing Liang[3]
[1] SILC Business School, Shanghai University, Shanghai, China
[2] SILC Business School, Shanghai University, Shanghai, China
[3] SILC Business School, Shanghai University, Shanghai, China
[*] Ao Chen, E-mail: ca_cuchulainn@163.com

Abstract
The national debt market is an important part of a country's securities market and an important juncture of the government's fiscal policy and monetary policy. China's national debt market has experienced a tortuous process from the initial appearance of "Zhaoxin Stock" during the Sino-Japanese War, to its formal start after the founding of New China, to maturity after the reform and opening up, and finally to the present splendor. Review of Chinese bond market characteristics in different historical stage of development, system combing its development context, the brief analysis of China's national debt market scale, issuers, the subject, investment risks involved in trading, pricing method, the role of the portfolio management, find out the present stage of problems existing in the bond market development, based on this, this paper forecasts the growing trend of China's government bond market from the following aspects: establishing and perfecting laws and regulations system of China's government bond market, strengthening supervision, promoting the reform of the pricing mode of savings national debt, and strengthening the unity of different national debt markets.

Keywords
China's national debt market，development and history，brief analysis，problems

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I. Historical evolution

In 1898, in order to pay the reparations for the Sino-Japanese War of 1894-1895, the Qing Government introduced the western financial system for the first time and issued the "Zhaoxin Stock". This is the first domestic debt published in the form of certificate in Chinese history, and it is also the beginning of the history of Chinese national debt. However, due to the cultural environment and social, political, and economic conditions of The Chinese society at that time, coupled with the decadent thoughts of the officials in the Qing Dynasty, the Zhaoxin Stock movement did not achieve the expected results, and the results were little. Then, people's governments around the country have successively issued dozens of different national bonds in the period of the Northern warlord, the Kuomintang of China ruled and the New Democratic revolution.

After the establishment of China in 1949, China's government bond entered the initial stage in the real sense, which can be mainly divided into two stages. From 1950 to 1954, the Chinese government issued about 30.2 billion yuan of "People's Victory discount bonds" to compensate for the huge financial losses caused by the previous war. From 1954 to 1958, the task of social infrastructure construction was heavy, and the loss of capital was huge. In order to make up for the shortage of funds, "national economic construction bonds" were created and raised in five batches. From 1950 to 1960, there were six national bonds issued by the government. Due to the deterioration of China's relations with the former Soviet Union and other factors, China did not re-issue national bonds until 1981, after paying the principal and interest of all previous national bonds in 1968.

Although China's national debt began at the end of the 19th century, it was only after China implemented the reform and opening-up policy in 1978 that it was really accepted and developed rapidly. The national debt issued between 1981 and 1993 did not have the real economic effect of a government bond but were merely a form of fund-raising. In this period, the issuance of national debt was passive and did not have a synchronous relationship with GDP. In 1988, China has carried out the pilot business of the circulation and conversion of national debt in two batches, thus facilitating the birth of the secondary market of Chinese national debt. From 1991, the national debt of China began to adopt the selling form that undertakes to buy underwrite. Around 1992, as it was clear that the government was not allowed to borrow from the central government, national debt became the only means to make up for the financial deficit at that time, and national debt began to enter the stage of positive development. In 1993, China's national debt issuing institutions began to adopt the way of primary dealer and adopted successive years to calculate the interest rate and net price. In 1994, China's central Ministry of Finance first launched the half-year, one-year and two-year national debt, which marked the further diversification of China's national debt maturity varieties, since the national debt ushered in a new turning point. China's national debt has increased significantly. In the 2008 financial crisis, the government launched a stimulus policy of 4 trillion yuan. During this period, the issuance of government bonds helped to increase domestic investment enthusiasm, and the sluggish economy showed a trend of recovery. Since then, China's national debt market tends to be complete, and now has become an important tool of active fiscal policy.

II. The size of the market

The process of the market scale of China's government bond market is tortuous. The problem of national debt originated from the corruption and incompetence of the Qing government in the last years of the Qing Dynasty. For example, during the Sino-Japanese War, "Zhao Xin stock". From this, our country began to issue the history of national debt. Later, in the revolutionary struggle for new socialist democracy led by the CPC (Communist Party of China), in order to support the revolutionary program against imperialism and feudal society, and to help build the political, economic and cultural system of new socialist democracy, the Communist Party of China directly led it, and repeatedly issued national bonds. For example, in 1932, the government issued "revolutionary War short-term bonds" in two phases, and the total amount reached 1.8 million yuan.

The change of the scale of national debt issuance after the founding of China can be separated into two periods: before and after the reform and opening up. The scale of government bond market in these two stages also presents different characteristics.

During the founding of China, after years of revolutionary wars, China's national economy suffered serious damage. The total industrial output value was at a historical low, and the whole country's people were destitute. Therefore, in order to help restore the economy and support the revolutionary fighting that was still going on, the government decided to issue in 1950 a series of discount bonds worth up to 30.2 billion yuan, the ‘People's Victory Discount Bonds’. This was the largest amount of national debt issued by new China at that time.

Then, limited by China's relatively weak industrial economic foundation and poor social and economic conditions at that time, China started the first five-year plan in 1953 to build the national economy and consolidate the foundation of China's industrialization. However, the flourishing scene also produced a great demand for funds, and it was clear that the weak state of our economy at the time did not support this great project. Thus, "national economic construction bonds" came into being. It has a total of five batches with a total value of 3.564 billion yuan. However, after successfully entering the right track, China's national debt market soon fell into "trouble". At that time, due to the rapid deterioration of Sino-Soviet relations, China was forced to pay off all the principal and interest of the national debt in 1968. For the next two decades, the Chinese government issued no bonds.

Until after the 3rd plenary session of the 11th central committee, in order to cooperate with the great policy of reform and opening up, at the same time, in order to adapt to the new trend of development of socialist economy, our country of hair period over more than 20 years of government bonds, beginning in 1981 to issue bonds, starting from this point, our country national debt began to gradually expand the scale.

However, at the beginning of the resumption of the issuance of national debt, national debt had a passive color, which was only active in China as a tool to make up the budget deficit and balance the fiscal revenue and expenditure. The national debt market in this period was characterized by small amount and slow growth. In 1983 and 1984, the actual issuance amount of National debt was ¥ 4.158 billion and ¥ 4.253 billion respectively. In 1985, the amount of government bond program issuance increased from 4 billion yuan to 6 billion yuan. This continued until 1986. The conference on government bond issuance held in the province that year established the concept of "government bond issuance should be carried on for a long time", which also symbolized the profound understanding of the importance of national debt by the Chinese people at that time. The fund raising and other functions of national debt were gradually accepted by the public. As a result, the size of the national debt has expanded rapidly. China's stock of government bonds and total annual issuance increased from 51.3 billion yuan and 18.9 billion yuan in 1988 to 20.69 trillion yuan and 7.12 trillion yuan in 2020.

In short, since 1998, with a large number of deficit government bonds and increasing government bonds intertwined, China's government bond issuance has rapidly expanded, and the important role of government bonds in the national economy is increasing day by day.

III. Issuing entity and trading entity

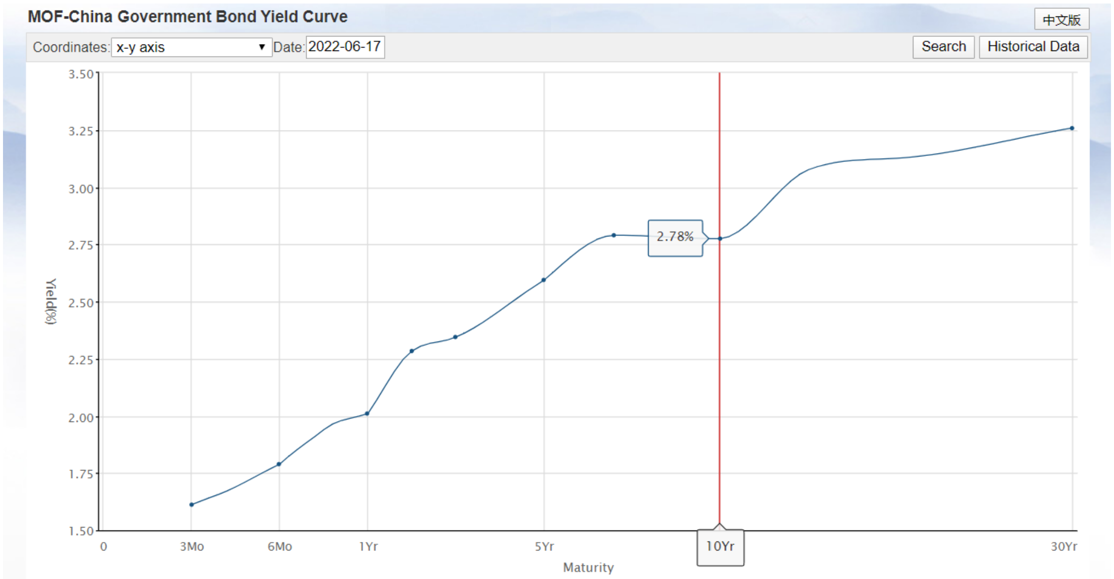
National debt is the government to its credit as the basis, in accordance with the general principle of debt, namely through raising funds from the public debt or debt contract. National debt is the financial debt that the central government guarantees to pay the interest rate or the principal when it is due, so the market subject of issuing national debt should also be the government. And the national debt that our country issues at present, include these 3 kinds roughly: non-registered national debt, certificate type national debt and record type national debt. At present, China's national debt market consists of the primary issuing market, the secondary trading market and the corresponding risk management market. However, the government bond is now regarded as one of the safest financing channels in China, as the important core of interest rate issuance remains the central government. Hence, there are many participants in China's national debt market. China's government bond market is mainly divided into the Floor Trading Market and the Over-the-counter Market, while the participants are different for different markets. Trading in the former is concentrated on the Shanghai and Shenzhen Stock Exchange, the participants involves non-bank financial institutions, corporations and individual investors. The latter deals mainly in the interbank bond market, insurance companies, commercial banks, securities companies and other financial & non-financial institutional investors are all the participants of the OTC Market.

IV. The investment risks that government bonds may involve

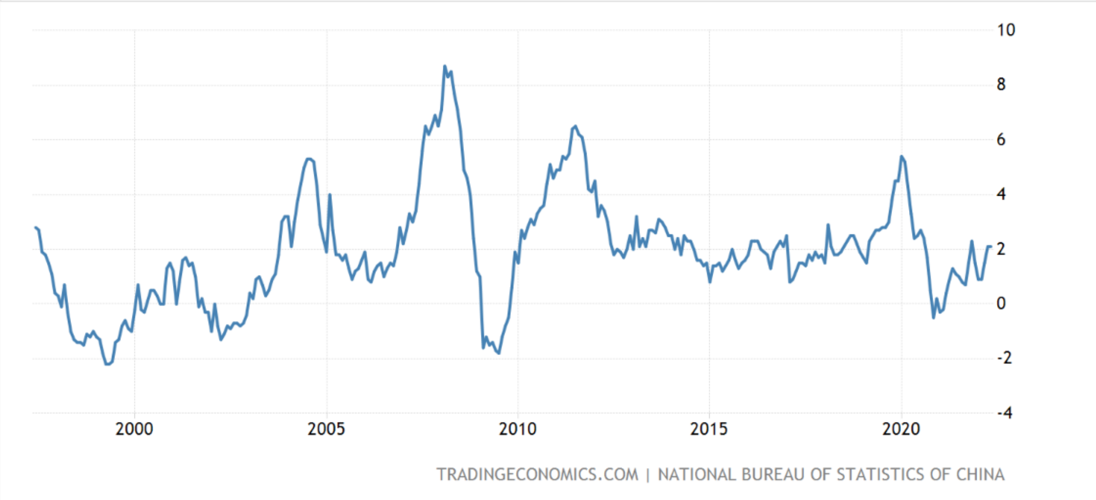
According to the definition of the World Bank and the International Monetary Fund, the possible risks of national debt mainly contain market risk, liquidity risk, credit risk, settlement risk, refinancing risk and operational risk. Therefore, the following will introduce the possible risks of China's national debt in combination with China's national conditions one by one.

4.1 Market risk

Interest rate, exchange rate and inflation are the main factors affecting the risk of national debt market. From an inflation perspective, the real benefit for investors is the nominal rate of return multiplied by inflation. As an asset with medium and low operating risk and return, Chinese bond has a relatively low return rate compared with other financial instruments. According to Data from June (Chart 1), the yield on the 10-year government bonds that are the most liquid bonds is 2.78%. However, China's inflation rate (Figure 2) fluctuated around 2% in the past two years, so if the inflation rate suddenly rises, the real return on national bonds will be affected.



Source: Ministry of Finance, PRC (Figure 1)



Source: Trading Economics (Chart 2)

At the same time, the increase of inflation rate will also bring the corresponding interest rate risk, resulting in the price volatility of the bond market. The most typical example is after China's accession to the WTO in 2002, the country's export-oriented strategy led to the rapid growth of CPI inflation. In order to control the risk of inflation, the People's Bank of China has tightened monetary policy, encouraging financial market yields to continue to rise. However, rising interest rates mean higher discount rates and a corresponding fall in the price of government bonds. Although the benchmark rate increase will also lead to higher coupon rates on existing government bonds, investors will still be able to earn more. But the two factors seem to offset each other, and it remains unclear whether specific investors will end up with higher or lower returns. In addition, if the national debt is mainly issued in the international financial market, the market risk of national debt may also be affected by international exchange rate fluctuations. When the debtor country's currency depreciates, debt repayments in local currency will increase, increasing the risk in the government bond market. Therefore, to sum up, inflation rate, interest rate and exchange rate fluctuations will bring increased risks in the government bond market.

4.2 Liquidity risk

The liquidity of national debt is one of the main indicators of the soundness of the national debt trading market, which is mainly reflected in the timeliness of the transaction, the transaction price (whether the transaction can be completed with a small price difference), the total volume of the transaction and the elasticity (the degree of the value returning to equilibrium after breaking away from the equilibrium level). Liquidity risk in China is mainly caused by the following two reasons. Firstly, the maturity structure of national debt is unreasonable. At present, there are seven types of maturities of China's national debt, ranging from a minimum of three months to a maximum of 30 years. When debt service is concentrated over the same period of time, the huge flow of spending cash creates liquidity risk. At the same time, the development of the liquidity of the national debt market is restricted to some extent because the structure of fewer national debt varieties is difficult to satisfy the needs of investors. Secondly, because of China's two independent escrow settlement systems, their independent fund accounts make cross-market transactions difficult. At present, China's national debt market includes two systems, central Government Debt Registration and Clearing Co., LTD and National Securities Registration and Clearing Co., LTD. However, they are under the supervision of different government agencies, there is a certain competition relationship. As a result, they do not form a unified capital settlement account, and investors tend to focus on one APP for investment operations, so the liquidity of China's secondary market is limited to a certain extent.

4.3 Credit risk

Credit risk is mainly due to the political and economic instability, the government can not bear the repayment of the principal and interest of the maturity of the national debt and constitute a default behavior, finally causing investors to suffer economic losses. At present in the world, the existence of national debt credit crisis is mainly concentrated in Europe, such as Greece, Argentina and Brazil. Due to China's relatively stable politics and steady economic development, the credit risk of National debt in China is relatively close to zero, and it is recognized as the safest financial investment product.

4.4 Refinancing risk

Refinancing risk refers to the use of new debt issued at the maturity of the company to raise part of the capital to pay the old debt due. When new bonds are issued, changes in the economic environment lead to higher yields, and the increased cost of this part will bring refinancing risks. Since this situation is mainly concentrated in the local government bond market, I won't go into details here.

4.5 Operational risk and settlement risk

Settlement risk means the risk of loss caused by structural settlement failure that the government may face or failure to successfully settle the contract when it expires as a counterparty. Famously, in the 1970s, Herstadt received orders from the German government to settle accounts but was unable to pay in dollars. Operational risk signifies the risk caused by errors in the transaction process, unreasonable or illegal intrusion of system maintenance, natural disasters and other extreme situations. Operational risks exist objectively and need to be avoided through the gradual improvement of the government bond market system.

V. Pricing methods

At present, the national debt of the whole world roughly includes book-keeping national debt and deposit-type national debt. Book-keeping national debt generally refers to the national debt investment issued by financial institutions of small and medium-sized enterprises such as enterprises and securities, while deposit-type national debt investment is the national debt investment issued by ordinary urban and rural residents. There are also different pricing methods for the interest rates of the second-class government bonds. Among them, the interest rate of savings government bonds is determined by the benchmark interest rate of the People's Bank of China in the corresponding period and then multiplied by an artificially set interest rate spread. Since the spread can be adjusted artificially, savings government bonds are not market-based pricing at present. The main purpose of its existence is to give residents a risk-free investment channel from the national level, which belongs to the welfare national debt.

Book-keeping type national debt is the national debt with full market pricing. In short, all the bidding rates of national debt are offered by the national debt underwriting syndicate through competitive bidding. The underwriting syndicate is established by the Ministry of Finance every three years, and its members are generally large commercial banks or large securities firms.

VI. The role of National debt in portfolio management

6.1 Share investment risks

Since the establishment of national debt insurance system, national debt has always been an important way for the state to raise financial funds, and to control the market financing scale and capital interest rate. As a means of investment with government credit endorsement, it can be foreseen that it is very low risk in exchange for stable income. In the fixed income securities market, national debt often becomes a tool for investors to share investment risks, and plays an important role in investors' investment process.

6.2 Serve as security certificate

In market transactions, national debts can often serve as a guarantee for non-cash payments, which can meet the needs of various organizations, institutions and individuals. In addition, government bonds can occasionally be used as government-guaranteed business credit, with tax-free status.

In most countries, investors who buy government bonds enjoy more tax breaks than those who buy other yielding securities. In November 1999, China introduced a 20 percent tax on interest. However, various bond transactions are still tax-free.

VII. Problems existing in China's national debt market

In the past 40 years since China resumed issuing national debt in 1981, China's national debt market has made great progress, the overall framework of the national debt market is gradually stable, and the management is becoming more mature. However, some problems have emerged from the boom. First of all, the pricing method of national debt interest rate is unreasonable. At present, the pricing of savings bonds, the main part of China's national debt, is still fixed interest rate, mainly referring to the benchmark interest rate of the People's Bank of China with the same period. However, in the context of the highly developed socialist market economy and interest rate liberalization, it seems to be incompatible. Secondly, China's national debt circulation market is in a state of fragmentation. The current government bond trading market can generally include the interbank market and the floor trading market, such as the Shanghai and Shenzhen Stock Exchange. This split state leads to differences in clearing methods and trading rules between different markets, which affects the liquidity of national bonds and increases transaction costs. Besides, the supervision and management of current national debt trading market is not very sound. government bond trading market is not a special government supervision department, it is supervised and managed by the Ministry of Finance, the People's Bank of China, China Securities Regulatory Commission, banking Supervision Commission, China Insurance Regulatory Commission and other government departments. This will not make the management more rigorous and in place, on the contrary, due to the numerous management agencies will result in unclear management decentralization, decentralization of power. In addition, there are very few regulations about our national debt trading market. For example, the Regulations of the People's Republic of China on the Management of government bonds, the Regulations on the Management of Investment and Development of Special government bonds, and the Interim Measures of the People's Republic of China on the Supervision and Management of the First Dealer of government bonds are all government regulations rather than laws, and the provisions on the investment and development of government bonds and trading market are relatively weak and mandatory. Finally, the term structure of the current national debt investment and development market has also appeared problems, short-term national debt issuance investment and long-term national debt issuance investment account for a small proportion, medium term national debt accounted for a larger proportion. This affects the open market efficiency of China's national debt market, and increases the pressure on the government to repay the principal and interest, and increases the yield of medium-term national debt.

VIII. Suggestions

In view of the above-mentioned problems existing in China's national debt market, the following suggestions are put forward.

First, establish and improve the legal and regulatory system of China's national debt market and strengthen supervision. National debt, as a measure to regulate the economy, is guaranteed by the credit of national finance. Therefore, only through legislation, the country can establish this sense of credit in the hearts of the people, so that the buyers and transferers of national debt at home and abroad are willing to participate in the transaction of national debt. In order to ensure the healthy development of the national debt market, our government must learn from the experience and lessons of foreign countries, intensify efforts to perfect the laws and regulations of the national debt market as soon as possible, issue the National debt Law, and make detailed provisions on some basic issues of national debt.

Second, promote the reform of the pricing method of savings bonds. Because China's savings bonds adopt fixed interest rate, so it is easy to be affected by inflation, in recent years, savings bonds are either hot or unsalable. Therefore, in the context of interest rate liberalization, it is particularly important to promote the marketization of savings government bond pricing.

Third, strengthen the integration of different bond markets. We should promote the gradual integration of markets so as to reduce the large price differences between the two markets, thus establishing a rational system of financial market prices and, ultimately, reducing the speculation caused by institutional factors.

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