

The Relationship Between Bonds and the Current Economy

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Abstract: Since 2020, the outbreak of COVID-19 has had a huge impact on the global economy. In fact, as early as the outbreak of the financial crisis in 2008, it has deeply revealed the complexity of the macroeconomic system, the systemic importance of the financial sector and its high sensitivity to economic exogenous shocks. As an important part of the financial market, bond has a very important impact on the current economic development. Through the study of the current world economy, this paper finds that the epidemic is an unexpected event that changes the world power, the world pattern and the world economic relations, and will bring a profound impact on the world economy. Perhaps the most important change, pre - and post-pandemic, is that the challenges facing humanity will be even greater. The economic growth of developed economies is also unstable due to the impact of the epidemic. The growth of developing countries and emerging economies is more unstable, the risk of inflation and deflation will alternate, and the debt and financial risks are increasing. The risk of supply chain restructuring and supply chain relinking will alternate. A bond market is a place where the government can raise funds in a credit way to balance fiscal revenues and expenditures, which can play a role in promoting economic development. However, the excessive development of the bond market has a negative impact on economic growth and even poses a threat to economic stability. In this regard, this paper puts forward suggestions from the government, enterprise decision-makers and investors to promote the healthy development of the economy.

Keywords: bond, risk, market, the current economy

1. Introduction

Since 2020, the outbreak of COVID-19 has had a huge impact on the global economy. In fact, as early as the outbreak of the financial crisis in 2008, it has deeply revealed the complexity of the macroeconomic system, the systemic importance of the financial sector and its high sensitivity to economic exogenous shocks. The cross-sectoral transmission of risk has become a key dimension affecting financial stability, and the realization of financial stability has also become the common goal of the cooperation of many macro-management departments. Based on this, the relationship between bonds and the current economy has become the focus of research at home and abroad. The risk premium is regarded as one of the important variables affecting bond stability and has been included in the macro-prudential and risk early warning system. This paper argues that the micro-driving factors behind the risk premium are closely related to macroeconomic preconditions. On the

one hand, in the context of incomplete information, the bond market's main body behavior is limited cognitive and not entirely rational, investors in the face of limited and complex information, risk identification ability is insufficient, affected by the financial markets "flock effect", investors easily evolved into individual behavior, group behavior which is the key to the accumulation of the debt risk of endogenous factors; On the other hand, high leverage does not mean high risk if the behavior of leveraging is controlled by the internal demand of the real economy.

Therefore, this paper believes that when studying the influence of leverage ratio on bond risk, the change in the macroeconomic environment will affect investors' decisions and behavior changes. Moreover, in the context of great changes in the current world economic pattern, studying the relationship between the current economy and bonds can sort out the mechanism of action between the two and explore the volatility of bonds. The research can provide reference for investors' decision-making and lay a foundation for government policy and corporate strategy research.

2. Literature Review

Since the outbreak of the financial crisis in 2008, countries have gradually realized the positive role of bonds in stabilizing the national economy, and have formulated policies to expand the scale of bond issuance. The theoretical circle also began to attach importance to the study of the influence between macroeconomic factors and bonds [6]. These factors mainly include GDP, interest rate, inflation rate, loans of financial institutions, amount of national debt issued, the growth rate of fixed asset investment, balance of household savings deposit, amount of stock raised, and a number of bonds listed at the end of the year [7].

David and John used the price of British government bonds provided by the Bank of England from 1985 to 1995 to form its yield curve as the basis for analysis [1]. By using econometric tools and regression analysis, they drew the following conclusions: there is a linear relationship between interest rate, inflation rate and bond price. Interest rates are negatively correlated with bond prices, while inflation is positively correlated with bond prices.

Christophe and Anil believed that Japan relaxed financial regulation in the 1980s, which provided a good opportunity for Japanese enterprises to reshape their capital structure, and it was also a good time to study how Japanese enterprises chose bonds and loans [2]. The author selects data samples of relevant variables in the 1980s, and finds that the structure of debt is related to the agency cost of bonds, while there is a negative correlation between corporate bonds and bank loans.

Jinwoo and Catherine used the VAR model and relevant data from 1967 to 1988 in the United States to test the impact of interest rate, stock market return rate and capital consumption on stock and bond issuance [3]. The results show that the increase in stock market rate of return will lead to an increase in stock circulation in the same direction. Lower interest rates will increase bond issuance; Capital expenditure has no effect on bond issuance in the long run; In the short run, higher bond issuance tends to reverse stock issuance.

Based on the real option theory, Bemanke and Blinder believe that under the condition of adjustment cost (irreversible investment), investment opportunity can be regarded as an option for enterprises [4]. The increase of economic policy uncertainty may increase the value of options and the marginal investment cost of enterprises, thus inhibiting the investment of enterprises.

Chen selected macroeconomic data and corporate bond issuance from 1991 to 2003 as variables, and through multiple regression and factor principal component analysis, obtained the five variables of loans of financial institutions, bond issuance, economic growth rate, national savings rate and inflation rate from the perspective of a linear relationship [5]. It is not the key factor affecting the issuance of corporate bonds, and there is a high negative correlation between the issuance scale of corporate bonds and the issuance of stocks.

3. The Current Economy Is Not Optimistic

First, the world economy will be divided into pre-pandemic and post-pandemic. The epidemic is an unexpected event that has changed world power, world pattern and world economic relations, and will have a far-reaching impact on the world economy. Perhaps the most important change, pre- and post-pandemic, is that the challenges facing humanity will be even greater. For example, the public health risks have risen sharply, with more than 240 million confirmed cases and nearly 5 million deaths worldwide, and the epidemic is far from over. In the future, we will not only have to fight against viruses like COVID-19, but also invisible viruses, public health disasters and malignant infectious diseases in the future. The common life-threatening health problems facing mankind will pose great challenges to both the present and the future.

Second, uncertainties, imbalances and instability in the world economy have suddenly increased. Last year, the global economy grew by 3.3%, the US by 3.5%, and China, the only economy with positive growth, grew by 2.3%. At the beginning of the year, the IMF, The World Bank, the OECD and others all had optimistic forecasts, and the US was the most optimistic, with 6.5 percent growth, the highest level in 50 years. But as soon as something happens -- the economy, the pandemic, the withdrawal of troops from Afghanistan -- growth will be immediately downgraded. Now the Fed's forecasts are the gloomiest, and it has set America's growth rate below 5%. The Atlanta Fed's third-quarter forecast for the US is even 0.2%, so growth in developed economies is erratic. Growth in developing and emerging economies is more volatile. On the one hand, it is affected by the epidemic; on the other hand, it is affected by the appreciation and depreciation of the DOLLAR, the flood of liquidity and the liquidity crunch. They are the victims of a liquidity glut and the harvesters of a liquidity crunch. Therefore, the world economic recovery will become more unstable, uncertain and uneven.

Third, the risks of inflation and deflation alternate. What we are seeing is inflation risk, but that inflation risk is caused by excess liquidity. The Fed has clearly signaled that it will tighten monetary policy in the fourth quarter of this year or next year. The Fed's balance sheet will shrink, which will lead to lower commodity prices, which will feed through to CPI, which will lead to another round of deflation. So inflation and deflation alternate. This is also a worldwide problem.

Fourth, debt and financial risks are increasing. Global debt in 2021: A Brief Analysis of Global Debt and THE DYNAMICS of the US Economy in 2021 IIF data indicates that global debt increased by us \$24 trillion in 2020, reaching a cumulative US \$281 trillion. Global government debt is expected to reach \$92 trillion by the end of 2021. The United States, Germany, France, Japan and other countries now have negative interest rates, low interest rates, and zero interest rates. Negative yields on global government bonds continue to grow, reaching \$19 trillion by 2020. The \$19 trillion in long-term debt has negative interest rates in many countries and zero in some. Negative interest rate, zero interest rate, low yield and negative yield of long-term Treasury bonds have lost their original significance, and brought great uncertainty to the world economy. In the past, some countries could use debt to overdraw in the future to solve the current economic problems, but now they have run out of ammunition. They are in the process of solving international problems, and their ability to use ultra-loose monetary and fiscal policies to stimulate the economy is greatly reduced. This not only refers to the United States, but also includes the European Union, Japan and China. Although China's debt is generally under control, and government debt is below the 60% warning line, corporate debt, individual debt and local government debt are also on the rise. Some enterprises have been operating with high responsibility for a long time, and their ability to withstand risks is weak. Therefore, financial and debt risks are considerable.

Fifth, the risk of supply chain disruption. The risk of supply chain restructuring and supply chain relinking will alternate. There are two main factors in a broken supply chain. One is the natural circuit

breaker caused by the epidemic, the other is the artificial blockade promoted by politicians in some countries. Biden has had three meetings at the White House so far this year, and the idea of a reconfiguration of supply chains by like-minded countries strikes me as fanciful. The global supply chain is not formed according to values, but is a transnational market demand relationship, the result of matching demand and supply, and a natural long-term matching process, rather than relying on government forces.

4. Bonds Are Driving the Current Economy

First, the bond market is a place where the government can raise money on credit to balance its budget. It is recognized by all countries in the world that issuing national debt is the best way to make up for fiscal deficit. National debt, as the "gilt bond" with the highest credit in the market, is generally favored by investors. The government can easily raise the funds needed for basic construction, with high security and low risk, and can guarantee investors a certain rate of return. At the same time, bonds are also an important place for companies to raise funds. The vast majority of m&a activity in the world today is financed largely by the corporate bond market. For companies, issuing bonds can raise money at a lower cost (compared with bank borrowing and equity), with fewer restrictions and flexibility to use, and can help boost the reputation of the issuer. In addition to the two main bond issuers mentioned above, local governments, government agencies and financial institutions can issue bonds in their own names to raise the required funds or supplement capital, making full use of the financing function of the bond market.

Secondly, the bond market has the function of optimizing resource allocation. Any country's economy is around the savings investment mutual conversion mechanism to run. The bond market has a high yield and improves the financial information of the company, because its economic benefit is good, promising and attract plenty of development funds, and poor economic benefit and prospects of the company are unsustainable for attracting less than money, gradually decline, die or be good company mergers and acquisitions, Funds in the market flow spontaneously from poor companies to excellent companies, achieving the optimal allocation of resources. At the same time, the bond market not only provides investors and financiers with rich investment and financing channels, but also provides a channel to disperse risks. Capital demanders raise funds by issuing bonds to partially transfer and disperse their operational risks to investors. Investors can sell high-risk bonds and buy low-risk bonds to establish investment portfolios and disperse funds into bonds of different types, maturities and risks, so as to achieve the purpose of reducing risks. In addition, the liquidity created by the bond market solves the worries of investors, who can sell their bonds at any time when they need to exchange for cash. Compared with the special high risk of the stock market, the risk of the bond market is relatively low. The addition of bonds in the portfolio can play a role in suppressing risks. If a country does not have a developed bond market, its ability to resist risks will be weakened a lot.

Finally, the bond market can facilitate the liberalization of interest rates. The marketization of bond interest rates is an important part of the marketization of interest rates in the whole society. The interest of treasury bills is often referred to as the risk-free interest rate in the market because of its extremely high credit. The interest rate of other securities is based on the risk-free interest rate plus the risk premium. Adjusting the interest rate of treasury bills can lead to changes in the prices of most financial assets in the market, which are then transmitted to other markets, causing changes in the supply and demand relationship in other markets. The high and low trend of bond repurchase rates reflects the policy intentions of market managers, and triggers a new round of bond issuance rate changes, affecting investors' choices between the bond market and other markets.

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5. Overgrowth in the Bond Market Is Hampering the Current Economy

Bond is the most important part of the whole economic system (citation), its development on the impact on national economic growth can not be ignored. A mature bond market can not only provide funds for the development of national economy, but also support the stable and healthy operation of a country's economy as the most important macro-control platform. However, a mature bond market does not mean that the larger the market development scale is, the better or the faster the market innovation speed is, but it needs to examine whether the scale, structure and system of the bond market form "adaptive development" with the national economy from the overall and global situation of the national economy. Under the condition that the relevant conditions are not mature, blindly pursuing scale development and institutional innovation may cause the "excessive development" of the bond market, which will have a negative impact on the economic growth, and even pose a threat to the economic stability.

On the one hand, the excessive development of bond market is manifested as an improper expansion of market scale. Taking the national debt market as an example, the national debt has both positive and negative effects on economic development, and economic development is closely related to the scale of national debt. When the scale of national debt exceeds a certain limit, it will bring many adverse effects on the economic operation of a country, and even hinder economic development. For example, under the condition that the total social fund is certain, if the scale of government bonds issued is too large, the money supply effect of national bonds will make the proportion of state-owned assets in the total social assets become larger, and banks have to shrink the amount of credit, thus resulting in the "crowding out effect" of national bonds. At the same time, the issuance of national debt often leads to the expansion of consumption demand and investment demand, and may also lead to the expansion of money supply, while the excessive expansion of aggregate demand and excessive money supply are the two basic causes of "inflation". In addition, bonds are issued to investors when the government, financial institutions, industrial and commercial enterprises and other institutions borrow money directly from the society, and they promise to pay interest at a certain interest rate and repay the principal under agreed conditions. Their issuance is conditional on repayment of principal and interest within a certain time limit. And the issuance of national debt needs to bear capacity with the national economy as a standard. When the debt burden of a country exceeds this standard, it will in turn put pressure on the operation of the national economy, and even bring about a debt crisis. Generally, the ratio of the balance of national debt to GDP in a certain period is regarded as "national debt burden ratio" internationally. This index focuses on the stock of national debt, reflects the ability of the entire national economy to bear national debt, and is an important basis for research on controlling debt problems and preventing debt crises. The internationally recognized debt burden limit is no more than 60 percent for developed countries and 45 percent for developing countries. On the other hand, the "over-development" of the market shows that the market products and mechanism innovation are too advanced. One of the most important reasons for the SUBPRIME crisis in the United States in 2008 lies in the financial risks caused by excessive innovation in the securities market when financial supervision and market system are not perfect.

6. Conclusion

Based on research on the relationship between bonds and the current economy, this paper finds that

the higher the uncertainty of economic policy, the greater the probability of default on credit bonds. When economic policy is uncertain, the company's access to bank loans, the size of new bonds, and the cash flow from net financing activities all drop sharply. The company's operating performance has fallen sharply, resulting in a decline in the solvency of the company and an increase in the probability of bond default. From the perspective of the government, on the one hand, the government should try to maintain the stability of economic policies, so as to maintain the stability of the external environment of enterprises and reduce the possibility of bond default; on the other hand, the government should build a more developed external financing market to provide enterprises with more Multiple financing channels and funding sources. From the perspective of corporate decision makers, on the one hand, companies should enhance their ability to perceive and respond to economic policy uncertainty, and in the event of economic uncertainty, they should hold more cash to cope with possible debt repayment pressures. On the other hand, enterprises should also do a good job in building a risk management system to enhance their ability to resist risks. From the perspective of investors, when the uncertainty of economic policies increases, more attention should be paid to the potential default of credit bonds, especially for enterprises with weak risk tolerance and poor external financing environment, it is reasonable to adjust investment portfolios. To sum up, the research can provide reference for investors' decision-making and lay a foundation for government policy and corporate strategy research

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References

- [1] David Barr G, John Gallo G, Peggy E. Swanson. 1998. "The Relationship between International Bond Markets and International Stock Markets." *International Review of Financial Analysis*, 7 (2):181-190.
- [2] Christopher W, Anderson Anil K. 1999. "Makhija, Deregulation, Disintermediation and Agency Costs of Debt: Fevidence From Japan." *Journal of Financial Economics*, 51 (2) :309-339.
- [3] Jinwoo Park, Catherine Shenoy. 2002. "An Examination of the Dynamic Behavior of Aggregate Bond and Stock issues." *International Review of Economics and Finance*, 11 (1) :2175-189.
- [4] Bemanke B S, Blinder A S. 2016. "The Federal Funds Rate and the Channels of Monetary Transmission" *The American Economic Review*, 82 (4) :901-921.
- [5] Chen D. 2012. "Classified Boards, the Cost of Debt, and Finn Performance." *Journal of Banking & Finance*, 36 (12):3346-3365.
- [6] Chen L, D A Lesmond, and J Wei. 2007. "Corporate Yield Spreads and Bond Liquidity." *Tiae Journal of Finance*, 62(1):119-149.
- [7] Chen T, H Liao, and H Kuo. 2013. "internal Liquidity Risk, Financial Bullwhip Effects, and Corporate Bond Yield Spreads; Supply Chain Perspeedvea." *Journal of Banking&Finance*, 37(7):2434-2456.