Moral Hazards in China from the Perspective of the Corporate Bond Market

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Summary

1. Market mechanisms have long been dysfunctional in the Chinese corporate bond market, in the sense that there is rigid compliance with principal redemption and interest payments, regardless of the issue selected for investment. This is because the Chinese government has guaranteed the debts of state-owned enterprises and prevented defaults.

2. Government guarantees have distorted the financing structure of state-owned enterprises and caused the corporate debt problem to become more serious. Despite the fact that private enterprises are managed more efficiently than state-owned enterprises, government guarantees allow state-owned enterprises to procure finance at a lower cost. This situation has created a moral hazard, since state-owned enterprises can easily accumulate debt in excess of their repayment capacity, while lenders tend to be lax when checking corporate financial positions. There are similar problems with bank lending, and government subsidies are also distorting market mechanisms.

3. Recently the Chinese government has started to shift to a policy of allowing defaults, and the number of corporate bond defaults has risen rapidly since the start of 2016. Given the government's stance of allowing defaults, as well as a harsh macroeconomic environment, there is a strong possibility that bond defaults will continue to increase in the future. Of course, the level of leverage in China has already risen to the danger level from a macro perspective, and we cannot rule out the possibility that the authorities will return to stance of preventing defaults out of fear of panic deleveraging.

Introduction

Massive corporate debt and non-performing loans have become the biggest risk factors affecting China's ability to maintain stable economic growth. The ratio of corporate debt to GDP now exceeds that of Japan during the bubble period, and leverage has reached the danger level when viewed from a macro perspective. If real estate prices fall in this environment, financial institutions will suffer major losses due to the erosion of collateral values. There would be a rapid increase in financial institution collapses, bringing with it the risk of a financial crisis.

Why have corporate debt and non-performing loans expanded to this extent? First, there are issues relating to enterprises. The author has published three articles examining the problem of excessive debt in China. The first in the series was Genkai ni Mukau Chugoku no Kigyo Saimu Kakudai-Baburu-Ki no Nihon to Nita Yoso [Corporate Debt in China Approaching the Limit of Expansion—Similarities with Japan's Bubble Period]. Published in RIM in 2015, this article compares China's ratios of nonfinancial corporate debt and fixed capital formation to GDP with those of Japan during the bubble period. Based on this comparison, the article suggests that China's ballooning corporate debt is largely attributable to the use of wealth management products. The article also provides several case studies showing that while in Japan the main targets for wealth management products were real estate and shares, in China wealth management has typically been based on entrusted loans, which are a typical form of shadow banking.

In the same year, the author published the second article in the series, *Baransu Shito Fukyo no Iriguchi ni Tatsu Chugoku Keizai* [The Chinese Economy on the Brink of a Balance Sheet Recession]. Using the capital procurement accounts of non-financial enterprises in the National Accounts, the article shows that while excessive capital expenditure in response to the four trillion yuan stimulus package introduced after the 2008 global financial crisis was partly responsible for the increase in debt, the main reason was the increased use of wealth management products. The article also highlights three more issues. First, worsening economic performance in 2015 led to a string of defaults on entrusted loans and other instruments, triggering a downward trend in corporate assets and leaving them with a massive burden of debt raised through bank loans and bond issues. Second, heavy interest payment burdens forced companies to give priority to debt repayment at a time of increasing deflationary pressure. Third, the Chinese economy now faced the same risk as Japan in the 1990s, when the economy went into a deep recession due to a slump in the demand for funds as business corporations struggled to cope with excessive debt.

Published in 2016, the third RIM article in the series was Chugoku de Shinkokuka Suru Kajo Saimu Mondai— Senzai Furyo Saiken Hiritsu to Furvo Saiken Kibo no Suikei [The Growing Problem of Excessive Debt in China- Estimating the Implied Non-Performing Loan Ratio and the Amount of Bad Loans]. The article focused on the role of financial institutions, especially stateowned banks, in the NPL problem. Specifically, it identified the failure of financial institutions to take business profitability into account as a major reason for the expansion of corporate debt. The article also assessed the stability of the Chinese financial system by means of an independent estimate of the potential NPL ratio based on financial data for over 2,000 listed companies. This indicated that the ratio at the end of 2015 was 8.6%. If we apply this ratio to the total amount of credit in China, including shadow banking, potential NPLs at the end of 2015 amounted to 12.5 trillion yuan. This is ten times higher than the official figure and is equivalent to 18.5% of GDP. Based on the huge amount of potential NPLs, the article concluded that the risk of a crisis situation in the Chinese financial system could not be ruled out.

This article is the next in this series. It was written to show that government actions have played a significant role in the accumulation of massive corporate debt and NPLs. Whether explicitly or tacitly, the Chinese government provides de factor guarantees for the debts of SOEs. This government intervention in the market has created serious moral hazards for both borrowers and lenders. Guarantees provided by both the central and local governments have weakened the awareness of borrowers and caused lenders to become lax in their screening of companies' financial positions.

This article focuses on the corporate bond market because this approach makes its easier to identify financing costs for individual companies. If we analyze SOEs and private sector companies separately, we can easily identify major differences in financing costs. By looking at the corporate bond market, we can easily see how government intervention has enabled SOEs to obtain finance at an extremely low cost. We can further conclude that this situation has created moral hazards, leading to the accumulation of massive amounts of corporate debt and NPLs.

This article is structured as follows. Part 1 examines the extremely low default rate for corporate bonds in China and shows that market mechanisms are not functioning. Part 2 analyzes the moral hazards caused by government intervention in markets, first by identifying cases in which the government worked to avoid corporate bond defaults, and second by aggregating the yields and ROA of corporate bond issues traded on the Shanghai Stock Exchange to show how government guarantees have kept SOE financing costs low. In Part 2 we will also briefly examine government intervention in other markets through subsidies and other means. Part 3 highlights the dilemma facing the Chinese government.

1. Market Mechanisms Non-Functional in the Corporate Bond Market

(1) Extremely Low Default Rates allow you to experience

There are many areas in which market mechanisms are not functioning in China. One of those areas is the Chinese corporate bond market. One of the issues affecting the Chinese corporate bond market is "rigid payment," ("gangxing duifu" in Chinese). "Duifu" means to honor checks and convertible notes, while "gangxing" means that something is as rigid as steel. For many years, the prevailing situation in the corporate bond market has been that investors can always count on principal redemptions and interest payments, regardless of the instruments in which they invest.

The aggregate number of corporate bond issuers with ratings increased substantially from three at the end of 2005 to 3,739 at the end of 2015. However, the number of companies that defaulted remained at zero until 2013 and reached only four in 2014 and 19 in 2015. If we calculate the default rate based on the number of issuers with ratings, the rate was 0% until 2013 and just 0.51% up to 2015 (Fig. 1). The world default rate, as aggregated by the ratings agency Standard & Poor's, rose from 0.37% in 2007 to 1.80% in 2008 and surged to 4.18% in 2009 as a result of the 2008 global financial crisis. The situation in China appears very anomalous when compared with this trend. China's default rate for 2015 also seems extremely low when compared with the world default rate of 1.36%.



Fig. 1 Corporate Bond Default Ratio

Notes 1: Corporate Bond default ratio = number of issues in default / number of rated issuers Notes 2: The latest figures are for the first 10 months of

^{2016.} Source: Global bond default rates are from *S&P*, 2015 An-

nual Global Corporate Default Study and Rating Transitions. Data for China were compiled by JRI using the Wind Database

(2) Overview of Corporate Bond Market

Generally speaking, corporate bonds are fixedincome debt securities issued by corporations to procure long-term finance. They can be broadly divided into industrial bonds issued by general business corporations, and financial bonds issued by financial institutions. Unlike shares, bonds do not confer voting rights.

This article focuses on enterprise bonds in a Chinese context, as referred to in the Chinese expression *give zhaiquan*. Chinese bonds can be classified into six types: corporate bonds, government bonds, financial bonds, asset-backed securities, central bank bills, and international organization bonds (Table 1)⁽¹⁾. In China, enterprise bonds include corporate debt issues, medium-term notes, super and short-term commercial paper, commercial paper, private placement notes, company bonds, convertible bonds, separable convertible bonds, SME collective bonds, SME collective notes, and SME private placement bonds. A feature of enterprise bonds is that they include not only debt securities with fixed interest rates issued by joint-stock corporations for the purposes of long-term financing, but also debt securities issued by SOEs that are not structured as joint-stock corporations, as well as short-term debt securities such as commercial paper.

In the next section of this article we will look at company bonds through separate analyses focusing on bonds issued by SOEs and private sector companies. Company bonds are fixed-interest debt securities issued by joint-stock and limited companies to raise long-term finance. They are similar in concept to general corporate bonds. The other main type of corporate bond is the enterprise bond. Enterprise bonds are fixed-income securities that can be issued by enterprises that are not structured as joint-stock corporations or limited companies as a way of raising long-term finance. They are mainly issued by SOEs.

According to data released by the People's Bank of China on the balance of social financing, the balance of corporate bond issues has risen sharply, from 3.8 trillion yuan at the end of 2010, to 17.3 trillion yuan at the end of September 2016 (Fig. 2). The ratio to bank lending rose from 8.1%



Fig. 2 Balance of Finance Procured through Corporate Bond Issues

loans. Source: People's Bank of China, *Total Social Financing*

					(100 m	IIIION RIVIB)
	2013		2014		JanSept. 2015	
	New issues	Year-end balance	New issues	Year-end balance	New issues	Balance at 9/30
Corporate bonds	40,384	74,664	51,772	109,421	47,567	130,788
Government bonds	17,963	91,781	20,247	103,075	38,771	132,633
Financial bonds	23,162	112,313	26,572	124,534	24,044	135,819
ABS	1,910	171	2,794	2,689	2,494	4,297
Central bank bills	-	5,522	-	4,282	-	4,282
International organization bonds	-	31	-	31	-	31
Total	83,419	284,482	101,384	344,032	112,876	407,850

Source: Compiled by JRI from An, G., Sun, M., [2015], p.174-176 (original sources: Chinabond, China Securities Depository and Clearing Co., Ltd., Shanghai Clearing House)

to 16.8% over the same period. These figures are indicative of an upsurge of corporate bond issues.

2. Government Efforts to Prevent Defaults

(1) Government Guarantees

One of the reasons for China's extremely low corporate bond default rate is the Chinese government's efforts to prevent defaults by providing extensive support to businesses affected by deteriorating income trends.

According to a Chinese rating agency, China Bond Rating Co., Ltd., under normal circumstances, the first instance of a Chinese corporate bond default would have occurred on April 16, 2012. The issue in question was 11 Dragon CP01, which was issued by listed textile manufacturer Shandong Helon. Shandong Helon had become insolvent due to poor business performance. In addition, revelations of false reporting in the company's financial statements led to growing skepticism in the market about its ability to meet interest payment obligations. Before the maturity date for Shandong Helon's commercial paper, the company was being sued by multiple financial institutions, including the China Everbright Bank, Shenzhen Development Bank, and Export-Import Bank of the Republic of China, over the non-payment of interest on loans from 12 financial institutions. The creditor financial institutions wanted the company's bank deposits to be frozen.

Throughout these events, the municipal government of Weifang City in Shandong Province was making every possible effort to prevent a default. Specifically, the Weifang municipal government proposed a merger with Shandong Chenming Paper Holdings Limited, a major paper and pulp manufacturer, and loom manufacturer China Hi-Tech Group Corporation. The Weifang municipal government also provided collateral, while the Hengfeng Bank, which had offered and sold the bonds, provided a rescue loan. According to China Bond Rating, the commercial paper default was averted through these initiatives.

In Japan, government-guaranteed loans are sometimes raised by organizations such as the Innovation Network Corporation of Japan, which is a public/private investment fund. However, the direct provision of collateral by the government, as happened in this case, would normally be unthinkable in Japan. In this sense, it would be reasonable to conclude that there are specific issues relating to government guarantees in China.

State-owned enterprises in China can be divided into central government SOEs controlled by the national government, and local government SOEs under local government control. Shandong Helon is a local government SOE belonging to Weifang City in Shandong Province. If the company had defaulted on its bonds and then filed for bankruptcy, not only would there have been an employment problem affecting tens of thousands of employees, but the city government would have faced public questioning about its responsibility for the situation. These factors appear to have prompted efforts by the city government to avert the default.

Volume 13 (2014) of the Shanghai stock exchange journal "Securities Law Review" includes an analysis of the legal mechanisms for bond defaults by Wu Weiyang of the China Securities Regulatory Commission. Dr. Wu noted that correction of the relationship between the government and the market had been an important reform theme at the 18th National Congress of the Communist Party of China in November 2012, and that there had been a general understanding that market discipline must be respected. However, in practice various local governments and local regulators are determined not to be the first to allow a corporate bond default in their own jurisdiction.

(2) Curbing Financing Costs

Government guarantees cause distortions in business financing structures and exacerbate busi-



Fig. 3 Average Yields of Company bonds

Notes: The figures represent aggregated face yields on 203 issues by private sector companies and 561 SOE issues that were being traded on the Shanghai Stock Exchange as of December 1, 2016. Source: Compiled by JRI using Wind Database

ness debt problems. SOEs become complacent and tend to take on more debt than they can afford to repay, because they assume that the government will ultimately bail them out if they become unable to meet interest payments. In addition, organizations that provide finance, such as banks and insurance companies, fail to carry out thorough screening of the future potential and repayment capacity of recipients of their loans and investment, since they assume that the government will step in if a company finds itself in financial difficulty.

The reality of the situation is that the existence of government guarantees is creating distortions in the Chinese corporate bond market. Generally speaking, if market mechanisms are functioning, companies with greater management efficiency will have higher credit and lower financing costs. However, the financing costs of Chinese SOEs have been kept low, regardless of their level of management efficiency.

As of December 1, 2016 307 company bond issues by private companies were being traded on the Shanghai Stock Exchange. Complete face yield data and issuer ROA data from 2010 to 2015 were available for 203 of these bond issues. The simple average of the face yield of these 203 bond



Fig. 4 ROA of Issues

issues was 5.8% (Fig. 3), while the simple average of the five-year ROA of the issuer companies concerned was 8.0% (Fig. 4).

As of the same date, 655 SOE company bond issues were being traded on the Shanghai Stock Exchange. Complete face yield data and issuer ROA data for 2010 to 2015 were available for 561 of these bonds. The average face yield for these 561 bonds was 4.2%, while the average five-year ROA was 5.3%. A comparison of these figures shows that private companies have higher ROA ratios but are forced to issue their corporate bonds at a relatively high interest rate.

(3) Various Government Interventions in the Market

SOEs have enjoyed preferential treatment by the Chinese government on various levels. According to Sebastian Mallaby, the Paul A. Volcker Senior Fellow for International Economics at the Council on Foreign Relations, the core of the problem is that "State-owned banks have collected vast pools of savings from long-suffering Chinese households, paying artificially low interest rates on them. They have funneled this cheap capital to politically connected companies, which have duly splurged on investment."⁽²⁾

In fact, private companies have been complaining for some time about the difficulty of obtaining loans and the high cost of borrowing due to excessively high interest rates and fees, while at the same time SOEs have continued to enjoy access to loans at low interest rates. This shows that the existence of government guarantees has also caused distortions in the cost of bankloan.

Central and local government subsidies to SOEs also distort market mechanisms. Government subsidies were originally provided to companies engaged in business that was important in terms of national strategies or industrial policies, or in situations where investment was unlikely to provide adequate returns on investments. However, a lack of clearly defined rules for the provision of subsidies meant that there were cases in which SOEs essentially used government subsidies to cover their losses.

According to its 2015 financial results, automaker Tianjin FAW had net sales of 3,404.27 million yuan, net profit of 18.05 million yuan, and had avoided losses for three consecutive years. However, this was attributable to an increase in government subsidies. Government subsidies, which Tianjin FAW records as "non-operating income," have increased dramatically, from 62.02 million yuan in 2013 and 113.75 million yuan in 2014, to 563.26 million yuan in 2015. In China, listed companies are temporarily delisted if they report losses in three consecutive years, and they are permanently delisted if they fail to show a profit in their next interim financial results. In this sense, government subsidies had the effect of bringing Tianjin FAW back from the brink of death.

Another major issue is that many government subsidies are allocated to companies with strong political influence. One example of this is the oil and gas company PetroChina, which in 2012 recorded a net profit of 115.3 billion yuan, thanks in part to the high oil price that year. In the same year, PetroChina received a subsidy of 9.4 billion yuan from the government, making it the number one recipient of government subsidies. The government paid a huge subsidy to a company that had higher income than the British company BP.

If we aggregate the 2015 financial data for nonfinancial corporations (A-shares) listed on the Shanghai Stock Exchange and Shenzhen Stock Exchange as of December 16, 2016, we find that PetroChina was the biggest recipient of government subsidies (Table 2). Although the oil price decline reduced PetroChina's income in 2015, it still recorded a net profit of 35.7 billion yuan, while also receiving a subsidy of 7.9 billion yuan. Other major subsidy recipients include China Petroleum & Chemical Corporation (Sinopec), and the maritime transportation company COSCO Shipping. In fact eight of the top 10 subsidy recipients are central government SOEs. The total amount of subsidies paid to these top ten companies is equivalent to 22.3% of all subsidies.

				(100 million RMB)
	Company	Industry	Туре	Gov. subsidies
1	PetroChina	Oil recovery	Central gov. SOE	79.1
2	Sinopec	Oil recovery	Central gov. SOE	50.0
3	COSCO	Shipping	Central gov. SOE	42.6
4	China Eastern Airlines	Aviation	Central gov. SOE	41.3
5	SAIC Motor	Automobiles	Regional gov. SOE	31.2
6	JAC Motors	Automobiles	Regional gov. SOE	25.3
7	China Southern Airlines	Aviation	Central gov. SOE	23.7
8	China Yangtze Power	Electric power	Central gov. SOE	20.5
9	China National Nuclear Power	Electric power	Central gov. SOE	19.8
10	China Railway Rolling Stock	Railroad manufacturing	Central gov. SOE	18.0

 Table 2 Top 10 Recipients of Government Subsidies (2015)

Notes: The figures were calculated by aggregating data for non-financial listed companies as of December 16, 2016.

Source: Compiled by JRI using company annual reports and the Wind Database

In addition to this preferential treatment in relation to financing, the government also favors SOEs in other ways, including the provision of factory sites and employee housing, and rent reductions and exemptions.

3. A Dilemma for the Chinese Government

(1) Government Shifting to a Stance of Allowing Defaults

Recently the government has started to shift to a stance of allowing bond defaults. At the 3rd Plenum in November 2013, the Chinese government adopted a policy of introducing market mechanisms into many sectors of the economy. In March 2014, Premier Li Keqiang commented that while defaults on financial instruments were not desirable, in some cases they were unavoidable. The May 9, 2016 issue of People's Daily carried a front page story headed "Conversation among Authorities about the Chinese Economy." This, too, contained statements to the effect that China needed to break away from the "rigid payment" mindset.

The number of defaults has started to increase in this context. In the first 10 months of 2016 there were 51 corporate bond defaults involving 25 companies, which is sharply higher than the total of 22 defaults (19 companies) for the whole of 2015 (Fig. 5).

On September 26, Dongbei Special Steel, a local government SOE in Liaoning Province, defaulted on a 700 million yuan one-year commercial paper issue, which was offered and sold by the China Development Bank and the China Merchants Bank in September 2015 with a face yield of 6.3%. This was the ninth default in 2016 involving bonds issued by Dongbei Special Steel. On October 10, the Dalian Intermediate People's Court accepted a bankruptcy application from a group of creditors.



Fig. 5 Numbers of Defaults

Notes: The latest figures are for the first 10 months of 2016. Source: Compiled by JRI using media reports and the Wind Database

Since the government is highly likely to maintain its stance of allowing defaults to occur, the number of bond defaults can be expected to increase further. The Chinese government is also keenly aware of the need to rectify moral hazards and curb the growth of debt through changes to government guarantees. In addition, as China's rapid economic growth starts to wind down, many SOEs are now struggling to repay their debts. A government takeover of these debts would involve massive fiscal expenditure, dramatically reducing the fiscal resources available. The authorities also appear to be aware that China has reached a stage at which changes are needed in the way government provides guarantees. As noted at the beginning of this article, China's bond default rate is far below the world level because of government guarantees, subsidies, and other factors. However, the default ratio is expected to rise gradually as the scope of government's willingness to allow defaults expands.

Persistently harsh macroeconomic trends are also likely to lead to increased defaults. China's gradual economic slowdown is expected to continue because of unfavorable domestic demand conditions. The biggest brake on the economy is the slowdown in private fixed asset investment, which makes up three-tenths of GDP. Businesses are cautious about new investment because of their excess debt and capacity levels. The ratio of corporate debt to GDP has risen above the level in Japan during the bubble period. Given their debt service burdens and strong pressure to correct balance sheets, businesses are unlikely to end their focus on debt reduction any time soon. With businesses expected to remain reluctant to increase debt, the power of private fixed asset investment as an economic driver is likely to weaken.

Structural adjustments in the business sector are also likely to curb private consumption expenditure. Since local governments are required to set numerical targets for the restructuring of production facilities and staffing levels, the trend toward job restructuring by both private enterprises and local government SOEs is expected to intensify. With the employment environment already deteriorating, the pace of improvement in the income environment is slowing gradually, causing the growth rate of retail sales to fall year by year. Fears about future employment and slower income growth are likely to result in a continuing downward trend in consumption.

(2) Possibility of a Return to a Default Prevention Stance

There is another possible scenario. In one sense, an increase in defaults can be seen as a healthy trend, since it shows that market mechanisms are functioning. However, China is already burdened with massive amounts of corporate debt and nonperforming loans, and there is a risk that a rapid rise in the default ratio due to corporate bankruptcy chain reactions could lead to a hard landing for the economy.

In addition to moral hazards caused by government guarantees, the effects of large-scale monetary easing after the 2008 global financial crisis include excessive capital expenditure and increase use of wealth management products by businesses, and excessive credit provision by financial institution. As a result, leverage in China, as viewed from a macro perspective, has risen to a dangerous level. According to the People's Bank of China, the balance of outstanding bond issues surged from 3.8 trillion yuan at the end of 2010 to 14.6 trillion yuan at the end of 2015. According to the Bank for International Settlements, the debt balance for non-financial corporations, including bonds, bank loans, and other sources of finance, rose from 49.7 trillion yuan to 111.9 trillion over the same period. As a result, the ratio of the outstanding debt of non-financial corporations to GDP rose by over 40 percentage points, from 120.3% to 163.2% over a five-year period.

In its report on its Article IV consultation with China, the IMF observes, albeit in a graph rather than in the main text, that the ratio of total credit to GDP had risen by more than 30 percentage points over the past five years in 42 countries, and that 18 of those countries had experienced economic hard landings resulting from financial crises within the past five years⁽³⁾. The 18 countries are Ireland, Argentina, the United Kingdom, Italy, Greece, Sweden, Spain, Thailand, Denmark, Norway, the Philippines, Finland, Brazil, Belgium, Portugal, and Malaysia (once each), and Uruguay (twice)⁽⁴⁾.

In view of this situation, it is possible that the government will return to a stance of preventing defaults for fear of crisis-driven deleverage. SOEs, local governments, and financial institutions are all suffering as a result of the government's decision to allow defaults, and they are perhaps hoping for a return to a default prevention stance. If that happens, China's fiscal soundness will be compromised, and the solution of the "rigid payment" problem will be postponed. Such a situation could lead to further growth in corporate debt and potential NPLs.

The Chinese government therefore needs to plot a complex course that will allow it to avoid economic stalling and aim for stable growth while enhancing the functions of market mechanisms.

Conclusions

As we have seen in this article, market mechanisms are not functioning in China's corporate bond market. China's extremely low bond default rate reflects the long-standing practice of rigorously meeting principal and interest payment obligations.

One of the factors behind this situation is government guarantees. When an SOE was about to trigger China's first bond default, the default was averted after banks provided finance backed by a local government guarantee. The local government concerned appears to have taken action to prevent the bond default because if the default had occurred and the SOE concerned had gone bankrupt, there would not only have been employment problems involving tens of thousands of workers, but the local government itself would come under public scrutiny over its own responsibility for the situation.

In the Chinese bond market, SOEs are able to procure finance cheaply without any scrutiny of their management efficiency. This has resulted in moral hazards for both borrowers and lenders. Borrower awareness has been eroded by the existence of central and regional government guarantees, while lenders have become lax in their screening of corporate financial positions.

Similar problems have affected bank lending. Private enterprises have long faced difficulties when trying to obtain bank loans, and the interest and commissions charged by banks are extremely high. In contrast, SOEs are still able to obtain bank loans at low interest rates. Market mechanisms have been further distorted by government subsidies.

Of course, the government has recently started to shift to a stance of allowing defaults. This has resulted in a sharp increase in the number of bond defaults since the start of 2016. The number of defaults is likely to rise still further, in part because there is a strong possibility that the government will maintain its stance of allowing defaults. However, leverage in China has reached a dangerous level from a macro perspective, and it is possible that fear of destabilization will lead the authorities to return to a stance of preventing defaults.

End Notes

- Government bonds consist of both central government and local government bonds. There are four types of financial bonds: government bank bonds, commercial bank bonds, sovereign wealth fund (Huijin) bonds, and non-bank financial institution bonds. For detailed information, please see An Guojun, Sun Mingjie [2015], 2015 Nian de Zhongguo Zhaiquan Shichang [Chinese Bond Market in 2015], in Yin Jianfeng ed., Blue Book of Finance : Annual Report on China's Financial Development (2016), Social Science Academic Press.
- 2. For more information, see S. Mallaby, Paul A. Volcker [2015], *The World Economy in 2016: Watch China*, Council on Foreign Relations, December 23, 2015.
- 3. The IMF periodically sends representatives to member countries to gather economic and financial data and consult with government officials and others about the economic situation and policies in each country. This process is known as "Article IV Consultation." Reports on these consultations include economic analyses and policy recommendations by the IMF. IMF [2016] refers to *People's Republic of China: Staff Report for the 2016 Article IV Consultation, July 7, 2016*, which was published in August 2016. The graph referred to this article is on Page 13 of the report.
- 4. The graph does not list the 24 countries that did not experience hard landings as a result of financial crises. Nor is there any explanation about the criteria used to the draw a line between the 18 countries and the remaining 24 countries.

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