FRBSF ECONOMIC LETTER

Number 2007-07, March 16, 2007

Prospects for China's Corporate Bond Market

While China's economic reforms have engendered much success since they were undertaken in the late 1970s—real GDP growth has averaged roughly 10% per year over the period—the development of its financial system arguably lags behind. Very high investment (over 40% of GDP) has fueled much of the recent growth, but, as some claim, it also has generated excess capacity in the economy, a sign of inefficient allocation of capital. With the saving rate in China even higher than its investment rate, the development of a financial intermediation system that would allow more efficient allocation of capital is key to sustaining China's economic growth.

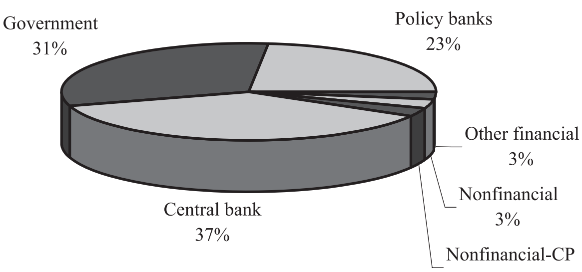
Currently, China's banking system is the main source of external corporate financing, and much has been done to reform it through the transfer of nonperforming bank loans to specialized asset-management corporations and through initial public offerings by five of the six largest banks. However, as Dobson and Kashyap (2006) argue, it is far from being able to provide efficient capital allocation, because it still lacks incentives for profit-maximizing lending, it is short on competent risk analysts, and it frequently acts as the financial agent of the government, directing government funds to inefficient state-owned enterprises (SOEs).

An alternative way for firms to borrow is by issuing corporate bonds. However, China's corporate bond market is currently very small. Is it likely that the bond market can develop as an alternative to bank financing for private firms? This *Economic Letter* argues that, while demand for corporate bonds is likely to rise, both theory and other countries' experiences suggest that the supply of corporate bonds is not likely to grow until the state of the banking system improves. Thus, the bond market should not be viewed as a potential substitute for bank financing. Rather, improvement in the banking system will be needed before China's corporate bond market can develop.

How big is China's corporate bond market?
While China's bond market is 27% of GDP, about the same as in other East Asian countries (excluding Japan), most Chinese bonds are issued by the government and government-owned policy banks. As Figure 1 shows, only 6% of bonds, including commercial paper (CP), are issued by nonfinancial enterprises (including SOEs). The corporate bond market provides only 1.4% of the total financial needs of corporations in China (about 85% is financed by banks and about 14% by equity). These numbers are extremely low by comparison to most countries.

Bank lending and the bond market: Theory
There are two main reasons why firms might want to borrow in the bond market rather than take loans from banks, and both reflect cost advantages of the bond market. First, as Diamond (1991) demonstrates, firms that develop a reputation for being either the safest or the riskiest borrowers do not benefit from the monitoring services provided by banks, and therefore they are better off borrowing in the bond market and thus avoiding the monitoring costs that banks would pass on to them. Second,

Figure 1
Bond market structure in China



Data source: Chinabond, October 2006.

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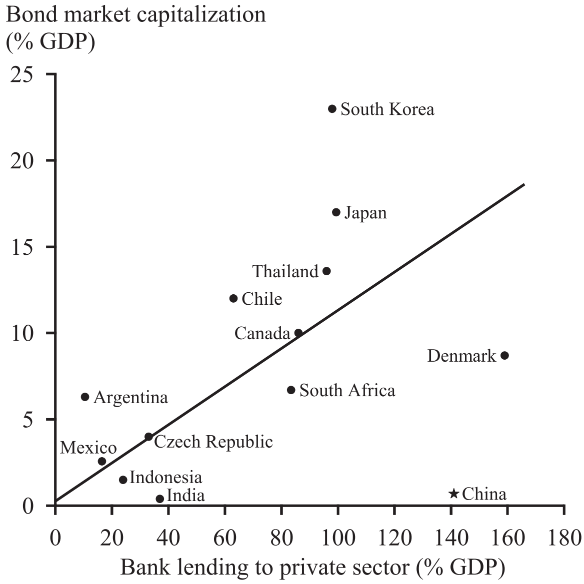
as Rajan (1992) shows, issuing a bond disseminates information about the firm to a large number of lenders, which can overcome the information-based monopoly that a bank has over the borrower, thus lowering the information rent that banks can charge the firm. (Both theories appear to hold empirically for U.S. firms, as shown, for example, in Hale and Santos 2005, 2006.)

In these theoretical models, both sources of cost advantage require that banks price the loans they make to firms in accordance with the firm's creditworthiness. If the banks do not engage in credit risk analysis or the interest rates are not flexible, there will be no competitive forces to lower the cost of borrowing for the firm after it disseminates its information in the bond market. Clearly, such conditions are not yet fully met in China, so, as I will discuss below, the models would predict little, if any, cost advantage for firms to tap into that country's bond market.

Figure 2
Bank lending and the size of bond market



Data source: World Development Indicators, as of the end of 2004.

Bank lending and the bond market: Global evidence

Using the data for 37 countries, excluding China, for the period between 1995 and 2004 from the World Development Indicators database, I find that, on average, a 10% increase in the ratio of private sector bank lending to GDP is associated with an 11% increase in the ratio of bond market capitalization to GDP. That is, countries that have larger markets for bank loans also tend to have larger bond markets. While this statistical relationship does not imply that larger bank loan markets necessarily lead to larger bond markets, it shows that these two markets are more likely to be complements than substitutes in practice, consistent with the implications of the theory.

To illustrate this result, Figure 2 shows the relationship between bank lending to the corporate sector and the size of the corporate bond market in selected countries at the end of 2004. The straight line represents the relationship derived from the full, 37-country, 10-year analysis described above. It is clear that countries with larger bond markets also have more, not less, bank lending to the private sector, which is consistent with the findings of Borensztein, Eichengreen, and Panizza (2006).

Where does China stand?

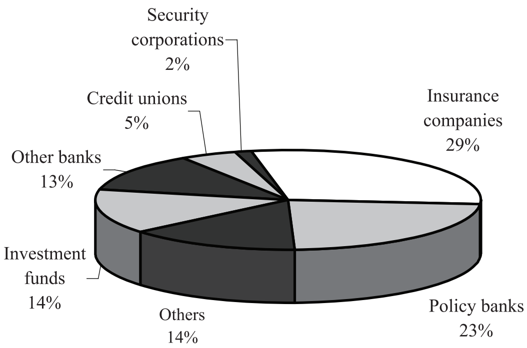
Given China's private sector bank lending (140% of GDP in 2004), the relationship depicted in Figure 2 predicts that China's bond market capitalization in 2004 should have been 16% of GDP, while, in fact, it was only 0.7% of GDP. Indeed, though bank lending in China appears to be on par with Japan and South Korea, its bond market is roughly as small as India's.

In much economic analysis, the ratio of bank lending to GDP is interpreted as a measure of the degree of banking sector development. However, as discussed above, both the quantity of bank lending and the quality of banking institutions matter for the development of the bond market. In China, where more than 50% of bank lending is still conducted by the four state-controlled policy banks, the ratio of bank lending to GDP is likely to overestimate the development of the banking sector. If we adjust this measure by the efficiency of bank lending, China would not appear to be as much of an outlier as it does in Figure 2, suggesting that the banking system needs further improvement for the bond market to develop.

Will the Chinese bond market develop?

On the demand side, China still needs to develop financial institutions willing to hold corporate bonds: insurance companies, pension funds, investment funds, and the like. As Figure 3 shows, over a third of China's commercial bonds are held by banks and only 16% by security corporations and investment funds combined. The state-controlled National Social Security Fund is allowed to invest 10% of its assets in corporate bonds, but currently it does

Figure 3
Who holds Chinese corporate bonds?



Data source: Chinabond, October 2006.

not hold any. As these institutions develop, the demand for corporate bonds will grow.

On the supply side, as the theory discussion illustrates, one should not expect firms to increase bond issuance until the banking system is functioning more competitively. While banking reform in China is well under way, more than half of the loans in China are still made by four state-controlled policy banks, which limits competition in the banking system. In addition, very little credit analysis is conducted by the banks, which makes it difficult for firms to build a reputation for repayment and also makes the interest rates firms pay insensitive to past credit performance. Until firms develop some reputation (either good or bad), they are not likely to find it profitable to raise money in the bond market. Moreover, many private firms do not have access to bank credit and, therefore, have no means of developing a reputation for repayment that is essential for borrowing from the bond market.

The interest rates that banks charge their customers are still relatively inflexible and are unlikely to vary with credit history or to be high enough to recover the information rent. In addition, the secondary market for corporate bonds, which would be needed to disseminate the information on the firms through the pricing of their bonds, is still underdeveloped: currently, over 50% of corporate bonds and 100% of commercial paper are traded in the interbank market, which is not very liquid. Thus, it is unlikely that firms would gain any informational advantage by issuing bonds, because the bond market will not be able to incorporate the information about firms into bond prices.

Conclusion

China's corporate bond market is very small, especially relative to the large amount of bank credit to private firms. This is due to the small number of institutional investors interested in purchasing corporate bonds and to the lack of incentives for firms to issue bonds. While the demand for bonds is expected to rise as nonbank financial institutions develop, the supply of bonds is likely to stagnate until the banking system becomes more competitive and less dependent on the government. Thus, the development of a corporate bond market should not be viewed as a substitute for banking reform. Of course, the Chinese government could require state-owned enterprises to issue bonds rather than borrow from the banks; in that case, however, the important informational role of the bond market would be lost.

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