Changes in financial intermediation structure

Their implications for central bank policies: Korea's experience

Huh Jinho[1]

Abstract

Korea's financial intermediation structure has changed significantly since the global financial crisis: the shares of corporate fund-raising through direct financing and of fixed rate and collateralised lending have expanded. Corporate reliance on direct financing has increased, but indirect financing still serves as the major funding channel. Accordingly, bank lending and deposit rates and credit are important transmission channels for monetary policy. Against the backdrop of these changes in the financial intermediation structure, this paper will discuss the implications for monetary policy from the perspective of the effectiveness of policy rate transmission channels, the impact of external shocks such as changes in the monetary policy stance of major economies, and financial stability.

Keywords: financial intermediation, bank lending, corporate bond issuance, monetary policy transmission

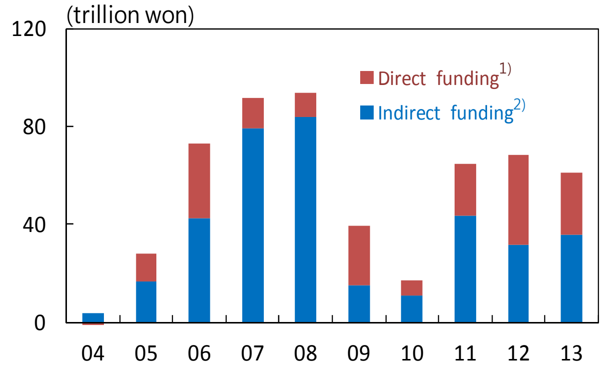
JEL classification: E52, E44

[1] Director General, Financial Markets Department, Bank of Korea. The author would like to thank Seung Chul Han, Jeong Heon Lee and Eunsook Kim for their assistance.

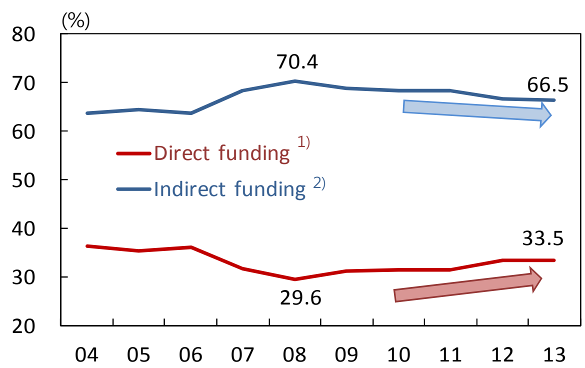
1. Bank lending markets

Since the global financial crisis, corporations' reliance on indirect funding has fallen as their borrowing from banks has contracted to a considerable extent, while their funding through direct finance has steadily increased. The share of indirect funding in total domestic funding (outstanding amount basis) fell from 70.4% in 2008 to 66.5% in 2013. Indirect funding is still the main channel for corporate funding, however, with its share in total funding remaining much higher than that of direct funding.

Corporate funding volumes, by type (net increases) Figure 1



Shares of corporate funding by type (outstanding amount basis) Figure 2



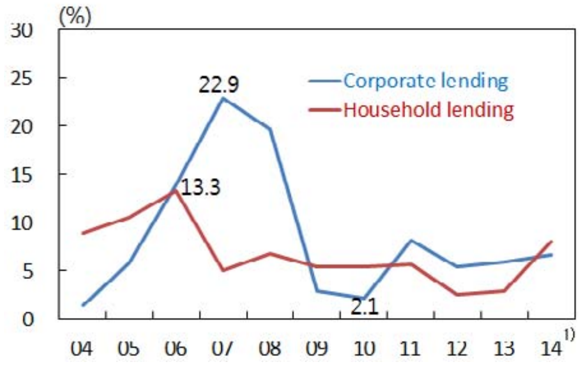
Notes : (1) Corporate bonds, CP; (2) Deposit money bank lending
Source: Bank of Korea.

Bank lending to the corporate sector shrank dramatically immediately after the financial crisis, but then gradually recovered. The growth in household lending meanwhile slowed, due mainly to government measures to curb household debt. The annual rate of increase in corporate lending reached 22.9% in 2007, but then declined sharply to 2.1% in 2010 in the aftermath of the financial crisis. It has accelerated again since 2011, but is still below its pre-crisis level, owing to the delayed economic recovery and to tighter credit standards at banks. The rate of increase in household lending meanwhile accelerated to 13.3% in 2006, but after that fell to the 2–7% level for the next several years, owing mainly to the sluggish housing market and to government measures to curb household debt. It then accelerated greatly in 2014, however, due primarily to low interest rates and the easing of the loan-to-value (LTV) and debt-to-income (DTI) regulations with the aim of revitalising the housing market. Meanwhile, the loan-to-deposit ratio regulation[2] introduced at end-2009 has worked as a factor that changes the focus of banks in their funding operations from business expansion to improving asset soundness, thus contributing to some extent to slower growth in bank lending.

[2] The loan-to-deposit ratio (average outstanding balance basis) regulation = loans in won/deposits in won ≤ 100%. The financial supervisory authorities have restricted banks' Korean won lending to within 100% of their Korean won deposits since the end of June 2012.

The share of fixed rate loans has risen in lending to both corporations and households since 2010. In particular, as the government encouraged banks to expand their fixed rate loans in order to improve the household debt structure, the share of these loans in household lending rose from 6.6% at the end of 2009 to 29.9% at the end of November 2014, a faster pace than their comparable weight in corporate lending (20.6% at end-2009 to 33.3% at end-November 2014).

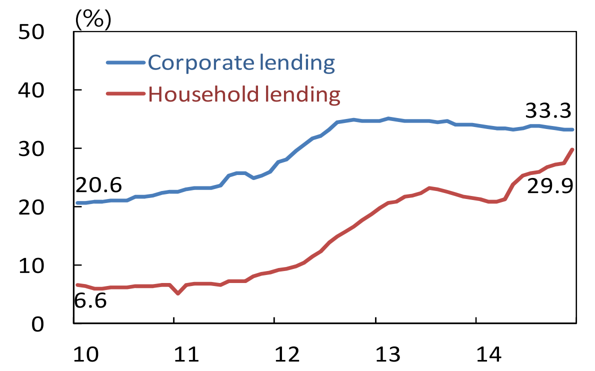
Rate of growth in corporate and household lending — Figure 3



Note: (1) Excluding the effect of the inclusion of loans in accordance with the merger of Korea Development Bank with Korea Finance Corporation for the 2014 figure.

Source: Bank of Korea.

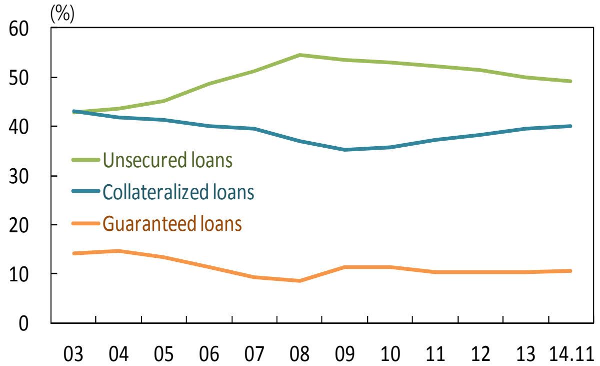
Share of fixed rate bank loans (outstanding amount) — Figure 4



Source: Bank of Korea.

As banks have maintained a conservative attitude toward lending since the financial crisis, the share of collateralised loans in corporate lending increased from 36.9% at the end of 2008 to 40.1% at the end of November 2014, whereas that of credit loans declined from 54.6% to 49.2% over the same period. The share of lending to corporations with low credit ratings rose to 8.1% at the end of August 2010 but then fell back to 5.1% at the end of November 2014.

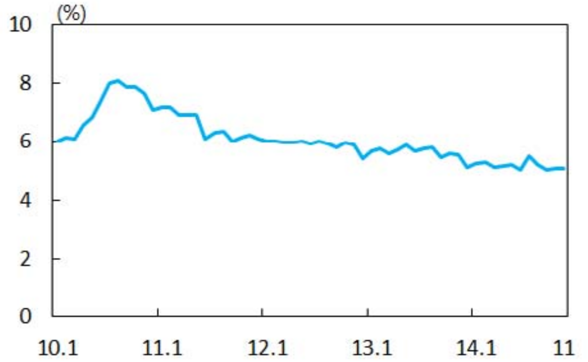
Share of collateralised loans in corporate lending[1] — Figure 5



Note : (1) Based on the outstanding amount at end-period

Source: Financial Supervisory Service.

Share of lending to corporations with low credit ratings[1] — Figure 6



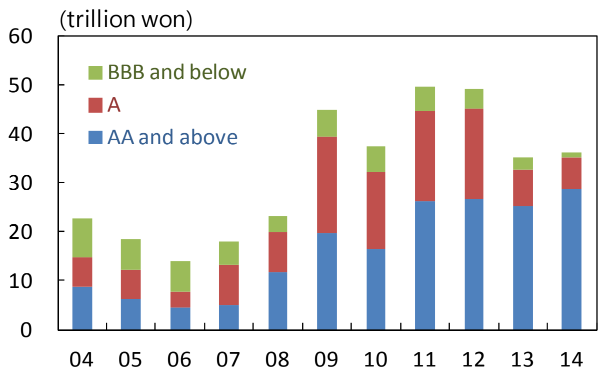
Note: (1) Based on corporations with 7th to 10th credit ratings in the 10-scale rating system.

Source: Bank of Korea.

2. Bond markets

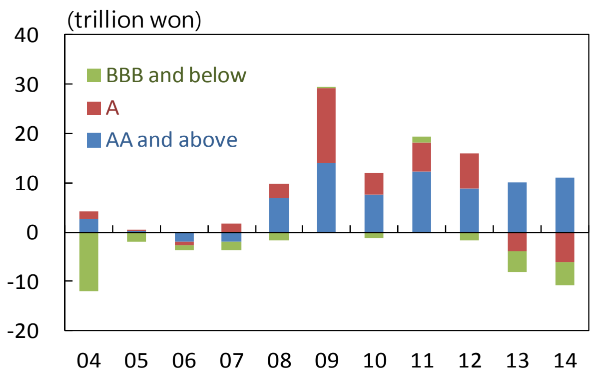
Corporate bond issuance has increased significantly since the financial crisis, due to the decline in long-term market interest rates and to corporate efforts to raise long-term funds. Since 2013, meanwhile, the issuance of corporate bonds by sub-par companies rated A or lower has shrunk considerably owing to heightened credit risk aversion after a series of defaults by well known names. Since 2014, however, the fundraising situation has varied even among subprime companies, as seen, for example, in the increased demand for corporate bonds issued by some subprime issuers.

Total volume of corporate bond issuance — Figure 7



Source: Korea Securities Depository.

Volume of corporate bond net issuance — Figure 8

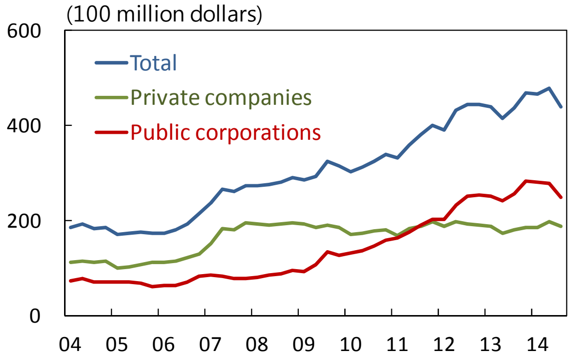


Source: Korea Securities Depository.

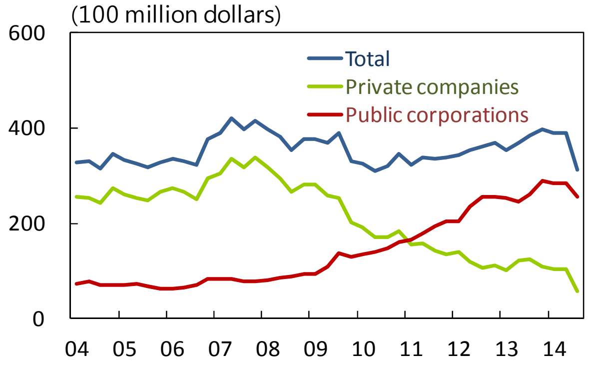
Overseas corporate bond issuance has increased significantly, as global liquidity has accumulated and international investors have regained their appetite for risk following quantitative easing by advanced economy central banks. In particular, energy-related public corporations have rapidly expanded their bond issuance for purposes such as raising funds for foreign direct investment. The outstanding amount of overseas bond issuance by public corporations more than tripled from $7.7 billion at the end of 2007 to $25.4 billion at the end of September 2014.

Public corporations, which have made very few investments in international debt securities, have seen their net foreign liabilities increase greatly. On the other hand, the net foreign liabilities of private companies declined sharply from $33.8 billion at end-2007 to $5.7 billion at end-September 2014 as their holdings of foreign bonds increased rapidly on the back of abundant foreign liquidity generated by the current account surplus.

Outstanding amount of overseas corporate bond issuance	Figure 9	Corporations' net external liabilities[1]	Figure 10



Source: Bank of Korea (Statistics on external credit/liabilities).



Note: 1) External liabilities (foreign bonds, borrowings from overseas etc)—external credits

Source: Bank of Korea (Statistics on external credit/liabilities).

3. Implications for monetary policy

While the dependence of corporates on direct financing has increased moderately since the financial crisis, indirect financing is still their major source of funding. Accordingly, banks' lending and deposit rates, and other credit channels, continue to be the key transmission channels for monetary policy.

Changes in financial intermediation since the financial crisis, such as the growing weight of fixed rate lending, the conservative lending attitude of financial institutions, and credit differentiation have acted to weaken the effects of monetary policy transmission. As fixed rate lending is based on long-term market rates and at a rate fixed until maturity, the effects of policy rate adjustments are transmitted relatively slowly compared to those via variable rate lending. Moreover, the conservative lending attitude of financial institutions, which focus mainly on extending prime and collateralised loans, together with credit differentiation in the direct and indirect financial markets, is hindering the transmission of policy rate adjustment by restricting the access of companies with poor credit and collateral to the direct and indirect financial markets.

However, empirical analysis using a dynamic panel model shows that the transmission effects of policy rates on banks' lending and deposit rates have grown significantly since the financial crisis.[3] Despite the constraints mentioned above,

[3] In the short term, and compared with the pre-financial crisis situation, the scale of the adjustment of bank lending rates after a change in the policy rate more than doubled after the crisis (based on the month of the policy rate change: 31% → 74%). In the long term, while the degree of adjustment was almost the same (89% → 85%), its pace has gathered speed with the shortening of the transmission period (11 → four months). See Bank of Korea, "Analysis of the Transmission Effects of the Policy Rate on Bank Lending Rates", Monthly Bulletin, July 2014.

post-crisis regulations on banks' loan-to-deposit ratios[4] and on loan premiums[5] are thought to have heightened the effectiveness of the interest rate transmission channels.

Since corporate overseas bond issuance has increased greatly, the related rollover costs could increase if global interest rates go up due to any shift in the US Fed's monetary policy stance. However, only 4.1% of private companies' funding is external (as at September 2014), and their net external debt has declined greatly. Unless global liquidity conditions worsen dramatically, they are thus unlikely to face huge difficulties in raising funds overseas.

As their net external debt has expanded with the surge in bond issuance overseas, public corporations are more likely than private companies to be exposed to external shocks.[6] However, the proportion relative to GDP of the outstanding bonds issued overseas by public corporations stood at only 2.2% as of 2013, and the issuance of foreign currency-denominated bonds and their share relative to GDP are unlikely to increase very fast given the government's policy of debt reduction (announced in December 2013). Bond maturities[7] are also diversified, at more than five years on average. Therefore, even if financial jitters emerge in EMEs and foreign bond markets become strained due to monetary policy normalisation in advanced economies, the effects on external funding by public corporations in Korea will likely be limited.

4 The regulation on Korean won-denominated loan-to-deposit ratios has steepened banks' fund supply curve in the lending market, causing lending rates to fluctuate to a larger extent in the event of a policy rate adjustment.

5 To increase the transparency of bank lending rate calculation, the government introduced regulations on premiums such as the model guidelines on premiums (Nov. 2012) and disclosure of comparative rates (March 2013), and this acted to restrict banks' behaviour in adjusting premiums in a direction opposite to the movements of the policy rate and market interest rates.

6 The proportion of funds raised overseas in public corporations' total fundraising was 6.4% as of September 2014.

7 **Maturities of corporate bonds issued overseas**[1]

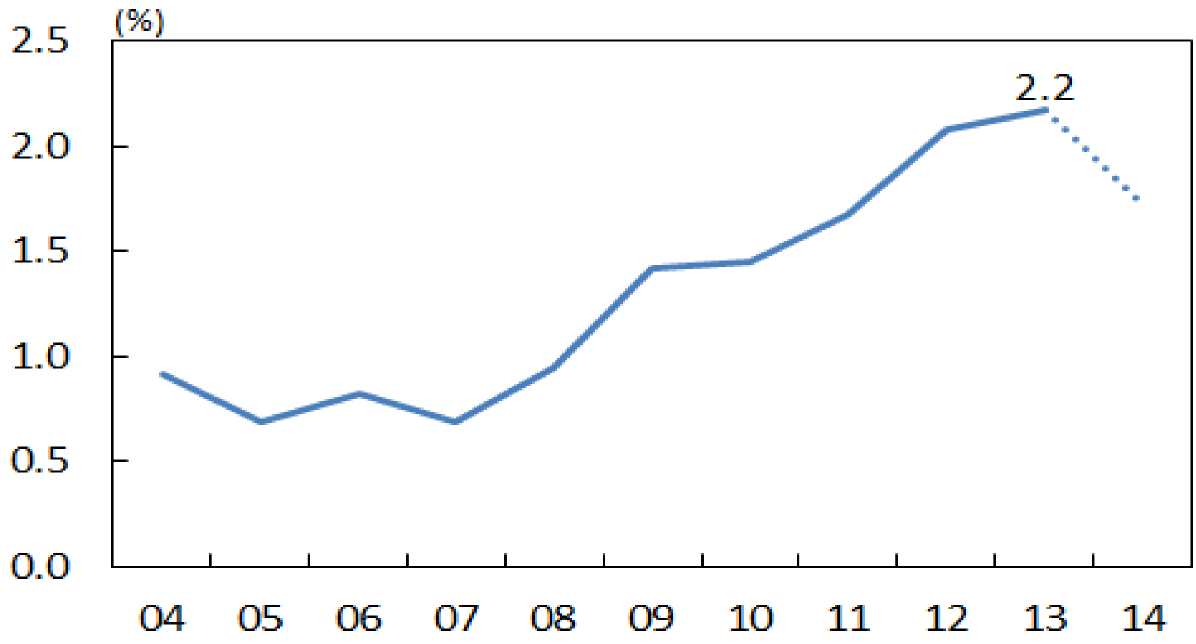
(year)

	2008	2009	2010	2011	2012	2013	2014[2]
Public corporations	5.8	5.0	5.7	5.6	8.3	5.4	7.5
Private companies	4.0	4.7	7.2	5.4	7.8	4.2	4.0
Total	4.8	4.9	6.1	5.5	8.1	5.0	6.7

Notes : 1 Based on weighted averages of total amounts outstanding
2 Between January and August 2014
Source : Yonhap Infomax.

Proportion relative to GDP of outstanding bonds issued overseas by public corporations

Figure 11



Note: IMF, *World Economic Outlook* estimates used for 2014 GDP.

As at end-September 2014 for outstanding bonds issued overseas.

Sources: Bank of Korea, external debt statistics; IMF, *World Economic Outlook*.

We need to be cautious in using monetary policy to respond to a contraction in financial markets caused by credit risk aversion. During 2013 and 2014, the issuance of subprime company bonds fell after the insolvencies of several conglomerates. However, bank lending offset the sluggish corporate bond market to some extent, and credit differentiation induced the restructuring of weak companies, which was assessed to be a positive development.[8] But, as it is growing credit risk aversion that has constrained the access of subprime companies to funds, we need to bear in mind that the effect of interest rate policies might be weak.

Meanwhile, macroprudential policies such as the LTV and the DTI ratio regulations have supplemented monetary policy. The Korean government introduced these measures in order to respond to overheating in the housing market and rising household borrowing. These policies have been positively viewed as having helped Korean households to maintain their financial soundness while weathering the global financial crisis. Although the Bank of Korea lowered its Base Rate sharply in response to the economic slump immediately after the financial crisis, household debt accumulation remained muted thanks to the tightening of the LTV and DTI restrictions. However, the Base Rate was lowered together with the easing of these restrictions in the second half of last year, and the complementary effects of these macroprudential policies were thus weakened.

8 It was found that many subprime companies have prepared capital to redeem their corporate bonds through cash holdings and disposals of assets.

Although the share of fixed rate loans has increased, it still lags well behind that of variable rate loans. With hikes in interest rates expected going forward, the interest repayment burdens of many companies and households will rise. In response to the shifts to tighter monetary policy in the future, it would be desirable for marginal companies to undergo a swift restructuring, while microeconomic policies are improved in order to help low-income families to increase their repayment capabilities.