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Interbank market, stock market, and bank performance in East Asia

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ABSTRACT

This paper investigates the role of stock and interbank markets in measuring bank performance in Korea, Malaysia, and Thailand. Research on whether financial markets served in terms of assessment and discipline of banks has been done in advanced countries; however, there has been limited research on this question as it applies to banks in East Asian countries. The stock price of individual banks can reflect a bank's risk profile, interbank loans to domestic banks with higher risk and bad performance may decline, and interbank borrowing rates charged to banks can respond to bank performance. This functioning of the stock and interbank markets is particularly important from the view of maintaining and strengthening the domestic banking sectors and the financial system in East Asia. This paper employs panel regression techniques and examines whether interbank transactions and stock prices of domestic commercial banks responded to bank risk and performance in those Asian countries. The regression results suggest that interbank borrowing, the borrowing rate, and foreign currency borrowing were affected by bank risk variables subsequent to the 1997 crisis in Thailand. In Korea, foreign currency borrowing of domestic banks may respond to bank risk after the crisis. In the case of stock markets, the regression shows that bank risk influenced each bank's stock price in Korea and Malaysia. The results for Thailand suggest that bank risk and cost affected bank stock prices after the crisis. These findings imply that improving both the interbank market and the stock market may play a role in establishing a sound banking system through market discipline effects.

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1. Introduction

A sound banking system is important, particularly for the economy in East Asia, where significant numbers of companies rely heavily on bank loans for financing. While the crisis of 1997 prejudiced banking systems in East Asia, governments in the affected countries have been making improvements to their banking sectors and financial systems since then. In particular, these countries have tried to address the problem of nonperforming loans, and have sought to rebuild the banking system through the restructuring and consolidation of domestic banks. The authorities also continue to pursue reforms of the banking systems, and previous articles described this process in East Asian countries.[1] However, while the question of whether financial markets have fulfilled the function of assessment and discipline of banks has been explored in advanced countries, little work has been done for Asia. Yet, it is an important issue for Asia in terms of maintaining and strengthening the domestic banking sectors and the financial systems in these countries. This paper examines the role of the stock and interbank markets in measuring bank performance in Korea, Malaysia, and Thailand. We chose these countries because their economies were damaged significantly by the crisis of 1997 and their banking sectors and financial systems were reformed thereafter. The responses of stock prices and interbank borrowing can be changed after the Asian crisis.[2]

Some authors considered the discipline effect of the deposit market on banks.[3] Demirgüç-Kunt and Huizinga (2004) examined the impact of deposit insurance on deposit interest rates and market discipline using cross-country information.[4] They suggest that the existence of explicit insurance could lower bank interest rates and reduce the market discipline effect on banks by their creditors.[5] Peria and Schmukler (2001) analyzed the relationship between market discipline and deposit insurance, and the impact of the banking crisis on market discipline in Argentina, Chile, and Mexico. They show that depositors punished banks for risky behavior by withdrawing their deposits and by requiring higher interest rates. In addition, Peria and Schmukler suggest that the relative importance of market discipline rose after the banking crisis.[6] Hosono et al. (2005) explored the effectiveness of market discipline by depositors in Asian countries by investigating whether deposit interest rates and deposit growth rates responded to bank risk. They conclude that market discipline seemed to get stronger in Indonesia after 1999, though the risk sensitivity of depositors decreased after the crisis in Korea and Thailand.[7] Hadad et al. (2011) examined the effect of changes in bank regulation on market discipline by depositors in Indonesia. They showed a weakening of market discipline following regulatory changes.

Previous empirical analyses explored the question of whether bank stock prices in industrialized countries reflect banks' characteristics, risks, and other information. For example, Brewer et al. (2003) examined stock prices of Japanese banks during the banking crisis of the mid-1990s. Their research suggests that shareholders of banks responded to the financial conditions of individual banks, and that the market was able to differentiate between banks in its response to the failures. This implies that stock markets were effective in monitoring bank performance and in helping to establish discipline. Berger et al. (2000) focused on assessments of bank holding companies in the U.S., and compared the value of information from government supervisors, bond markets, and equity markets. Their findings suggest that equity market investors tend to be concerned with future changes in the performance of bank holding companies. While Franke and Krahnen (2005) discussed the securitization of loans by banks in Europe and the U.S., they also analyzed the influence of banks' securitization announcements on their stock returns.[8]

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[1] Kho and Stulz (1999) used bank stock indices to test the impact of the Asian crisis on banking sector.

[2] In addition, we can obtain data on the balance sheets of individual banks and on the macroeconomic conditions in Korea, Malaysia, and Thailand.

[3] Goldberg and Hudgins (2002) concentrated on the role of uninsured deposits at thrift institutions. Their results indicate that uninsured depositors had incentives to monitor and discipline thrifts.

[4] To explore the market discipline effect on banks, Evanoff et al. (2011) used the subordinated debt of banks while Palvia (2011) employed CEO turnovers of banks, instead of variables related to the deposit market.

[5] Karas et al. (2013) isolated the behavior of households from that of firms by analyzing the case of Russian banks to estimate the impact of deposit insurance on the change in household behavior. They claim that the sensitivity of households to bank risk decreased after the introduction of deposit insurance.

[6] They insisted that the crisis had a greater impact on depositors than did introduction of the deposit insurance system.

[7] Hosono et al. (2005) focused on Indonesia, Korea, Malaysia, and Thailand. They declare that their results did not show the existence of the so-called "wake-up-call effect," which is where depositors become more aware of bank risk after bank failures.

[8] They found that the issues of asset-backed securities could increase the banks' beta based on the CAPM.