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Determinants of bond market development in Asia

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ABSTRACT

One of the major reasons behind the Asian financial crisis in 1997 was the excessive dependence of the Asian economies on commercial banks for domestic financing. The region failed to diversify its sources of corporate financing as it relied mainly on banks since its other types of financing, namely bond markets, were still underdeveloped and their sizes were quite small. On the other hand, the 2008 global financial crisis and the ongoing European debt crisis have led to constraints in acquiring local currency and foreign currency liquidity in the corporate sector in Asia as foreign banks withdrew investments from Asia. Furthermore, Asia needs large long term capital (US$ 750 billion per year for 2010–2020) for developing infrastructure connectivity within and across its economies. Local and regional capital can be channeled for long-term infrastructure projects and other productive investment through bond markets. Having a well-developed local currency bond markets can enhance the resilience of domestic financial sector to external shocks and it can facilitate better intermediation of savings into productive investments in Asia. To enhance corporate bond financing, it is important to examine factors that affect the effective development of bond markets in Asia. The study attempts to identify the determinants of bond market development in Asian economies through examining the relationship of bond issuance with selected key financial and economic factors. It also intends to provide policy recommendations for the further development of the Asian bond market. Major determinants for bond market development in Asia include the size of an economy, the stage of economic development, the openness of an economy, the exchange rate variability, the size of the banking system, and interest rate variability.

1. Introduction

One of the major reasons behind the Asian financial crisis in 1997 was the excessive dependence of the Asian economies on commercial banks for domestic financing. The region failed to diversify its sources of corporate financing as it relied mainly on banks since its other types of available financing, namely bond markets, were still underdeveloped and their sizes were quite small. Furthermore, the de facto peg of these economies' currencies to the US dollar minimized the currency risks for both borrowers and lenders. In the case of local borrowers, this encouraged the excessive availment of foreign currency denominated loans as currency risks were deemed low while there was a significant difference between local and foreign interest rates. From the point of view of foreign lenders, this provided a somewhat stable currency, which, together with the higher growth rates and higher interest rates (i.e., higher returns on investment) in the Asian region relative to other parts in the world, encouraged foreign capital inflow. Asian economies faced the "double mismatch" problem or the "twin risk" problem, namely currency and maturity risks. Corporate borrowers predominantly created this problem by raising funds in

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foreign currency on a short-term basis. The Asian corporate sector borrowed short-term foreign currency loans from commercial banks, which they used for financing their long-term domestic investment. When debt service on short term loans matured but credit dried up, these corporate borrowers were not able to borrow capital from their outstanding investments. As default cases increased, it became more difficult and more expensive to borrow credit. As capital outflow continued, the currency depreciated and this worsened the ability of corporate firms and banks to pay since their debt in local currency had risen significantly (Asian Development Bank, 2002; Kawai, 2007).

Despite their experience during the Asian Financial Crisis, the corporate sector of the Asian economies continues to depend significantly on bank lending. Since banks are highly leveraged institutions, economies that depend heavily on bank financing are considered much more vulnerable to a financial crisis. The presence of such instability in the banking system can delay or worse, put into halt the implementation of important investment projects, thereby reducing aggregate demand (Herring & Chatusripitak, 2000). Moreover, the double mismatch problem of the region remains, albeit currency mismatch is relatively moderate compared to the Asian financial crisis (Park, 2011). This persistent double mismatch risk could be reduced if more corporate borrowers finance their needs through well-diversified portfolios, particularly through bonds. This calls for the development of sound and sustainable domestic local currency bond markets in Asia. Developing stable and liquid local currency bond markets will reduce the dependence of the Asian corporate sector on banks and foreign currency financing. They can borrow for longer maturity periods in local currency, which matches their investment needs, thereby avoiding balance sheet mismatches (Eichengreen & Luengnaruemitchai, 2004).

In recent years, East Asia[1] has been the fastest growing region in the world. For the period 2003–2008, the People's Republic of China (PRC) exhibited the highest economic growth, followed by Viet Nam. While Asia faced again another crisis in 2008, with the global financial crisis that originated in the United States (US), the emerging Asian countries witnessed strong growth rates ranging from 1.1% in Singapore to 9.0% in PRC. These are faster relative to the economic growth rates that were posted by other developed and emerging economies, some of which even experienced recessions (Asian Development Bank, 2009). However, investment uncertainty still caused capital outflow in most Asian economies. Similar to its Asian Financial Crisis experience, the corporate sector in Asia faced severe constraints in securing not only foreign currency but also local currency financing due to the low level of investors' confidence in the financial markets. In addition, the 2008 global financial crisis and the ongoing debt crisis in Europe have caused a sudden withdrawal of short term deposits, bonds and other investments by investors from advanced economies, resulting in a reduction in liquidity, particularly in terms of dollars, in Asian countries.

Furthermore, Asia needs a large long term capital (US$ 750 billion per year for 2010–2020) for developing infrastructure connectivity within and across its economies. Its local and regional capital can be channeled for its long-term infrastructure projects and other productive investment and this can be done through bond markets. The existence of well-developed local currency bond markets in Asia will not only enhance the resilience to external economic shocks of the domestic financial sector in the region but will also improve the intermediation of Asian savings into productive investments in the region (Bhattacharyay, 2010).

At this juncture, it is very timely to examine how to enhance the development of bond markets in Asia. To undertake this, it is important to examine the factors or determinants that affect bond financing. The literature review shows that while there are studies on determinants of bond markets using cross-section time series data, these usually involved countries worldwide since no empirical study yet has been done that focused on Asian economies by type of bonds. This study attempts to identify the major determinants of bond financing by types of bond using appropriate econometric analysis for selected major East Asian economies, where adequate and comparable time-series data are available, namely Hong Kong, China, the PRC, Indonesia, Japan, Republic of Korea (henceforth Korea), Malaysia, the Philippines, Singapore, Thailand, and Viet Nam. The objective of the paper is to analyze the trends in bond market development in Asia and to identify the determinants of each type of bonds (i.e., corporate, government and total bond financing) in Asian economies by examining its relationship with selected key financial and economic factors.

The next section presents the trends and structure in bond financing in terms of market capitalization for East Asian economies in comparison with other regions of the world for the period 1998–2008. The section also discusses the various regional initiatives for the development of the bond market in the region. The third section provides the methods used for data compilation and computation for dependent and independent variables that were used in the regression models as well as the econometric methodologies that were utilized in doing the analysis. The fourth section presents the results of the empirical analysis, followed by a section that discusses these results. The last section concludes.

2. Trends in bond market development in Asia

From 1998 to 2008, East Asia has witnessed remarkable growth in bond financing. In a span of 11 years, the local-currency bond markets in East Asian economies reached around US$ 13.2 trillion in 2008, three times the US$ 4.5 trillion level in 1998 (Table 1).

Table 1 indicates that East Asia as a whole exhibits a significant rise in bond financing over the said period. Also, the increase in bond financing in each country appears to be correlated with economic growth rates. Among the selected

[1] This study defines emerging East Asian economies as PRC, Hong Kong, China, Indonesia, Malaysia, Philippines, Singapore, Thailand, and Viet Nam.