Chapter 41

THE ASIAN BOND MARKET

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Abstract

One major factor that led to the 1997 Southeast Asian financial crisis was the reliance of the afflicted nations on heavy borrowing from western banks. The crisis has shown the massive need for establishing a regional bond market. Given the huge foreign reserves held by Asian central banks, at present, it is crucial to create a vehicle in order to preserve Asian capital within the region.

Recent progress has been made in the direction of creating regional bond markets in the areas of Asian Bond Fund (ABF) that deals in foreign currency and Asian Basket Currency (ABC) bonds that deals in local currency.

The past few years have seen major improvements in the issuance of Asian government bonds. Yet, the area of corporate bonds in the region still remains clearly underdeveloped due to the lack of credit ratings at investment-grade. Addressing the issue of ratings is one of the real challenges that must be overcome before the Asian region could have a viable bond market.

Keywords: Executive Meeting of East Asia and Pacific (EMEAP) Central Banks; Takatashi Ito; Thansim Shinawatra; First Asian Bond Fund (ABF-1); ABC bond Corporation; The Asian Bond Market Initiative (ABMI); credit enhancement; Colletaralized Bond Obligation (CBO); Securitized Asian Corporate Bonds; International Rating Agencies

41.1. Introduction

Before the Southeast Asia financial crisis, the standard works on the role of capital markets in economic growth (Goldsmith, 1965, 1985; Hakansson, 1992; McKinnon, 1971, 1991) had focused mainly on the *equity* markets. Thus, the establishment of bond market in emerging nations has not received the attention it deserves in the finance literature.[1] For decades, the emerging economies in Asia had grown rapidly without the presence of an active bond market (Dalla et al., 1995; Emery, 1997; Levine, 1997; Sheng, 1994; Yam, 1997). In these economies, bond markets are very small relative to equity markets and the banking system.[2] One of the reasons that enticed Asian firms to borrow heavily from western banks before 1997 was the lack of an Asian bond market.[3] A major consequence of the crisis was to breathe life into the concept of setting up an Asian bond market in order to enhance financial stability (Alba, 1999; Rhee, 2003; Tourk, 2004).

A viable bond market gives the society a true measure of the opportunity cost of funds. In the absence of such market there is a loss of an important signal to channel savings into proper investments.[4] Another drawback is the distortion of the incentives for risk taking which raises the specter of a banking crisis.[5]

Overdependence on bank borrowing means that banks can extract rents from the borrowers as the cost of borrowing is higher than the case where firms have the option of accessing funds from a bond market.[6] Long-term investment is also biased under bank-centered loans since banking institutions tend to offer loans for periods that are significantly shorter than the life span of long-term bonds.

The concept of an Asian bond market is not a new one. The original idea was proposed by the Asian Development Bank, which in the early 1990s issued dollar denominated "Dragon Bonds."[7] The target of these bonds was the Asian investor. Unfortunately, the bonds did not succeed in attracting enough demand because of their low liquidity.

After 1997, the idea of an Asian bond as a vehicle to preserve long-term Asian capital within the region was a direct response to the financial crisis. The new initiative was taken by Japan's Ministry of Finance (MOF). It was supported by the United States. Thanks to the enthusiastic promotion by the Thai Prime Minister Thansin Shinawatra, the Asian bond market has become a reality. He floated the idea in October 2002, at the East Asian Economic Summit organized by the World Economic Forum. Stemming from this, an Asian Bond Fund was established in June 2003 by the head of central banks in the region.

The *raison d'etre* of the fund is for Asian governments and other entities to issue bonds in order to reinvest part of the region's savings in Asia itself (Oh, 2003; Sonakul, 2000] "Since bond rating and settlement is to be handled within the region, the use of dollar bonds will become unnecessary. Eventually it should be possible to issue bonds denominated in regional currency or a basket of regional currencies."[8]

Developing local bond market (Mungthin, 2000) is important in reducing the Asian countries exposure to maturity and exchange rate risks and "sudden stops" in the availability of international capital.[9] The benefits include an increase in the efficiency of allocating surplus funds and the retention of Asian capital. In 2004, central banks of Asia held roughly $1.1 trillion of US Treasuries. In just two years beginning at the start of 2002, the dollar dropped around 26 percent against a basket of six major currencies.[10]

For Asian corporations, they benefit from the diversification of funding sources (i.e. less reliance on borrowing from domestic banks) and improving transparency, leading to better corporate governance. Another advantage is that it would give Asian governments more policy instruments to stabilize their financial markets.[11]

The Asian Bond Market has taken two forms: first an Asian bond market led by East Asia-Pacific (EMEAP) Central Banks and the second is represented by the Asian Bond Market Initiative (ABMI), proposed in 2002 by Japan's MOF, and under the supervision of the ASEAN + 3 finance ministers.

41.2. The Asian Bond Market launched by EMEAP Central Banks

At the beginning of 2005, the foreign exchange reserves in the Asian regions were around $2 trillion dollars, which equals more than 50 percent of the world's reserves.[12] These Asian resources could be channeled into banking, as well as other types of finance,[13] to enable Asian nations to create wealth in each other's economy. Thus, the necessity to establish an infrastructure for bond markets, both primary and secondary. Recent progress has been made in the direction of creating regional bond markets in the areas of Asian Bond Fund (ABF) that deals in *foreign* currency and Asian Basket Currency (ABC) bonds that deals in *local* currency.[14]

The first Asian bond fund (ABF-1) was launched in June 2003 by the central banks of the eleven countries who are members of EMEAP.[15] It consists of $1 billion worth of foreign reserves, which is being invested in a basket of *dollar-denominated* bonds issued in eight Asian economies[16] by sovereign and quasi-sovereign entities in the EMEAP countries, except in Japan, Australia, and New Zealand. The Bank of International Settlements (BIS) will be managing the fund. It has been indicated that the 11-member group plan to consider extending ABF investments to bonds denominated in *Asian* currencies. In December 2004, a second fund was launched with $2 billion in governments' capital to invest in corporate debt issued in local currencies.[17]

41.3. The Asian Bond Market Initiative (ABMI)

The Asian Bond Market Initiative (ABMI) is focused on the creation of a proper environment where access by a wider variety of issuers to the regional bond markets is facilitated (Taniguchi, 2003). Since summer of 2003, working groups representing the ASEAN + 3 finance ministers have defined specific subjects to be reported on to the ASEAN + 3 finance ministers meeting in 2004.[18]

One important step in the creation of proper environment is for the government to establish a benchmark yield curve to serve as the risk-free rate for the pricing of other securities.[19] A program of regular issues at appropriate maturities (e.g., three month, six month, one year, three years, five years, and eventually ten years) should be set up.[20] The interest rate on government bond should be market-determined. It must be kept in mind that minimizing the cost of government borrowing may be in conflict with the development of this market-determined rate. Thus, the government should refrain from any manipulation of the bond market (i.e. requiring some institutions to hold government debt, devising preferential tax treatment for public sector debt) with the purpose of reducing the cost of its borrowing. Doing that would negatively affect the efficiency of the bond market and lead to distortions in the allocation of capital.[20]

41.4. The ABC Bond Corporation

The creation of the ABC bond corporation, dealing in local currency, is the result of a Japanese MOF initiative. One major benefit of the ABC government bonds is that they represent a benchmark for the region. Ito (2003a,b) proposed the establishment of this corporation in order to serve as a depository for financial assets supplied by participating governments in the form of local currency denominated government bonds.

For the ABC government bonds to be priced correctly, it is important that the public sector should be vigorously involved in establishing a deep domestic bond market. Governments must cooperate to issue standardized bonds that can be put into depository to form a standardized basket (i.e. standardized maturity; standardized interest rate calculation, pre-announced coordinated issuance schedule, interest payment methods, depository location).[21] To reduce the weight of the dollar in Asian foreign reserves, ABC bonds that are issued offshore will be treated as foreign reserves.

In the first phase, the ABC Bond Corporation would issue bonds that match the value of the assets. In the second phase, the Corporation may issue bonds that match the value of corporate bonds denominated in various Asian currencies. As such, the ABC Bond Corporation operates along the same lines as a Special Purpose Vehicle (SPV) with asset-backed securities. It is here that the private sector can establish a corporate bond market and asset-backed securities denominated in the basket currency. Corporate bonds are brought into the depository, just like government bonds, and ABC corporate bonds can be issued. The benchmark yield is provided by the ABC sovereign bonds. Because the credit risk is higher, the yield would also be higher. Furthermore, as these bonds can now be sold in the region at large, instead of one country alone, this would reduce the issuing costs. Another advantage is the direct relationship between investors and borrowers.

One major attraction of issuing ABC bonds is that they will diversify currency risk. Firms exporting in the Asian region will issue liabilities that match their revenue streams denominated in the local currencies. By being less dependent on bank loans they will be less affected by banking crisis.[22]

The ABC Bond Corporation operates as an issuer of bonds to be bought by Asian institutional investors. Expected buyers of the ABC bonds include Asian central banks and pension funds. They also includes institutional investors, both Asian and foreign. This is different from the ABF, which serves as an investment vehicle for Asian central banks, acting as a buyer of dollar denominated bonds issued by Asian borrowers.

It should be kept in mind that since pension funds and central banks tend to have passive investment strategies, both the ABF and ABC invested bonds might not be powerful enough instruments in the promotion of market liquidity on the secondary market.[23]

41.5. Credit Enhancement

As explained above, the bonds issued by the ABC Bond Corporation match the value of the underlying assets of this entity, which are denominated in government bonds of various Asian currencies. Even though pledged bonds are backed by full faith and credit of participating Asian governments, the question of credit enhancement comes into play because international rating agencies view various governments differently with respect to credit risk. The enhancement could be either *internal* or *external*.

The most used form of internal enhancement is through the restructuring of the distribution of pooled cash flows to create a new instrument called a Collateralized Bond Obligation (CBO). Under this system, two tranches of ABC bonds could be issued: senior bonds with higher credit rating and lower yields and subordinate bonds with lower credit rating but higher yields.[24]

External enhancement includes third party guarantees provided by official financial institutions (e.g. Development Bank of Singapore, ADB, JBIC), letters of credit by leading international commercial banks and bond insurance provided by monoline bond companies.[25]

In order to transform Asian corporate bonds from speculative-grade assets to investment-grade assets, Asian governments, Asian banks, and Asian credit insurers could offer full or partial guarantees on the issuer. This will facilitate the issuance of credit insurance by top-rated insurers to bond issuers with poor credit ratings. Asian governments could also play an important role in strengthening a system of Asian-based credit insurers.[26]

41.6. Securitized Asian Corporate Bonds

The past few years have seen major improvements in the issuance of Asian government bonds. Yet, the area of corporate bonds in the region still remains clearly underdeveloped (Claessens et al., 1998) due to the lack of credit ratings at investment-grade.

One way to raise the quality of Asian corporate bonds to investment-grade assets is to pool the bonds together making them securitized corporate bonds. A large asset pool of this kind can be listed and traded on the exchange or in the OTC market. This has the advantage of satisfying the market demand for high-yield assets with credit protection. These assets are considered safe because top-rated credit insurers insure the cash flows from the bonds.

So far, Asian securitization has developed very slowly in the region.[27] At present, the investor base for Asian corporate bonds is extremely narrow. While credit enhancement would increase the participation of both Asian institutional and international investors, there is also a need to attract *individual* investors to be active participants in Asian debts. In this regard, the government policies could be important in developing bonds of smaller par value that the general public is enticed to invest in.

Another policy is government support of mutual funds that invest primarily in Asian *corporate* bonds. An encouraging development is the establishment of the Asian bond fund whose objective is to invest in Asian debt securities. It was established in May 2003, by nine Asian governments, where each contributed up to 1 percent of its foreign reserve to the fund. These governments consist of Thailand, China, Japan, Hong Kong SAR, South Korea, Singapore, Indonesia, Malaysia, and the Philippines. It has been suggested that in order to encourage the participation of individual investors,[28] the government bond fund can be further securitized to become either a closed or open-ended fund.[29] Assets in the fund must be insured in order to minimize the credit risk of individual investors. Due to its large market capitalization and prospective large number of investors, both institutional and individual, the liquid government bond fund can flourish into an actively traded asset capable of nurturing a number of financial derivatives. Such derivatives would enable international investors and credit insurers to hedge the credit and market risk in Asia. In short, the Asian governments can play a crucial role in asset securitization that would transform sovereign and corporate debts into attractive investment vehicles for the general public.[30]

41.7. Efficient Financial Intermediaries

An integral part of creating bond markets is the development of an efficient pension and insurance systems. The main advantage of the financial intermediaries, such as pension funds and insurance companies, is the ability to invest in financial instruments other than government bonds. Creditworthy Asian corporations would be able to borrow long-term.

In addition to expanding the finance choices for the private sector, many governments in Asia might find it preferable to develop a yield curve in order to meet their budget deficit obligations. Except for Japan, which has a well-developed bond market, there are still many barriers that must be overcome before it becomes a reality in other parts of Asia.[31] The barriers include weak financial institutions, restrictive investment eligibility requirements, and antiquated transfer, trust, title, and tax policies.[32]

Another major difficulty is the reluctance of international rating agencies[33] to analyze the credit worthiness of Asian corporations. Many of these corporations are family owned and there is a lack of information regarding their financial standing. Thus, poor credit ratings, as assessed by the dominant international rating agencies, are one of the main reasons preventing Asian corporations of issuing unsecured bonds.[34]

To conclude, the challenge facing Asia is to set up a deep and broad bond market.[35] One difficulty is that each country's emerging economy is relatively small. The region has many national currencies. This is in contrast to the Europe where the combined bond market denominated in euro is now poised to rival the American dollar-denominated market.[36] Another related challenge is the present dominant role played by the American currency as a large number of Asian currencies remain tied to the American dollar. On the positive side, the region is witnessing the rise of a plethora of Free Trade Agreements.[37] Asian central banks are in control of huge foreign exchange reserves. This bodes well for the eventual creation of an East Asian monetary union and the introduction of a single currency, most probably in the distant future. In fact, the concept of ABC bonds might be looked upon as antecedent to an Asian common currency.

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NOTES

1. Arnoud Boot and Angan Thakor, " Financial System Architecture", *Review of Financial Studies*, Vol. 10, no. 3, pp. 693–733.
2. Richard J. Herring and Nathporn Chatusripitak, "The Case of the Missing Markets: The Bond Market and Why It Matters for Financial Development." *Asian Development Bank Institute, Working Paper 11*, Tokyo. July 2000, p.1.
3. At the end of 2001, the total outstanding amount issued by Asian emerging borrowers in local and international capital markets showed rapid increase, reaching $1.1 trillion. According to the IMF, in comparison with other regions, "emerging Asia has issued less international bonds (13 percent of the

Asian total outstanding), more government bonds in local markets, but not so dominating (50 percent), and a large private sector share: 20 percent for financial institutions and 17 percent for corporate. The composition of the Asian bond markets is thus similar to that of mature bond markets: domestic governments bonds account for 49 percent, financial institutions 22 percent, corporate 11 percent, and international bonds 18 percent. By contrast, Latin America has issued more international bonds (32 percent – mainly by sovereign borrowers) and government bonds in local markets (55 percent), leaving a small share for the private sector (13 percent). Similarly, EMEA (Eastern Europe, Middle East, Africa) has also issued more international bonds (23 percent) and government bonds in local markets (73 percent), with a negligible share of 4 percent for the private sector.'' Huan QTran and Jorge Roldos ''Asian Bond Markets, The Role of Securitization and Credit Guarantees'' *The 2nd ASEAN Central Bank Governor's Meeting*, Bangkok – 8,9/6/2003, p.2.

4. For example, lacking such signal, firms would overinvest if their internal rate of return is too low, as happened in many emerging economies in Asia during the 1990s.
5. This is particularly true when banks are undercapitalized. In such cases, making a write down in a loan renegotiation might result in violating capital adequacy standards. To avoid declaration of default, some banks might find it expedient to continue funding borrowers with negative present value projects. This exposes the banking system to liquidity shock. Without a bond market, banks do not have the option of selling bonds in a secondary market. Thus, they are likely to accept large losses on the sale of bad loans.
6. Richard J. Herring and Nathporn Chatusripitak, op. cit. pp. 2125.
7. These dragon bonds were simultaneously issued in more than two Asian markets. The markets included the ''dragon'' economies of Singapore and Hong Kong. Hisatsugu Nagao, ''Market for Asian bonds taking shape'', *The Nikkei Weekly*, November 24, 2003, p. 39.
8. Taniguchi Makoto, ''Time for an East Asian economic Zone'', *Japan Echo*, December 2003, p. 34.
9. Hung QTran and Jorge Roldos, ''Asian Bond Markets, The Role of Securitization and Credit Guarantees'', *The 2nd ASEAN Central Bank Governor's Meeting*, Bangkok – 8,9/6/2003, p. 1.
10. William Pesek Jr. ''Dollar skeptics in Asia have prominent company '', *International Herald Tribune*, February 3, 2005, p. B4.
11. Nils H. Hakansson, ''The Role of Corporate Bond Market in an Economy – and in avoiding crisis'', Working Paper, University of California, Berkeley.
12. At the end of March 2003, China, Hong Kong SAR, Japan, Korea, Singapore, Taipei, Thailand held $662 billion worth of U.S. treasury securities. This represented 50 percent of total foreign holdings of these securities and 20 percent of total outstanding treasury securities. These reserves are highly excessive with respect to the seven East Asian nations import needs and exchange rate management. Lim Hug Kiang, 2003, ''East Asian Capital Markets: Challenging Times'', A keynote address delivered at the *Euromoney 10th Asia-Pacific Issuers & Investors Forum*, March 18, 2003, Singapore, cited in S Ghon Rhee, ''The Structure and Characteristics of East Asian Bond Markets, *Second Annual Conference of the PECC Finance Forum*, on Issues and Challenges for Regional Financial Cooperation in the Asia-Pacific, Hua Hin, Thailand, July 8–9, 2003, p. 9.
13. According to one analyst, the 1997 crisis would have completely different consequences had the Asian region allocated 15 percent of its accumulated reserves toward the capital account crisis. S. Ghon Rhee, *Second Annual Conference of the PECC Finance Forum*, op. cit., p. 6.
14. This section draws heavily on S. Ghon Rhee, *Second Annual Conference of the PECC Finance Forum*, op. cit. pp. 9–12.
15. The eleven EMEAP consists of China, Hong Kong, Indonesia, South Korea, Malaysia, Philippines, Singapore, Thailand, Japan, Australia, and New Zealand.
16. The eight economies are those of China, Hong Kong, Indonesia, South Korea, Malaysia, Philippines, Singapore, and Thailand.
17. Steven Glain, ''Asia Creeping Unification'', *Newsweek*, February 7, 2005, p. 32.
18. Hisatsugu Nagao, op. cit. p. 39.
19. In practice, government issues provide the benchmark for estimating term structure of interest rate. These issues are approximately default risk-free in domestic currency terms.
20. Richard J. Herring and Nathporn Chatusripitak, op. cit. p. 25.
21. Takatoshi Ito, Asian Basket Currency (ABC) Bonds, February 2003.

22. Takatoshi Ito, "Promoting Asian Basket Currency (ABC) Bonds," RCAST, University of Tokyo, March 1, 2003.
23. For the trade-off between liquidity and foreign exchange risk in the case of basket-denominated bonds, see Oiji Ogawa and Junko Shimizu, "Bond issuers' trade-off for common currency basket denominated bonds in East Asia," *Journal of Asian Economics*, Vol. 15, 2004, pp. 719–738.
24. This type of senior/subordinated bond issue was extremely popular in the post crisis period in Korea. See Gyutaeg Oh, Daekeun Park, Jaeha Park and Doo Yong Yang, 'How to Mobilize the Asian Savings within the Region: Securitization and Credit Enhancement for the Development of East Asia's Bond Market', *Korea Institute for International Economic Policy Working Paper* 03–02, 2003.
25. Many monoline bond insurance companies operate in the United States and Europe providing municipal bond insurance and pool insurance.
26. The first regional bond insurance company was established by the Asian Development Bank (ADB) in Singapore in 1995. This company was named as the Asian Securitization and Infrastructure Assurance Ltd (ASIA Ltd). Its owners consist of a diverse group consisting of financial institutions, ADB member countries, insurance companies in addition to others. Primarily, ASIA Ltd offers credit insurance to infrastructure projects of developing nations. Richard Yan Ki Ho and Chak Sham Michael Wong, "Road Map for Building the Institutional Foundation for Regional Bond Market in East Asia", *Second Annual Conference of the PECC Finance Forum*, op. cit. p. 21.
27. Korea has been an exception, being relatively active in this field. Korea set up a system of Primary Collateralized Bond Obligation in the year 2000. This program was introduced via the Korea Credit Guarantee Fund. In Hong Kong, the Mortgage Corporation, a subsidiary of the Hong Kong Monetary Authority, deals with mortgage securitization. Korea has enacted the Securitization Act in order to provide a workable legal system to facilitate the securitization of banks' nonperforming loans in addition to restructuring the balance sheet of financially troubled corporations.
28. For the benefit of institutional investors, the Hong Kong Monetary Authority issues Exchange Fund Bills and Notes. They are akin to U.S. treasury securities. The Authority started to issue smaller Exchange Fund Notes of around \$7000 per contract in 2000. These notes are popular among the general public.
29 Richard Yan Ki Ho and Chak Sham Michael Wong, "Road Map for Building the Institutional Foundation for Regional Bond Market in East Asia", *Second Annual Conference of the PECC Finance Forum*, op. cit. p. 26.
30. During the South East Asian Crisis, the Hong Kong government took a pro-active stand against the attacks of global hedge funds speculators. To protect the stock market, the "equities purchased at that time were securitized to become a fund known as Tracker Fund. All the units of the Fund were later sold to both institutional and individual investors." Richard Yan Ki Ho and Chak Sham Michael Wong, "Road Map for Building the Institutional Foundation for Regional Bond Market in East Asia", *Second Annual Conference of the PECC Finance Forum*, op. cit., p. 26.
31. In 2003, Japan had a \$5 trillion market, which is roughly equal to its gross domestic product. China, on the other hand, has less than \$450 billion in issues outstanding representing 32 percent of its GDP.[1] Marshall Mays and Michael Preiss, "Asia must put its savings to work", *Financial Times*, November 7, 2003, p. 15.
32. Marshall Mays and Michael Preiss, op. cit., p. 15.
33. In the long term there is a need to establish Asian rating agencies. Practically however, it will take a few decades before the dominance of international rating agencies could be seriously challenged.
34. It has been estimated that for Asian corporations with less favorable credit ratings, the funding costs of issuing unsecured Asian corporation bonds could be higher than 18 percent. This is why many corporations in Asia prefer to acquire collateral pledged bank loans at an interest rate varying between 5 and 10 percent. Richard Yan Ki Ho and Chak Sham, Michael Wong, "Road Map for Building the Institutional Foundation for Regional Bond Market in East Asia", *Second Annual Conference of the PECC Finance Forum*, op. cit. p.16.
35. A deep market means the bond quantity can be sold without moving prices against the seller. Breadth signifies the diversity of participants and the heterogeneity of their responses to new information.
36. Richard J. Herring and Nathporn Chatusripitak, op. cit. p. 27.
37. A free trade area is formed when a group of nations agree to eliminate tariffs between themselves, but maintain their external tariffs on imports from the rest of the world.

REFERENCES

Alba, P., Hernandez, L., and Klingebiel, D. (1999). "Financial liberalization and the capital account: Thailand 1988–1997." Working Paper, World Bank.

Allen, F. and Gale, D. (2000). *Comparing Financial Systems*. Cambridge, MA: The MIT Press.

APEC (1999). "Compendium of sound practices, guidelines to facilitate the development of domestic bond markets in apec member economies." *Report of the Collaborative Initiative on Development of Domestic Bond Markets*.

Boot, A. and Thakor, A. "Financial system architecture." *Review of Financial Studies*, 10(3): 693–733.

Castellano, M. (1999). "Japanese foreign aid: a lifesaver for East Asia?" *Japan Economic Institute*, 12 February 1999, 6A, 5.

Claessens, S., Djankov, S., Fan, J.P.H., and Lang, L.H.P. (1998). "Corporate diversification in East Asia: The role of ultimate ownership and group affiliation." Working Paper, World Bank.

Dalla, I., Khatdhate, D., Rao, D.C.K., Kali, Jun, L., and Chuppe, T. (1995). "*The Emerging Asian Bond Market*." Washington, DC: The World Bank.

Emery, R.F. (1997). *The Bond Markets of Developing*. East Asia, Boulder, Colorado: Westview Press.

Goldsmith, R. (1965). *The Flow of Capital Funds in the postwar Economy*, Chapter 2. New York: National Bureau of Economic Research.

Goldsmith, R. (1985). *Comparative National Balance Sheets: A Study of Twenty Countries, 1688–1978*., Chicago: University of Chicago Press.

Hakansson, N.H. (1992). "Welfare economics of financial markets." In J. Eatwell, M. Milgate and P. Newman (eds.) *The New Palgrave Dictionary of Money and Finance*, volume 3. London: MacMillan Press, pp. 790–796.

Hakansson, N.H. (1999). "The role of corporate bond market in an economy – and in avoiding crisis." Working Paper, University of California, Berkeley.

Herring, R.J. and Chatusripitak, N. (2000). "The case of the missing markets: the bond market and why it matters for financial development." *Asian Development Bank Institute*. Working Paper 11, Tokyo, July 2000, 23–25.

Ho, R.Y.K and Wong, C.S.M. (2003). "Road map for building the institutional foundation for regional bond market in East Asia." *Second Annual Conference of the PECC Finance Forum*, on Issues and Challenges for Regional Financial Cooperation in the Asia-Pacific, Hua Hin, Thailand, 8–9 July, 21.

Ito, T. (2003a). "Promoting Asian Basket Currency (ABC) bonds." RCAST, University of Tokyo, 1 March 2003.

Ito, T. (2003b). "Asian Basket Currency (ABC) Bonds," February 2003.

Kiang, L.H. (2003). East Asian capital markets: challenging times, A keynote address delivered at the *Euromoney 10th Asia-Pacific Issuers & Investors Forum*, 18 March, Singapore.

Levine, R. (1997). "Financial development and economic growth: views and agenda." *Journal of Economic Literature*, 36: 688–726.

Mays, M. and Preiss, M. (2003). "Asia must put its savings to work." *Financial Times*, 7: 15.

McKinnon, R.I. (1971). *Money and Capital in Economic Development*. Washington, DC: The Brookings Institution.

McKinnon, R.I. (1991). *The Order of Economic Liberalization: Financial Control in the Transition to a Market Economy*. Baltimore: Johns Hopkins University Press.

Mungthin, N. (2000). "Thai Bond market development (in Thai)." Bank of Thailand.

Nagao, Hisatsugu (2003). "Market for Asian bonds taking shape." *The Nikkei Weekly*, 24 November, 39.

Oh, G., Park D., Park, J., and Yang, D.Y. (2003). "How to mobilize the asian savings within the region: securitization and credit enhancement for the development of East Asia's bond market." *Korea Institute for International Economic Policy*. Working Paper, 3 February 2003.

Ogawa, O. and Shimizu, J. (2004). "Bond issuers' trade-off for common currency basket denominated bonds in East Asia." *Journal of Asian Economics*, 15: 719–738.

Pesek, W. Jr. (2005). "Dollar skeptics in Asia have prominent company." *International Herald Tribune*, 3 February 2005, B4.

Rhee, S.G. (2003). "The structure and characteristics of East Asian bond markets." *Second Annual Conference of the PECC Finance Forum*, on Issues and Challenges for Regional Financial Cooperation in the Asia-Pacific, Hua Hin, Thailand, 8–9 July, 21.

Sheng, A. (1994). "Future directions for Hon Kong's debt market," Speech at the First Annual Pan-Asia Bonds Summit, 29–30 November.

Sonakul, M.R.C.M. (2000). "Keynote address on the Occasion of the ADB Conference on Government

Bond Market and Financial Sector Development in Developing Asian Economies.'' Manila, 28–30 March.

Taniguchi, T. (2003). ''Asian bond market initiative.'' A keynote speech delivered at the ASEAN+3 High-Level Seminar on *Fostering Bond Markets in Asia*. March, Tokyo, *Japan*, 30.

Tourk, K. (2004) ''The political economy of east Asian economic integration.'' *Journal of Asian Economics*, 15(5): 843–888.

Tran, H.Q. and Roldos, J. (2003). ''Asian bond markets, the role of securitization and credit guarantees.'' *The 2nd ASEAN Central Bank Governor's Meeting*, Bangkok, 8, 2.

Yam, J. (1997). ''Development of the debt market, keynote address at the asian debt conference,'' *http://www.info.gov.hk/hkma/eng/speeches/speechs/joseph/speech_140797b.htm*, 14 July.