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Creating Regional Bond Markets in East Asia: Rationale and Strategy

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Creating Regional Bond Markets in East Asia: Rationale and Strategy*

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I. Introduction

Of all probable structural weaknesses, the absence of vibrant bond markets never fails to make the long list of the causes of the 1997-98 Asian financial crisis. A year after the financial crisis, Donald Tsang, financial secretary of Hong Kong, citing the failure to establish a strong and robust Asian bond market as one of the reasons of the financial turmoil in East Asia (1998), was deploring “how is that we in Asia have never been able to replicate the Eurobond market success in this part of the world.” International financial institutions such as the IMF and the World Bank invariably pointed to the absence of efficient domestic bond markets as one of the major causes of the 1997 financial crisis.

More cautious observers would argue that the absence of domestic and regional bond markets deepened the crisis in terms of output losses and dislocation of the financial sector as it precipitated a massive outflow of foreign capital. As these observers saw it, foreign bank lenders and equity holders were not able to shift into bonds with the build up of the crisis. Had there been efficient domestic bond markets, foreign investors locked in bonds could not have left East Asia as banks and other investors hurriedly did.

For example, Rhee (2000) claims that in the absence of well-developed regional bond markets, a large portion of foreign exchange reserves of East Asian countries was held in terms of the U.S. dollar or European currency denominated assets. The bulk of these securities investment were recycled back to East Asia in the form of short-term bank loans denominated in U.S. dollars in the absence of efficient domestic bond markets. This pattern of capital flows-importation of safe capital and exportation of short-term risky capital made the region vulnerable to speculative attacks.

The development of local bond markets was also highlighted as one of the major objectives of financial reforms proposed by the IMF, World Bank, and ADB for East Asian economies. In the aftermath of the 1997 crisis, repeated calls for establishing regional bond markets have been made, and responding these calls and as the part of the regional efforts at financial integration through the CMI, the ASEAN +3 have taken steps to explore the possibilities and modalities of creating Asian bonds and developing infrastructures for Asian bond markets.

Many people have repeatedly emphasized the importance of creating regional bond markets in East Asia. Several proposals have already been made regarding the strategies to develop regional bond markets in East Asia. However, despite all the calls and proposals for Asian bond markets, there is hardly any agreement on what Asian bond markets should be. Hardly has the economic rationale for creating regional bond markets been seriously questioned and discussed.

The purpose of this paper is to analyze the rationale and strategies for creating regional bond markets in East Asia. Section II examines the role and efficiency of existing regional bond markets in East Asia. This is followed by the discussion of the economic rationale and need for improving the existing or establishing new East Asian bond markets in section III. Several current proposals for the development strategies for regional bond markets are examined in section IV. A roadmap for the development of regional bond markets is in section V. Concluding, remarks are found in a final section.

II. Asian Bonds and Asian Bond Markets

II-1. What Are They?

What is an Asian bond? An Asian bond is a bond issued by governments, corporations, and financial institutions of East Asia and offered for sale in a number of countries and denominated in a currency foreign to a majority of investors. On the supply side, issuers are mostly Asian entities; on the demand side investors are global. An Asian bond market is a bond market where Asian bonds are issued and traded. Although the suppliers of these bonds are mostly borrowers from East Asia, the buyers include global as well as regional investors. Because of this global investor base, Asia bond markets will not be geographically segmented markets: they will inevitably be linked up with global bond markets.

At this stage of financial liberalization and opening, few of East Asia's emerging market and developing economies will be prepared to issue bonds denominated in their own currency in global as well as regional bond markets, since they do not want to allow non-residents to hold large amounts of their currency for fear that such an internationalization of the local currency could erode their control over monetary policy and expose them to currency speculation. Bond issues in East Asia regional markets would therefore be denominated in major international currencies such as the U.S. dollar, Yen, Euro, and some of the currencies of the East Asian countries with domestic bond markets open to foreign borrowers such as Hong Kong and Singapore.

For analytic purposes, it could be convenient to classify Asian bonds in terms of the currency of denomination such as Asian dollar, Asian Yen, and Asian Euro bonds, Instead, a multiple of regional bond markets, both off-shore and on-shore differentiated by the currency denominations will come into existence. They would be separate but interdependent bond markets. Asian bond markets will be accessible to non-East Asian borrowers, although the majority of issuers in these markets are likely to be East Asian corporations and governments, and other public institutions.

Issues of Asian bonds are likely to be private placements that are offered by underwriters via dealers to institutional and private investors. Asian bond issuers will be subject to securities regulations of the countries where they are offered for sale. These regulations often require disclosure of a large volume of firm specific information and data in a prospectus. Some of these bonds will be listed in regional financial centers because the listing tends to improve the liquidity and hence marketability of a bond, although most of the Asian bonds are likely be registered securities and traded in the over-the-counter market.

A pressing question facing the planners of the Asian bond market development is: Where are going to be the major trading centers for Asian bonds? In view of the European experience, it appears that countries with deregulated and open financial markets and with an efficient system of payment and settlement will emerge as major regional trading centers for Asian bonds.

Efficiency of Asian bond markets would hinge on well developed regional systems of payment, clearing, settlement and depositary services that ensure real time gross settlement with delivery versus payment for cross-border transactions of bonds. Depth and liquidity of Asian bond will also improve if regionally specialized rating agencies which are global rating firms are established.

At present, the requisite infrastructures for regional bond market hardly exist and it may take years to build them. If the future prospects of Asian bonds markets are promising, some of the countries actively seeking to be regional financial centers will take the lead in developing region wide financial infrastructures. Cooperative efforts at the regional level for integrating different local clearing and settlement systems in different countries are needed, but may not be easily organized and may not succeed even if they are organized. Creation of Asian bond markets, however, may serve as a conduit through which regional cooperation to coordinate financial infrastructures can be achieved.

II-2. Regional Bond Markets in East Asia

The current debates on and numerous proposals for creating Asian bond markets many impart the impression that East Asia has no regional bond markets where regional entities can raise long-term capital by issuing bonds denominated in East Asian currencies. This impression is a mistaken one, for there are a number of offshore and on-shore regional bond markets located in Tokyo, Hong Kong, and Singapore.

Most of these markets have a relatively small investor base. They are illiquid and inaccessible to a majority of East Asian borrowers because of the restrictions on currency trading and capital account transactions in individual East Asian countries and high issuing costs. Most of the investors demand only high quality papers.

Tokyo has two off-shore bond markets: The Samurai bond market where foreign borrowers can issue yen-denominated bonds and the Shogun bond market open to foreigners to issue bonds denominated in foreign currencies. In Hong Kong, foreign borrowers can issue bonds in its domestic bond market. In 2002, the Central Money Market Unit was established to facilitate settlement, clearing, and depositary services related with the secondary market trading of these international bonds.

Singapore has an offshore Asian dollar bond market where most of the issues are denominated in U.S. dollars (92 percent in 2001). Singapore has also opened its domestic corporate bond markets to foreign borrowers since 1998.[1] Between the opening of the domestic Singapore dollar market to foreign issuers in August 1998 and the first quarter of 2002, more than S$ 7.2 billion of Singapore dollar bonds has been issued by foreign entities. (Ngiam

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[1] MAS Notice 757.

and Loh 2002) Because of the currency trading restriction, foreign issuers must convert their proceeds into a foreign currency when they are taken out of the country.

Financial deregulation has also increased the opportunities for cross border bond financing and trading in Korea. For example, the Korean authorities deregulated many of capital market activities so that foreign borrowers can issue bonds denominated not only in won but also in other currencies. The deregulation is yet to attract foreign borrowers: the number and amount of foreign issues have been negligible. As in Singapore, the won proceeds have to be converted into a foreign currency because of the policy of not allowing internationalizing of the won. Sovereign issuers, followed by supra-national agencies and then by other government guarantee entities. Since most of the East Asian countries have been able to maintain fiscal balance, the supply of sovereign bonds has been small. The supply of corporate bonds in these regional bond markets has been even smaller, largely because of the limited number of investment grade corporations in and the bank denominated financial system of East Asia.

Tokyo has been a candidate for the trading center of an Asian yen bond market given its size and the potential of the yen as a major international currency. However, Tokyo has yet to develop into a regional financial center as it has failed to build the institutional infrastructure required for such a market. The prospects for internationalization of the yen as an international transactions and reserve currency also do not appear to be promising (ADBI, 2001).

The cost of raising funds through regional capital markets is likely to be higher in East Asia compared to global capital markets as evidenced by recent developments in the Japanese Samurai and Shogun bond markets. Although it is expected that foreign borrowers would take advantage of the low interest rates and continuing deflation in Japan, the issuance of Samurai bonds has not reached the pre-crisis peak level (¥ 37.9 trillion) in 1996, while no Shogun bond has been issued since 1994. One of the most important reasons for these inactivities is simply the higher cost of borrowing through these markets than the Euro-yen, Euro bond, or Yankee bond markets. Rhee (2001) shows that the difference in all-in-cost to a sovereign borrower of ¥ 20 billion between the Samurai and Euro-yen bonds is about 7 basis points (¥ 14 million). The lead time required from mandate to launch takes a few days in the Euro-yen issue, whereas it takes two to three months in the Samurai bond issue. Foreign issuers are also subject to a cumbersome regulation that requires preparation of the prospectus in Japanese.

Inefficiency of the clearing and settlement process is another reason for the high cost of borrowing through the Samurai bond market. The transactions of Euro-yen bonds can be settled through international central securities depositories such as Euroclear and Clearstream Banking, whereas the Samurai bond market is not eligible for such global clearing and settlement. Furthermore, a regional clearing network in East Asia is yet to be created to link the Tokyo's clearing system with the region's financial centers such as Hong Kong and Singapore.

III. The Need and Rationale for Creating Asian Bond Markets

III-1. Overview

Since the 1997-98 crisis, there has been a growing regional movement toward financial and monetary integration in East Asia. The Chiang Mai Initiative reflects such regional efforts for integration. In contemplating creation of regional bond markets, East Asian policymakers will be faced with two fundamental questions related to benefits and costs of building regional bond markets and financial infrastructures. Will regional bond markets help improve allocation of resources in East Asia? Will the development of regional financial markets contribute to regional financial stability and integration? There is also the question of whether the East Asian bond markets could be more efficient in diversifying sources of corporate financing and opening new investment opportunities than global bond markets.

At this stage of development, there is no guarantee that regional efforts, even if they can be organized, could succeed in fostering regional capital markets that are competitive vis-à-vis global capital markets in North America and Europe. With continuing globalization of financial markets and advances in financial technology that allow financial firms in international financial centers to reach investors and borrowers in remote corners of the world, questions also arise as to the need and rationale for creating regional capital markets in East Asia. However, there are a number of reasons why ASEAN+3 should join forces to develop regional bond markets. One reason is related to efficiency gains expected from regional bond markets.

III-2. Efficiency Gains

Given its dynamism and the availability of a large pool of savings, East Asia could support large and efficient regional bond markets, which are as competitive as global bond markets. In principle, one can always argue that East Asia will benefit from efficient regional bond markets as they provide alternative and possibly cheaper sources of financing to domestic and global bond markets to East Asia's sovereign and corporate borrowers. The development of these markets would over time also help transform the bank-dominated financial system into more balanced systems where the bond market assumes a large share of corporate financing in East Asia. Institutional and private investors would also gain from deep and liquid regional bond markets as a greater variety of bond instruments could facilitate management and improve the risk-return profiles of their asset portfolios.

In particular, institutional investors such as provident and pension funds, insurance firms, and mutual funds may be able to diversify their portfolios into holding Asian bonds. It may also be true that Asian bond markets will be more effective in evaluating and monitoring investment and other corporate activities of East Asian firms as the participants would be more familiar with and have access to more information about regional issues in East Asia.

The benefits from broad and deep regional markets in terms of efficiency gains could be substantial. Skeptics of the Asian bond initiative would, however, argue that these benefits would be greater if these regional markets are fully integrated with global markets. It is therefore important to realize that regional initiatives for establishing Asian bond markets would be justifiable and hence easier to garner global support insofar as they serve as a building block for the development of globally integrated bond markets. This point is important because of financial market opening and deregulation of capital account transactions throughout the global economy, regional as well as domestic bias in portfolio investment is likely to be dissipated. With the access to better and more reliable information on macroeconomic conditions and activities of individual corporations in both developed and developing countries, institutional and private investors will increasingly search out investment vehicles from different regions and countries to diversify more efficiently risks involved in portfolio investment (Eichengreen and Park 2003).

This informational advantage enjoyed by the regional bond markets may not be as significant as it may appear in view of the increased accessibility to not only macroeconomic but also sectoral and corporate information throughout East Asia as a result of the improvement in corporate governance, disclosure, and information technology.

There is also no reason to believe that the East Asian bond market will be better placed to safeguard the countries in the region from the recurrence of financial crisis in the future, unless it can be shown that this market will be less susceptible to speculation, herding and other market failures than international financial markets have been. Finally, efficiency considerations may in the end require integration of the East Asian regional bond markets with global bond markets. Given the size and efficiency disadvantages, it is difficult to argue that such regional bond markets could weather through the competitive pressure from global bond markets.

With the improvement in access to information, harmonization of legal and regulatory systems and standards, and advances in financial technology that allow investors from the remote corners of the world access to capital market services offered by international financial centers, future prospects for developing robust capital markets in East Asian countries are not promising. One of the implications of globalization of finance is that East Asian countries will find it difficult to convert their bank-oriented financial systems into market oriented ones. Another implication is that these bank-oriented systems will be increasingly specialized in catering to the credit needs of small and medium sized firms and households. This is because growing number of firms will leave the banking sector as they gain access to local capital markets. Some of these first comers will then migrate to international capital markets as they grow and meet requirements for cross-listing on and capital raising from international exchanges.

III-3. Non-existence or Underdevelopment of Domestic Bond Markets

The proponents of the Asian bond initiative point out that the lessons of the 1997 Asian currency crisis provide an important reason why East Asia needs to develop regional bond markets. As have been argued by many including Krugman(1998) and Aghion, Bacchetta and Banerjee(2001), the 1997 Asian crisis can be characterized as a twin crisis where a currency crisis aggravated by a banking crisis developed into a full blown economic crisis. In fact, incentive distortions in the bank dominated financial system were at the bottom of the Asian crisis. Implicit guarantees on bank deposits by governments and ensuing moral hazard problems brought about the syndrome of over-borrowing and over-investment which in turn resulted in a massive increase in non-performing loans. In these bank-dominated economies, banks also served as the main channel through which foreign banks and nonblank financial institutions lent to local borrowers in East Asia.

With the rapid increase in non-performing loans and the growing fear of currency depreciation, foreign investors began questioning the ability of local banks to honor their external debts. When the banks were unable to rollover their foreign currency loans, they became insolvent, precipitating a major financial crisis. Not only was the bank dominated financial system at the origin of the crisis but it proved to be even more devastating once the crisis broke out as the firms that had been dependent upon bank loans could not find alternative sources of financing.

Table 1 compares the size of the capital market in each region/country in year 2001. The share of bank assets in the financial system is higher in the Asian region than elsewhere while that of debt securities the lowest. The bank dominance in East Asia can be also confirmed from Table 2 that shows heavy dependence of corporations on bank financing.

Since the 1997-98 East Asian crisis, many counties in the region have given a priority of financial reform to developing domestic bond markets in order to diversify sources of financing and also to strengthen stability of their financial systems. However, except for Japan and China, other smaller East Asian countries may find it difficult to develop domestic bond markets that are broad and deep in terms of the variety of instruments available and market participants. This is because these economies are relatively small in size so that they cannot support large capital markets with scale economies and cost competitiveness. The costs of constructing financial and other institutional infrastructures required for supporting domestic bond markets could be prohibitively expensively to many emerging market and countries in the region. Unless local bond markets are competitive in terms of the cost of borrowing, local borrowers would avoid bond market financing in favor of bank financing.

From the standpoint of the East Asian borrowers, issuing bonds in the regional bond market is just one financing option out of several possible alternatives including bank loans and equities. On bond financing alone, East Asian borrowers have access to domestic, international and regional bond markets. Then, the question naturally arises as to the role of regional bond markets when there already exist domestic and international bond markets. There are several reasons why local borrowers may prefer cross-border bond financing in East Asia.

When the borrowing cost in the domestic market rises due to imbalance between the supply and demand for funds, it may be less expensive in terms of cost and availability of funds to go cross border even when the exchange rate risk and other issuing costs are taken into consideration. Imbalance in demand and supply might occur in a particular sector of the domestic bond market even though there is sufficient investment demand for domestic bonds as a whole. For example, changes in asset preferences such as a flight to quality in the domestic bond market may increase the spread on sub-investment grade bonds. If a similar flight does not take place in international financial markets, then cross-border financing may be less costly. Likewise, when the supply of bonds of a particular industry or sector increases substantially, the overall amount of the idiosyncratic risk of these issues may become too large to be borne by the pool of domestic investors alone and as a result raise their spreads disproportionately. In this case, the issuers can reduce the borrowing cost by dispersing the idiosyncratic risk to the international investor pool where the similar risk might not be as large as in the domestic market.

This is the risk diversification is similar to the credit default swaps provided by foreign investors.

One may argue that even under these circumstances, the need to go cross border decreases if foreign investors can actively participate in the domestic bond market. The reality, however, is that in most East Asian countries foreign participation in the domestic bond market is limited for a number of reasons. In some countries, the domestic bond market is at its nascent stage of development. In particular, the corporate bond markets is virtually non-existent.

Other countries may have active domestic bond markets, but foreigners may not have access to these markets due to capital controls. Korea has an active domestic bond market, which was opened to foreign investors since the 1997 crisis. Yet, foreign participation in the domestic bond market has been minimal. As shown in Table 4, foreigners held only 0.11% of total amounts of domestic bonds outstanding as of end 2002. Compared to the share of foreign holdings of domestic equities, this is a very low number. Regulatory restrictions and the lack of market supporting institutions are responsible for the small foreign holdings of domestic bonds.

Transparency of corporate issuers may be in question due to inadequate accounting standards or practices and improper disclosure requirements. Despite the large volume of outstanding issues, the bond market may not be as liquid as the foreign investors would like. Bankruptcy laws and procedures may not be adequate enough.

Taxation is also an important factor. Some countries including Korea impose withholding taxes on interest income earned by non-residents as well as residents. On the contrary, countries like the U.S., Japan and Singapore grant non-residents exemption from withholding taxes on interest income. There is no withholding tax on Eurobonds. Despite tax treaties to avoid double taxation, tax withholding is a barrier to cross border investors. Sometimes, it lowers after tax returns negatively, making foreign investors turn away.

The lack of hedging instruments such as currency swaps, currency options and forward contracts has also discouraged to cross border investors to acquire East Asian domestic bonds. Sometimes, long term currency swaps to cover the exchange risk involved with the long-term securities investment are not available at all. Even if they are available, the currency swap market is so shallow that even a small change in the supply and demand causes a large swing in the swap rates, which in turn may significantly lower the covered return on cross border fixed income investments.

Credit rating is another important factor. Most of the domestic bond issuers in East Asia are not rated by international credit rating agencies. Since the investment policy of most of the western pension funds and the investment funds requires that bonds to be included in the portfolio receive investment grades from international credit rating agencies. Since the number of East Asian issuers with investment grade rating is not likely to increase the foreign demand for these domestic bonds will remain small.

There is no denying that creating efficient and vibrant domestic bond markets that are closely linked with global bond markets is one of the priorities of financial reform. However, greater opportunities to raise funds at low costs in regional and international bond markets could provide incentives to carry out the domestic financial reform and to creditworthy firms to migrate to these markets. In this respect, creation of regional bond markets can be beneficial to both East Asian savers and investors as it improves efficiency of the domestic financial system.

III-4. Export of Risky Assets and Import of Safe Assets

The development of regional bond markets has been promoted in order to channel more regional savings to investment than before in East Asia. As we can see in Table 3, total savings of East Asia as a whole were more than 30 percent of its total GDP before the Asian crisis, but the region's investment demand was so strong that it rendered East Asia net capital importers. After the 1997 crisis, most of the East Asian countries turned from net capital importers to net capital exporters as they started accumulating current account surpluses, which were added to their foreign exchange reserves. As a result, total reserve holdings of 13 East Asian economies amounted to $1.2 trillion (Table 4 and Table 5). Most of these reserves have been invested in safe and liquid assets such as U.S. Treasury Bonds and supranational bonds. At the same time, East Asian borrowers have been borrowing from international financial markets at higher costs: East Asia as a whole has been an importer of safe assets and an exporter of risky assets.

Such a pattern of capital flows also impedes the development of capital markets in the region as has been pointed out by Oh et al (2003). As the imports of safe assets and exports of risky assets deprive East Asian investors opportunities for better management of the risk-return trade-off of their asset portfolios.

The current pattern of capital flows may create a highly vulnerable and unstable financial environment in East Asia, raising the likelihood of recurrence of financial crisis, regardless of the amounts of their foreign exchange reserves holdings. Foreign investors acquiring risky East Asian assets can be much more sensitive to any changes that are perceived to increase credit risks of their portfolio investments East Asian investors. Even a small shock can easily change the direction of capital flows from massive inflows to massive outflows, and the sudden reversal of capital flows can set off a currency crisis. To avert a possible currency crisis the countries experiencing the reversal may attempt to increase their foreign reserve holdings by importing high cost foreign capital. This importation can be self-defeating as it results in more investment in risky East Asian securities by western investors, thereby making these economies more vulnerable to future crises. If, on the other hand, most of risky East Asian securities are held by investors from the region, then the degree of the reversal would tend to be smaller because these regional investors would be more discriminating in responding and hence less susceptible to a panic and herding related to financial market turbulences.

This advantage from constructing regional bond markets in East Asia, which has captured the interest of the proponents of the Asian Bond initiative, is that these markets will help stabilize inter - as well as intra-regional capital movements, thereby erecting a sturdy shield against financial crisis and speculative currency attacks. The reasoning behind this argument is that since market participants in Asian bond markets have access to better and more information and data on regional governments and corporations, they would be less prone to irrational panic and bank run syndrome in managing the risks of their investments. Knowing that their withdrawal could set off a crisis and victimize themselves, Asian investors, unlike investors from outside of the region, will be cautious in pulling their investments out of the region.

The market participants would also be better positioned to separate unsound firms from the sound and to differentiate systematic risks from the non-systematic. This improvement in the quality and quantity of market information for portfolio investment in regional bond instruments will then help ward off contagion of a financial crisis and moderate volatility in financial prices in the region. However, the experience with the 1997-98 crisis does not necessarily support this argument, which hinges on regional bias in portfolio investment.

Suppose that there existed a well-developed Asian Yen bond market before the crisis. Would such a market have prevented or made the consequences of the crisis less painful? It would be reasonable to assume that investors in both regional and global markets have the same pattern of behavior as far as their credit risk management is concerned. In fact, there is little difference between the Asian Yen and other global bond markets in that investors in these markets buy only high quality bonds. A large amount of financing from local bond markets relative to bank financing would have made East Asian economies less vulnerable to speculative attacks, but it is not clear whether the size of the Asian Yen bond market would have made any difference.

Institutional and private investors from Japan may have preferences for regional bonds as they are more familiar and know better regional environments. To the extent that they have better and more country specific as well as firm specific information of East Asia, they would have been much more restrained than investors from outside of the region in withdrawing their investments clearing the 1997-98 financial crisis. This was not the case.

Indeed, the lending behavior of Japanese banks was hardly different than that of western banks during the crisis period: the argument based on differences in the quality of information accessible to regional and western investors does not necessarily hold water.

While the emergence of deep and liquid regional bond markets in East Asia will serve as a shield against future financial crises in East Asia, it is also worthwhile making a rather obvious point that neither the augmentation of the supply of Asian bonds nor the construction of Asian bond markets will necessarily help ease the burden of East Asian emerging market economies of reducing the currency mismatch problems their corporations and financial institutions are exposed to. This is because few of sovereign or corporate bonds issues will be denominated in their local currency. As will be discussed in the following section, this and other regional as well as domestic financial impediments underscore the primary importance of developing domestic bond markets in conjunction with the development of regional bond markets.

Construction of regional bond markets will not change to any great degree the pattern of inter-regional capital flows in East Asia in which East Asian countries import mostly safe capital from and export risky capital to the U.S. and Europe. The total amount of bonds and other securities issued by U.S. and European corporations and government that are held by East Asian government in the form of foreign reserves and also by private investors is largely determined by macroeconomic conditions governing current account developments of East Asia, the U.S. and Europe. As long as East Asia as a whole continues to run current account surpluses as it has in the past, in particular vis-à-vis the U.S. then either the government or the private sector is bound to accumulate foreign securities, both public and private. The increase in diversity and depth of Asian bond markets will not necessarily increase the share of Asian bonds in the aggregate East Asian asset portfolio.

As for the asset composition of foreign reserves of East Asian countries, the increase in the supply of Asian bonds, in particular East Asian sovereign and high quality private bonds, and the expansion of the secondary markets for these instruments could over time reduce the share of U.S. dollar and Euro denominated securities. However, as long as the current account imbalances between East Asia and the rest of the world persist, the decrease in the share of U.S. and European securities will be made up for by an equal increase in private holdings of these securities.

III-5. Regional Bias in Portfolio Investment?

When East Asian borrowers are looking for opportunities for cross border bond issuance, global bond markets emerge as alternatives to regional bond markets. As a matter of fact, there are already well-developed and efficient global bond markets such as the Eurobond market and the Yankee bond market. Then, the following question naturally arises: why do we need to develop regional bond markets instead of using the existing global bond markets. Regional bias in portfolio investment, if it is pronounced, may provide justification for creating Asian bond markets. Although there is dearth of information, it is reasonable to assume that East Asian governments, corporations and individual savers have taken advantage of capital market liberalization to place in part their funds in bonds and equities issued by East Asian borrowers they are familiar with. McCauley, Fung and Gadanecz (2003), for instance, show that the aggregate amount of bonds issued by East Asian borrowers over the three-year period from April 1999 to August 2002 amounted to $41.2 billion; East Asian investors then bought up 46 percent of these primary issues. East Asian governments and government agencies issued more than 40 percent of these bonds.

The authors present the East Asian share of the primary market distribution as a piece of evidence for a relatively high degree of integration among East Asian capital markets. Crockett (2002) makes a similar argument. In gathering these data, the authors admit, "we solely rely on second hand reports from underwriters that are at best approximation"(p.84).

Aside from their quality, we believe, their data could not identify the final buyers of these East Asian bonds. It is quite possible that East Asian financial institutions as well as subsidiaries of foreign investment banks purchased the bonds and brokerage houses located in Hong Kong, Singapore and Tokyo purchased the bonds for their investors from America and Europe. It is in general difficult to ascertain whether residents in one country buy bonds issued by the entities in their own country or whether they buy bonds issued by borrowers in other countries.[2]

However, there is a piece of evidence that casts doubt as to the ownership composition of McCauley et al. Japan, which is the largest exporter of capital of the world, has acquired more Latin American bonds than Asian ones in recent years. In 1996, the share of Asian bonds

[2] We owe this point to Charles Adams of the IMF

in the total overseas portfolio investment of Japan was 3.2 percent as opposed to 8.3 percent for Latin America; by 2001, the Asian proportion fell to 1.3 percent (14.1 percent for Latin American bonds). Between 1999 and 2001, Japanese holdings of Asian bonds fell in an absolute amount by 250 billion yen ($200 million). (Table 6)

Questions then arise as to the identity of these investors from East Asian countries that invested in 46 percent of primary issues of East Asian paper over the 1999-2002 period as claimed by McCauley et al. Since investors of East Asian countries including Japan have expressed preference for safe assets as argued below, it is difficult to believe that residents of Hong Kong, Singapore and Korea bought more East Asian bonds than Japanese investors during the same period.

Crockett (2002) argues that East Asia has been importing safe assets while exporting risky ones. Foreign direct investment, portfolio equity, bad loans and bonds are risky East Asian assets acquired by American and European investors. East Asian investors, on the other hand, have been importing low risk securities such as U.S. Treasury bonds, U.S. agency paper and interbank deposits. If East Asia has been importing safe assets and there has been a limited variety and quantity of safe bonds issued by East Asian borrowers, then it is difficult to accept the data provided by McCauley et al. or Crockett's argument that among the buyers of East Asian bonds, East Asian accounts take almost half of the issues which are relatively more risky assets than U.S. bonds.

East Asian investors have been relatively more risk averse than their U.S. and European counterparts largely because they have not developed or acquired sophisticated risk management technologies and have a limited access to information about global as well as regional borrowers. Many of the financial institutions of East Asian emerging market economies became highly vulnerable to financial crisis, and some of them went bankrupt, as a consequence of the poor risk management of their asset portfolios, that led to large investments in risky bonds issued by other emerging market economies' borrowers. The lessons of the 1997 crisis and the subsequent tightening of regulations on assets management have made East Asian investors more conservative in managing their asset portfolios than before.

This risk averseness can be gleaned from the large increase in East Asia's demand for U.S. government and government agency bonds in recent years and reduced share of Asian securities in the Japanese aggregate investment portfolio. While the percentage of East Asian equities and bonds in the Japanese aggregate portfolio declined substantially, the share of capital market instruments issued by U.S. and European entities rose to 90 percent of total foreign assets held by Japan in 2000 and 2001.

III-6. Can Regional Bond Markets be a Solution to Double Mismatches?

International bond markets such as Yankee, and Eurobond markets are not readily accessible to most of the East Asian borrowers because of their low credit ratings. In order to issue bonds in the international bond markets, issuers need to get investment grade ratings from international credit rating agencies. It is because most of the institutional investors in these markets including pension funds and investment funds are operating under the mandate that bond issues to be included in their portfolio must be rated by international credit rating agencies and that they must have investment grades. For most of the East Asian corporate issuers, it is not possible to get investment grades from international credit rating agencies although they can get investment grade credit ratings from their domestic credit rating agencies.

There is usually a large gap between the domestic ratings acquired from domestic credit rating agencies and the international foreign currency ratings on domestic corporations acquired from global credit rating agencies. It is because international foreign currency ratings are restricted by the sovereign ratings of the countries where the corporations are located. In general, sovereign issuers get the highest credit rating (AAA or its equivalent) when their domestic currency bonds are rated by local credit rating agencies. However, their international bonds denominated in foreign currencies usually get lower credit ratings. Many East Asian government issues excluding Hong Kong, Japan and Singapore belong to the sub-investment grades or the lower range of the investment grades. It means that most of their corporate issuers are likely to belong to the sub-investment grades when rated by international credit rating agencies, which in turn means that they do not have access to international bond markets by themselves.

The Yankee and other foreign bond markets impose even stricter disclosure rules and public offering requirements than the Eurobond market. Most of the Asian corporate issuers do not have access to the Samurai bond market under the current regulation. As a result, there is certainly a case for regional bond markets if these markets can help the local issuers with opportunities to overcome the credit quality gap and provide them with opportunities of cross border financing with attractive costs.

The regional bond market initiative promoted by the ASEAN+3 could reduce the credit quality gap as it will encourage creation of regional credit rating agencies specialized in rating East Asian corporate issuers. This regional specialization may uncover more creditworthy regional borrowers than global rating agencies because the regional agencies will be better informed about regional economies, social and political developments and have more resources to gather and analyze firm specific information so that they would rely less on the sovereign ratings of the countries where these East Asian firms have their domicile.

Regional bond markets could be organized in a way that will serve the cross-border financing needs of many East Asian corporations which cannot issue bonds in global bonds markets. Asian bond markets could be structured to accommodate many Asian corporate bonds with a medium grade or belonging to the upper range of the sub-investment grades such as BBB, BB, and B, thereby making them complementary to global bond markets.

Once these markets for bonds denominated in key regional currencies are established, it is also expected that regional financial derivative markets for currency swaps and options will come into existence to facilitate the issuance of bonds denominated in the local currency for many East Asian emerging market economies. The development of these markets will then help ease the currency mismatch problem.[3]

V. Strategies to Create Regional Bond Markets

V-1. Current Proposals

Several proposals have been made regarding the strategies for and modalities of creating Asian bonds and Asian bond markets including those by Chaiprovat et al (2003), Ito (2003) and Oh and Park (2003). These proposals share some of the following three basic elements:

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[3] The original sin problem is not confined to East Asian borrowers. It applies to all developing countries. Bond issuance in international bond markets is dominated by five international vehicle currencies including the U.S. dollar, the euro, the Japanese yen, the Swiss franc and the pound sterling. As we can see in Table 8, the international debt securities denominated in these five major currencies explain more than 97 percent of the total international debt securities outstanding as of the third quarter of 2002. According Eichengreen, Hausmann and Panizza (2003), of the nearly \$5.8 trillion outstanding securities placed in international markets in the period 1999-2001, \$5.6 trillion was issued in these 5 major currencies. Of the \$1.3 trillion debt issued by international organizations and by residents of countries other than the countries issuing these five major currencies, only \$0.2 trillion debt was denominated in currencies other than these 5 currencies.

securitization, credit guarantee and currency basket.

All of these proposals advocate the use of structured financing like securitization as a means to overcome the maturity mismatch (the credit mismatch) problems and/or to create an Asian basket currency bond. In order to further increase marketability of Asian bonds, the use of credit enhancement mechanisms such as credit guarantees is recommended. These bonds are either denominated in an Asian currency unit or ACU(Chaipravat et al(2003)) help or an Asian basket currency(Ito(2003)). Oh and Park (2003) argue that the development of currency swap arrangements would be a better strategy to enable East Asian borrowers to raise funds in their own local currency. This section evaluates these proposals.

V-2. Narrowing the Maturity and Credit Quality Gap

Since the maturity mismatch problem arises mainly from the credit quality gap, it can be mitigated by narrowing the gap between the credit quality of borrowers and that demanded by investors. The credit quality gap could in turn be reduced through structured financing schemes like securitization and credit enhancement and credit guarantee.

- **Securitization**

Securitization is a form of structured financing in which securities are issued through repackaging a series of assets that generate cash flows in a way that separates these assets from the credit profile of the company that originally owned them. Securitization can take on a broad variety of attributes depending on the structure, the underlying assets, the way underlying assets are managed and the types of securities issued.

Potential benefits of securitization include cost efficient funding, credit risk mitigation, diversification of funding sources, tenor and currency management. In the majority of cases, the real motivation for securitizatoin is more likely to be risk mitigation and de-leveraging of the balance sheet at the cheapest cost rather than just access to cheap funding.

Securitization can be helpful in resolving the maturity mismatch problem in several ways. Securitization allows the creditworthiness of the asset-backed securities (ABS) to be independent of the creditworthiness of the company that originally owned the underlying assets. The credit assessment of asset-backed securities is made solely on the basis of the cash flows created by the underlying assets.

In addition, securitization schemes such as collateralized bond obligations (CBOs) and collateralized loan obligations (CLOs) can reduce the overall credit risk of the pool of collateralized bonds by diversifying the idiosyncratic credit risk of each borrower. This coinsurance effect from pooling debt instruments issued by companies with different risk profiles enables the CBO scheme to raise more funds than the sum of the funds each company can raise by itself.

Despite the benefits from credit risk diversification and co-insurance, securitization by itself cannot remove the credit risk, through it enables the issuers to sell the credit risk at a lower cost. It reduces the overall cost of raising funds by creating securities whose credit risk profile is tailored to the preferences of the customers. In particular, bonds with a higher credit rating than the underlying assets can be issued by using the senior/subordinate tranches. Generally, senior bonds can receive credit ratings higher than the collateralized assets, and hence can be absorbed by the corporate bond market.

In addition to senior/subordinate tranching, other credit enhancement methods such as over-collateralization, spread accounts, cash collateral accounts, credit swaps and credit guarantees can be used to enhance the creditworthiness of the asset-backed securities and make them attractive to even a greater range of investors.

An example of the use of securitization to promote Asian bond markets is the two-tier securitization scheme for financing small and medium enterprises (SMEs) suggested by Oh and Park(2003). As is shown in Figure 1, this securitization scheme consists of two steps of the securitization process: the first step in each of capital importing countries and the second in the capital exporting country.

In the first step, a local special purpose company (SPC) is set up in each of the capital importing countries to securitize SME loans or bonds. The loans and bonds to be collateralized may be denominated in the local currency in order to eliminate the currency mismatch problem. In order to minimize the moral hazard problem, the junior tranche bonds will be assumed by local institutions which are in charge of selecting the firms to be included in the CLO or CBO pool. The senior tranche bonds are sold in the local bond markets and the remainder will be transferred to the second SPC established in the capital exporting country. The senior tranche bonds may be guaranteed by the local credit guarantee agency to increase their marketability.

In the second step of the securitization, the SPC established in the capital exporting country issues CBOs using the senior bonds it acquired from the SPCs located in capital importing countries. Once again, different tranches of bonds will be issued to better fit the preferences of investors. In order to further enhance creditworthiness and marketability, the senior tranche bonds may acquire credit guarantees.

The securities issued by the SPC can be denominated in one of the international vehicle currencies, in the currency of the capital abundant East Asian country, or in the basket currency unit. The list of underlying assets can be expanded to government bonds, non-performing assets and corporate bonds.

There are, however, a few stumbling blocks in using securitization schemes to develop Asian bond markets. One barrier is that the legal framework facilitating securitization differs widely among East Asian economies. The World Bank report (2002) recognizes wide differences in the legal framework regarding securitization. For example, while the common practice of Hong Kong, Singapore and Malaysia that acknowledges trusts already provides the institutional foundation required for securitization, civil law countries need to enact the securitization law that recognizes the pass-through status of the special purpose companies and the true sale nature. Another barrier is different accounting standards and tax treatments for special purpose companies in different countries. With the exception of Japan, Korea, Hong Kong and Singapore, issuers and investors are not familiar with securitization schemes. Availability of the previous record or historical data is also an important factor for the success of securitization deals.

- **Credit Guarantees**

Many Asian bonds are likely to belong to the junk bond category by the standard of the international bond market. A large number of East Asian firms do not have credit ratings good enough to issue bonds in the domestic bond market let alone international bond markets. As a result, even in the securitization scheme, the amount of funds that can be raised through senior bonds is likely to be quite limited. In order to increase the portion of securities that can be absorbed by the market, credit guarantees can be utilized. Credit guarantees on timely payment of interests and principals enhance the creditworthiness of bond issues. Because these issues with full credit guarantee can acquire the credit rating of the guarantee agency. Credit guarantee agencies may provide coverage for the entire issue or a specific tranche.

Credit guarantees can be obtained from private credit guarantee agencies like mono-line insurance companies and multi-line insurance companies, government agencies, international financial institutions. However, the existing credit guarantee agencies may not be suitable for providing credit guarantees for regional bonds. For example, Japan Bank for International Corporation (JBIC) cannot provide credit guarantees on corporations or SPCs. JBIC can only guarantee bonds denominated in the Japanese yen. Asian Development Bank and JBIC are restricted from providing guarantees to bonds issuers from advanced economies. As a result, regional securitization deals involving issuers from Japan or Korea cannot get credit guarantee services from these official sector agencies.

Private credit guarantee agencies in general prefer dealing with credit risk alone and as a result are reluctant to provide currency swaps together with credit guarantees while more effective schemes for regional bonds may require currency swaps to overcome the currency mismatch problem in addition to credit guarantees. Private guarantee agencies might also have limited capacities to provide guarantees.

In order to provide credit guarantee services for Asian bond markets more efficiently, it would be useful to establish an international organization to provide regional credit guarantees. The operational mode (mono-line or multi-line) and the governance structure (an international agency or a private company) need to be discussed and negotiated. The regional guarantee agency may also provide currency swaps.

V-3. Resolving the Currency Mismatch

Depending on the types of bonds and market arrangements to be created, regional bond markets could assist issuers to overcome the currency mismatch problem though they cannot provide a fundamental solution to the problem. In this section, we evaluate and discuss various proposals for resolving the currency mismatch problem in the context of regional bond markets.

- **Currency Basket Bonds**

Chaipravat et al (2003) and Ito (2003) propose issuance of currency basket bonds as a way to overcome the currency mismatch problem. For example ABC (Asian Basket Currency) bonds suggested by Ito (2003) are constructed as bonds backed by a mix of local currency government bonds issued by East Asian countries. The value of the ABC bonds will therefore be determined by the weighted value of the currencies comprising the pre-specified basket.

While in theory, the currency basket bonds could moderate the currency mismatch problem, it is not clear whether international investors are willing to hold such bonds. Currency basket bonds might be acceptable to international investors as they help diversify currency risks. The size of the benefit from diversification depends on the degree of correlation among the underlying currencies. As shown in table 9, East Asian currencies tend to be positively correlated with each other, suggesting that the diversification effect of the currency baskets comprising East Asian currencies alone might not be large enough to attract investors. Moreover, as can be seen in the second panel of table 9, the correlation between the East Asian currencies increases in times of turbulence like the 1997 Asian crisis due to the contagion effect, further reducing the diversification benefit.[4]

In order to examine the magnitude of the diversification effect a few currency baskets comprising East Asian currencies are constructed and their variability is compared their volatility with that of the major currencies. The basket currency basket comprising the six East Asian currencies including the Korean won, the Chinese yuan, the Malaysian ringgit, the Thai

[4] Eichengreen et al (2002) shows that the real exchange rate based currency basket comprising 20 international currencies including East Asian currencies has shown stability even during the 1997 Asian currency

baht, the Hong Kong dollar, and the Singapore dollar, shows higher volatility than does the Japanese yen. The result does not change even when additional currencies such as the Indonesian rupee, the Philippine peso and the Japanese yen are included (see table 10).

Another problem with the currency basket bond is that the cost of monitoring movements in several currencies may reduce the diversification benefit. The high monitoring cost may be the reason why the currency pool loan (CPL) that used to be offered by the World Bank had to be faded out and replaced by the single currency loan due to lack of demand. It also explains why ecu-denominated bonds were not very popular.

One could argue that currency speculators who expect appreciation of the currencies comprising the basket will be induced to hold the currency basket bonds. Since, however, the currency composition of these bonds are fixed, currency speculators cannot change the composition even when bilateral exchange rates of the underlying currencies are expected to change. In general, currency speculators are likely to prefer managing their own currency risks. This means that as far as speculators are concerned, they would prefer holding as bond portfolio consisting of bonds denominated in different currencies than currency basket bonds. If the Asian currency is widely accepted as a unit of accounting and exchange rate policies of East Asian countries can be coordinated, then there will certainly be a larger demand for currency basket bonds.

- **Currency Swaps**

The issuance of Asian bonds denominated in a variety of East Asian local currencies will be facilitated if swap markets for these currencies are established. For those economies with a well-developed swap market, issuing bonds denominated in the local currency would be possible and cost effective. For a currency without a developed swap market, questions arise as to whether the official sector should step in to provide swap arrangements on to develop infrastructures for the swap market. The official intervention may contain an element of subsidization to the extent that the official swap provider takes the risk of unhedged swap positions at a price below the market level. To counter this view one could invoke the argument that the underdeveloped swap market is a public good which may justify the intervention in its development.

- **Credit Enhancement and Currency Tranching**

Credit enhancement and securitization could help remove some of the risk related to the currency mismatch in balance sheets of corporations and financial institutions. If the credit risk associated with the currency basket bonds can be completely removed through credit guarantees, then investors will be more willing to hold them despite the currency risk, because the investors can pay attention to the currency risk without considering the credit risk. Eliminating the credit risk makes it easier for investors to evaluate and price more properly the risk they take.[5]

The use of currency tranching in securitization may also be useful in mitigating the currency mismatch problem if there is a substantial demand for each currency tranche. Suppose that CBOs are issued on the collateral of won and baht denominated bonds. Three currency tranches may be created by securitization: the yen-denominated bonds, the currency basket bonds denominated in the Korean won and the Thai baht and the bonds with claims on the remaining cash flows. Investors purchasing the third tranche bonds are taking a short position on the Japanese yen and a long position on the currency basket of the Korean won and the Thai

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[5] Eichengreen, Hausmann and Panizza (2002) argue that this is one of the reasons why international financial institutions were able to issue international bonds denominated in currencies other than the five major currencies.

baht. It means that the investors purchasing the third tranche bonds can expect the same return on investment in bonds denominated in the Korean won and the Thai bond financed by an Yen loan. When the yen appreciates vis-à-vis the won and the bath, the return on the third tranch bonds will be low or even negative. The effectiveness of the currency tranching in resolving the currency mismatch will in the end depend on whether there is an enough demand for such investment position.

Although there is no denying that the methods introduced so far have some potential to minimize the currency mismatch problem in theory, it is doubtful that they would be effective in reality. The most effective as well as realistic way of dealing with the currency mismatch is to encourage foreigners to invest in local currency denominated bonds in the domestic bond market. Therefore, improving the bond market infrastructure and removing institutional bottlenecks to increase foreign investment in domestic bonds would be one of the financial reform priorities.

VI. A Road Map for the Development of Regional Bond Markets

VI-1. A Market-led Evolutionary Process

Our discussion in the preceding sections suggests that a number of regional bond markets differentiated in terms of the issuing currency would emerge in the course of financial liberalization and integration in East Asia. Competition among these markets will ensue and both borrowers and investors will migrate to the markets with most efficient payment and settlement system, thereby creating regional financial centers.

However, our analyses in preceding sections also make it clear that regional markets for bonds denominated in the currencies of emerging market economies of East Asia are not likely to establish as long as these countries do not allow non-residents to hold their currencies. It is conceivable that Asian bonds denominated in an Asian currency unit - a composite of regional currencies weighted by their relative economic importance - could be created through a regional cooperative scheme. However, it is not clear whether there will be any demand for this type of bonds.

In developing strategies for regional capital market development, East Asian countries could take either a market-led or government-led approach. The market-led or evolutionary approach relies more on competition among the countries attempting to transform their domestic capital markets into regional ones. . In this approach, cooperation among East Asian governments would be confined to developing financial, legal, and regulatory infrastructures at the regional level required to ensure efficiency and stability of regional bond markets. A more direct government-led approach requires an active participation on the part of East Asian governments not only in building the financial and other institutional infrastructures, but also in diversifying the menu of bond market instruments tailored to needs of investors through, for example, schemes of guaranteeing the principles and interest on private bonds, securitizing bank loans, and credit enhancement.

Since there will be a multiple of markets differentiated by issuing currencies, the most likely course of development of regional bond market in East Asia would take a market driven evolutionary process in which a number of countries aspiring to be a regional financial center open their domestic bond markets to foreign borrowers or to create an off-shore market where bonds denominated in a variety of currencies can be issued and traded. Some of these economies that survive this competitive process will in the end emerge as dominant regional financial centers. Given this scenario, the ASEAN+3 would be better advised if their efforts at policy cooperation focus on promoting healthy competition and constructing regional financial infrastructures to support to development of efficient regional bond markets.

If Tokyo, Hong Kong, and Singapore want to develop their domestic bond markets into regional ones, or to create off-shore international bond markets, then it is their business to attract borrowers and investors by providing a free and competitive market environment. Policy-makers of these countries will have to decide the types of market supporting institutions including until insurance and financial derivative, market to support internationalization of their domestic bond markets.

VI-2. Domestic Financial Reform

The lack of professional expertise business, inadequacy of the financial and legal infrastructures including regulatory systems, low standards of accounting and auditing, non-transparency of corporate governance all have plagued the development of capital markets in East Asia. Efficient and stable regional bond markets are not likely to take root unless East Asian countries speed up financial reform, strengthening the financial and legal infrastructures, and introducing and enforcing international standards for accounting, auditing, and governance. In parallel with domestic reform efforts, there is also a need for policy coordination and organizing regional cooperative arrangements for the building of regional financial infrastructures among the countries in the region.

While the need and rationale for creating regional bond markets in East Asia is rather clear, one should at the same time hasten to add that domestic financial reform is a prerequisite for developing efficient regional capital markets: the first step toward developing regional bond markets should begin with domestic financial reform focusing on removing impediments to issuing domestic bonds and building the market infrastructure for these instruments. To many

East Asian countries, regional bond markets will be new sources of foreign currency financing and the currency mismatch problem will have to be resolved, the solution through fostering of and opening to foreign investors domestic bond markets.

Unless domestic financial deregulation is carried out and capital account transactions are liberalized, domestic lenders and borrowers will not be able to take advantage of new sources of financing through regional bond markets. Without the active participation of regional investors and borrowers, robust regional bond markets will not emerge. Region-wide financial and institutional reform will therefore be crucial to nurturing a fertile ground on which regional capital markets can grow.

In view of the importance of and in order to overcome the domestic opposition to domestic financial reform faced by many of the East Asian countries, multilateral efforts at the regional level should be made to support and facilitate financial liberalization throughout East Asia. In this regard, Asian Bond Fund is a misguided strategy if it is designed to stimulate the supply of Asian bonds. At present, the problem with regional bond markets is not the lack of demand. In fact there is too much liquidity is these markets. Creditworthy East Asian corporations can issue bonds at low prices. The spread on East Asian corporate bonds is the lowest in the world. Only the financial and institutional reform will bring into domestic bond markets more high quality issues.

In many countries in East Asia, foreign investors are allowed to purchase domestic bonds denominated in local currencies. However, the number of firms that can receive an investment grade rating from global rating agencies is very small. For instance, in Korea, the number is estimated to be less than 31 out of 188 listed corporations that have acquired domestic credit ratings between January 2002 and May 2003.[6] Since foreign investors, in particular institutional ones, have a strong preference for high quality bonds with low credit risks, the supply of bonds foreigners can invest has been limited in these countries. Furthermore, because of the paucity of money market instruments and underdevelopment of currency swap markets, foreign investors often find it difficult to hedge against interest rate and exchange rate risks. There are also restrictions on trading these bonds outside of the countries where they are issued, which have limited the size of the secondary markets for these bonds.

Sub-standards bonds could be made more attractive to risk averse foreign investors through credit enhancement and guarantee of these bonds. However, credit enhancement and guarantee facilities often do not exist. When they exist, the cost of the credit quality improvement tends to be high, making bond financing less attractive than bank financing.

High yield bonds issued by those corporations and financial institutions with speculative grades could be transformed into investment grade paper through the creation of special purpose vehicles which issue and market bonds of their own backed by the sub-standard bonds they pool together. At this stage of development, however, only Korea, Hong Kong, and Singapore have been able to utilize the asset securitization scheme.

The crisis-hit countries in East Asia, which received the IMF rescue financing with policy conditionality, have made a considerable progress in reforming their financial systems. However, as the fear of another round of crisis has receded and the recovery of these economies despite the ongoing global slow down has been faster than expected, and the domestic opposition by the vested interests to the reform has mounted, reform efforts have slowed down

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6 The number is based on the domestic ratings of AA- or higher. If we lower the criterion to A+, the number increases to 49.

and given way to maintaining the status quo in these economies.

Furthermore, the two countries, which could and should provide leadership in promoting regional financial integration and cooperation have been mired in serious banking and other financial problems themselves so that they are in no position to lead region wide financial reform in East Asia. At present, there appears to be no serious market forces, incentives, or government will to sustain the financial reform in individual East Asian countries that was put into implementation after the crisis. Many proposals for domestic bond market development have been made by the World Bank, ADB, and Asia Policy Forum, but they are largely ignored. What is unsettling is that the CMI countries have been preoccupied with Asian bonds while ignoring need to organizing a joint program for supporting financial reform in individual East Asian countries. Without the reforms of domestic financial systems, there is a high probability that the Asian bond initiative may meet the fate of many past regional efforts that did not go anywhere.

VI-3. Creation of institutional infrastructures

As Rhee (2001) points out, one of the key issues related to the development of a regional bond market in East Asia may be the creation of a single central securities depository in East Asia for safekeeping, clearance, and settlements for all securities traded in the region. To obtain efficiency and stability of regional capital markets a large number of market supporting institutions should be created. They are: regional credit agencies, cross-border securities borrowing and lending mechanisms, credit enhancement and guarantee agencies, clearing and settlement systems, a centralized depositary system, and exchanges and over-the-counter markets for bond trading. In addition, different financial standards, regulatory systems and tax treatments in different countries in the region will have to be harmonized.

A well-organized clearing and settlement process is a critical feature of a smoothly functioning regional bond markets, providing for the efficient and safe transfer of ownership from the seller to the buyer. An efficient cross-border clearing and settlement requires access to systems in different countries and the interactions, of different system. In East Asia, the existing infrastructures for clearing and settlement for cross-border securities transactions in rudimentary and remains highly fragmented. Since investors from East Asia and other regions are required to access many national systems with different types of services, technical requirements, and with different legal and tax frameworks, the costs of cross-border transactions associated with the poor infrastructures are very high and a major limitation on the scope of therefore cross-border securities trading in East Asia.

The planners of the Asian bond market development will have to identify first the existing barriers to efficient cross-border clearing and settlement in terms of (i) national differences in technical requirements and market practices, and (ii) national differences in tax and legal procedures, Once these barriers are identified, they can be divided into those that can be addressed by the private sector and others that require official intervention.

A recent report on integration of the clearing and settlement systems in EU (the Giovannini Group 2001 and 2003) shows that the most serious barriers to integration are the restrictions on the settlement activities. Removal of these restrictions is the first step that will set in motion a market led integration of clearing and settlement activities. Among these barriers, differences in the information technology, operating hours, settlement periods, intra-day settlement finality, and issuance practices can and should be harmonized by the private sector. The barriers related to taxation and legal certainty would require cooperation among the ASEAN+3 governments.

VI-4. Complementary or Substitute Markets

East Asian borrowers have options of issuing bonds in local, regional, and global bond markets. Most of the large corporations that can obtain an investment grade rating have been migrating to global bond markets. They also have access both to global and domestic equity markets. Small and medium sized firms are not capable of raising capital from either local or regional bond markets. Who will then raise funds in the regional bond markets in East Asia?

This identification of prospective borrowers is important in the sense that it will help determine the role of East Asian regional capital markets. Would these markets have a better chance of survival if they were structured to be complementary to either domestic or global capital markets? Should they compete against global markets in soliciting creditworthy East Asian borrowers?

Regional bond markets in East Asia cannot remain separated from global financial markets. With opening of financial services industry, foreign investment banks, brokers and dealers will play an important role in developing regional capital markets in East Asia, in particular in developing a critical mass of East Asian issuers and investors. Because of their dominance in supplying capital market services in global financial markets, they will also serve as the intermediaries of integrating regional capital markets with global markets. This inevitable integration suggests that regional bond markets are likely to be a viable source of financing if they are structure to be complementary to global capital markets. Because of their nascent features these markets will have a better chance of success, if they specialize in terms of products or borrowers.

VI-5. Regional Cooperation and Official Sector Intervention

Since there is not likely to be a strong demand for high yield Asian bonds, most likely high quality bonds with investment grade ratings will be issued in these markets. This means that one cannot expect a large increase in the supply of marketable Asia bonds in the foreseeable future. Another problem is that this demand side characteristic put these market in direct competition vis-à-vis global bond markets. Many of the issuers who can borrow from these regional markets also have access to global bond markets. Unless issuing costs are competitive, these will be few East Asian firms tapping these bond markets. Because of these two problems, the leaving-it-to-the market approach may not succeed in fostering regional bond markets. The Asian bond initiative could be inhibited by the vested interests of the banking and equity market. Since an underdeveloped bond market is a public good, government intervention could be justified (Yam 2001). What would then be the scope of government involvement and what would be specific measures of intervention?

In the long-term, the objectives of the official sector intervention organized by the ASEAN+3 are rather clear. They are:

(i) Implementation of a regional assistance program for domestic financial reform; (ii) consolidation and integration of clearing and settlement systems of individual countries;

(iii) Support for the establishment of regional credit rating agencies; and

(iv) Harmonization of legal, regulatory, and tax systems.

In smaller East Asian developing economies creating an efficient domestic bond market may be extremely costly and most likely will end up in failure unless institutional reform of corporate, governance, and accounting, disclosure that could protect the investors' rights precedes. Even if a bond market can be created, it remains uncertain whether the market will be a competitive source of financing compared to the bank and equity market financing. Smaller East Asia economies may have incentives to forgo developing domestic bond markets if they could depend on regional and global bond markets for long-term financing without incurring the currency mismatch problem. For their countries, cooperative efforts at the regional level may be directed to providing institutional support of credit, enhancement and guarantee and currency swaps to increase their access to regional or global bond markets.

In the short-run, however, market intervention by the official sector may be necessary to set in motion the cooperative efforts of the ASEAN+3 for the development of regional bond markets: in this regard many schemes for credit enhancement and guarantee designed to improve credit ratings of Asian issuers have been proposed. From the Japanese point of view, one approaches it to revive the New Miyazawa plan.

In principle, the private sector should be able to develop schemes for credit enhancement and insurance. And in fact, there are many insurance compares specialized in this business. The public sector involvement should be limited to the cases of the market failure as in the credit rating bond assistance to small and medium sized funds and the sovereign borrowers unable to obtain or investment grade rating.

Liu and Ferri(2001) show that corporations in developing countries are discriminated against in credit rating by global credit rating agencies in that these ratings are very much bound upward by their sovereign ratings regardless of their domicile. Firms in developing countries are rated low because their sovereign ratings are low, which is mostly caused by the poor quality of institutions and information disclosure.

The long-term solution to this rating problem is then to improve rule of law and quality of information disclosure by investing more or social capital and institution building. In the short-run, joint efforts by the ASEAN+3 could organize regional schemes to cooperate with global rating agencies to devise separate firm level ratings based on firm specific risks only. Liu and Ferri also propose mechanisms of credit enhancement and guarantee as a short-run measure. If private credit insurance institutions are not efficient so that a vast majority of firms in East Asia do not have access to the credit improvement mechanisms at reasonable prices, then one can make a care for the official sector involvement. However, if government sponsored credit improvement institutions are managed in a loose manner, then the government involvement runs the risk of creating moral hazard problems, which will interfere with financial reform and institution building in individual East Asian countries.

VII. Concluding Remarks

Several proposals have been made regarding the strategies for and modalities of developing regional bond markets in East Asia. This paper has examined the economic rationale and need for creating regional bond markets from the perspectives of the borrowers as well as investors from East Asia.

Our analysis of the prospects for creating regional bond markets make it clear that the development of domestic bond markets should preceed the development of regional bond markets in East Asia. Deep and liquid domestic bond markets could relieve many East Asian emerging market economies of the burden of the twin mismatches of maturity and currency of the balance sheets of corporations and financial institutions of these economies. Regional markets are also expected to contribute to stabilizing capital flows between East Asia and the rest of the world and could serve as a potential shield against future financial crises. To many smaller developing economies in the region, however, developing domestic bond markets can be so costly that they may have to rely on either regional and global bond markets to raise long-term capital.

For efficiency and stability, regional bond markets cannot remain isolated but will have to be linked to global bond markets. Countries aspiring to become regional financial centers in East Asia are expected to develop efficient market infrastructures and a free market environment to attract regional issuers and investors to their markets. Through competition some of these countries will emergence as major regional financial centers in East Asia. At this stage of development, some of the most important cooperative tasks the ASEAN+3 are faced with are to encourage and sustain domestic financial reform in the member countries and to build regional financial infrastructures required for robust and efficient regional bond markets.

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Table 1. Size of the Capital Market (2001)

(US$ Billion)

	Stock Market Capitalization		Debt Securities		Bank Asset	
World	28,875.1	(19.2%)	41,792.2	(27.8%)	79,401.8	(52.9%)
EU-15	6,763.0	(13.1%)	11,843.4	(23.0%)	32,939.7	(63.9%)
United States	13,826.6	(25.4%)	18,504.3	(34.0%)	22,157.4	(40.7%)
Japan	2,293.8	(10.6%)	6,925.1	(32.0%)	12,408.6	(57.4%)
Asia	1,310.4	(14.1%)	1,270.0	(13.7%)	6,722.4	(72.3%)
Latin America	412.0	(15.3%)	693.7	(25.7%)	1,593.3	(59.0%)

Source : *Global Financial Stability Report, March 2003*

Table 2. Source of Corporate Finance (2000)

	Bank Loans	Corporate Bonds	Equities
Korea	59.6	25.9	36.4
Indonesia	60.2	1.7	20.1
Malaysia	122.7	9.2	83.6
Thailand	99.2	4.2	26.3
USA	38.9	45.4	178.9

Table 3. Investment/GDP & Savings/GDP Ratios in Asia

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
					Investment/GDP Ratio(%)					
China	34.77	36.17	43.30	41.19	40.83	39.58	38.22	37.71	37.16	37.27
Indonesia	31.55	30.48	29.48	31.06	31.93	30.69	31.75	16.77	12.19	17.87
Korea	39.85	37.34	35.51	36.51	37.17	37.94	.34.23	21.17	26.67	28.66
Malaysia	35.63	35.98	38.30	39.74	43.15	42.11	42.77	26.83	22.14	25.58
Philippines	20.21	21.34	23.98	24.06	22.45	24.02	24.78	20.34	18.75	17.84
Singapore	34.82	36.36	37.87	33.47	34.58	36.92	38.92	32.34	32.44	31.30
Thailand	42.84	39.96	39.94	40.18	41.85	41.58	33.33	20.32	19.94	22.67
Hong Kong	27.20	28.49	27.58	31.89	34.84	32.06	34.54	29.02	24.95	27.55
Japan	32.44	30.69	29.24	28.06	28.20	29.13	28.70	26.89	26.01	..
					Savings/GDP Ratio(%)					
China	38.11	37.72	41.78	43.06	43.13	41.73	42.98	42.34	40.05	39.94
Indonesia	33.25	33.41	32.46	32.20	30.59	30.08	31.48	26.53	20.20	25.72
Korea	36.84	35.85	35.57	35.37	35.70	33.83	33.22	34.63	33.53	31.44
Malaysia	31.97	37.33	38.20	38.14	39.21	43.49	43.68	48.82	47.21	46.71
Philippines	17.22	16.44	15.53	17.75	14.63	15.24	14.44	13.71	18.91	23.98
Singapore	45.54	46.23	45.77	48.50	50.21	50.56	52.27	52.04	51.78	49.76
Thailand	36.30	35.95	36.19	35.34	35.13	35.32.	34.75	36.20	32.57	30.73
Hong Kong	33.80	33.82	34.61	33.10	30.49	30.66	31.10	30.12	30.35	32.29
Japan	34.05	32.85	31.45	30.07	29.59	29.62	29.80	28.72	27.55	..

Source : World Bank and OECD

Table 4. Foreign Reserve Holdings in Asia

(US$ Billion)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
China	22.39	52.91	75.38	107.00	142.70	149.10	157.70	168.20	215.60	286.41
Indonesia	11.26	12.13	13.71	18.25	16.59	22.71	26.45	28.50	27.25	-
Korea	20.23	25.64	32.68	34.04	20.37	51.97	73.99	96.13	102.70	120.81
Malaysia	27.25	25.42	23.77	27.01	20.79	25.56	30.59	29.52	30.47	34.58
Philippines	4.68	6.02	6.37	10.03	7.27	9.23	13.23	13.05	13.44	16.06
Singapore	48.36	58.18	68.70	76.85	71.29	74.93	76.84	80.13	75.37	81.37
Thailand	24.47	29.33	35.98	37.73	26.18	28.83	34.06	32.02	32.35	38.92
Hong Kong	42.99	49.25	55.40	63.81	92.80	89.65	96.24	107.50	111.10	-
Japan	98.52	125.80	183.20	216.60	219.6	215.40	286.90	354.90	395.10	451.46

Source : IMF, *International Financial Statistics*

Table 5. The Share of Asian Reserve Holdings in the World

(US$ Billion)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
Total Reserves in Asia		412.20	520.70	617.90	649.30	701.90	837.50	957.00	1061.21
Total Reserves in World	994.10	1142.80	1361.80	1537.70	1602.10	1651.20	1975.80	2105.80	2201.10
Reserves in Asia/World(%)	31.73	36.07	38.23	40.19	40.53	42.51	42.39	45.45	48.21

Source : IMF, *International Financial Statistics*

Table 6. Foreign Holdings of the Korean Securities

(Hundred Million Won)

	Market Capitalization		Foreign Holdings		Ratio of Foreign Holdings	
	Stock	Bond	Stock	Bond	Stock	Bond
1999	3,495,039	3,644,186	765,905	11,567	21.9%	0.31%
2000	1,880,414	4,236,835	565,585	6,921	30.1%	0.16%
2001	2,558,500	5,047,298	936,982	4,293	36.6%	0.09%
2002	2,586,807	5,639,436	931,607	6,466	36.0%	0.11%

Source : Financial Supervisory Service

Table 7. Foreign Investment in Japanese Domestic Portfolio

(Trillion Yen)

	Region	2000	2001
Equity	United States	20.3 (31.7%)	14.07 (28.4%)
	Europe	37.2 (57.7%)	28.8 (58.2%)

	Asia	2.7 (2.0%)	2.3 (4.6%)
	Latin America	1.2 (2.0%)	1.8 (2.4%)
Bond	United States	4.3 (14.2%)	4.6 (13.9%)
	Europe	17.3 (56.7%)	19.4 (58%)
	Asia	5.9 (19.4%)	5.8 (17.4%)
	Latin America	1.7 (5.6%)	1.8 (5.4%)

Source : Bank of Japan, *Quarterly Bulletin*, 2002 and 2001

Table 8. Outstanding Amounts of International Debt Securities by Currency of Issue

	1994	1996	1998	2000	2002(Q3)
U.S dollar	809.7	1,114.6	1,834.2	2,908.7	3,979.8
Japanese yen	380.8	464.7	464.5	454.3	434,8
Pound sterling	170.4	225.7	322.6	453.1	587.3
Swiss franc	156.4	151.2	153.5	132.0	149.5
ECU/Euro	90.9	74.3	158.8	1,770.0	2,995.4
Other*	657.7	908.3	1,121.7	156.9	197.5
Total	2,265.9	2,938.8	4,055.3	5,875.0	8,344.3
Percentage of 5 major currency	71.0	69.1	72.3	97.3	97.6

Source : Bank for international Settlements.

*For 1994-1998, data include euro area currencies**.**

Table 9. Correlation Between East Asian Currencies

1995.11-2003.6

	KRW	IDR	MYR	PHP	SGD	TWD	JPY
KRW		-	-	-	-	-	-
IDR	0.4742		-	-	-	-	-
MYR	0.4586	0.6582		-	-	-	-
PHP	0.5284	0.6494	0.7143		-	-	-
SGD	0.4703	0.6998	0.6824	0.6184		-	-
TWD	0.4774	0.4737	0.4966	0.5082	0.6231		-
JPY	0.2834	0.2323	0.2692	0.2248	0.5244	0.4819	

1997.1-1998.12

	KRW	IDR	MYR	PHP	SGD	TWD	JPY

KRW		-	-	-	-	-	-
IDR	0.5000		-	-	-	-	-
MYR	0.4712	0.7022		-	-	-	-
PHP	0.5672	0.7110	0.8170		-	-	-
SGD	0.5035	0.7247	0.8176	0.7555		-	-
TWD	0.4815	0.5740	0.5918	0.5462	0.7555		-
JPY	0.2153	0.3490	0.3968	0.3204	0.6043	0.5490	

1999.1-2003.6

	KRW	IDR	MYR	PHP	SGD	TWD	JPY
KRW		-	-	-	-	-	-
IDR	0.2337		-	-	-	-	-
MYR	0.0148	0.0332		-	-	-	-
PHP	0.3732	0.3772	0.1265		-	-	-
SGD	0.3638	0.6429	-0.0558	0.2449		-	-
TWD	0.5142	0.1502	-0.0189	0.3938	0.3378		-
JPY	0.5962	0.0581	-0.0192	0.1308	0.4760	0.4428	

Table 10. Standard Deviation of the Rate of Currency Depreciation

	Jan 1993 - Jun 2003	Jan 1998 - Jun 2003
United Kingdom	1.760	1.666
Japan	2.889	2.843
Index 1	4.699	2.699
China	4.466	0.009
Hong Kong	0.524	0.024
Malaysia	2.820	2.167
Singapore	1.487	1.601
Korea	4.825	2.756
Thailand	3.904	2.975

Index 1 : Korea, Thailand, China, Malaysia, Hong Kong, Singapore

	Nov 1995 - Jun 2003	Jan 1998 - Jun 2003
United Kingdom	1.692	1.666
Index 2	6.768	5.207
Index 3	3.215	2.210
China	0.040	0.009

Hong Kong	0.036	0.024
Malaysia	3.188	2.167
Singapore	1.636	1.601
Korea	5.643	2.756
Thailand	4.561	2.975
Japan	2.718	2.843
India	1.184	0.795

Index 2 : Index 1 + Philippines + Japan

Index 3 : Index 2 + India

Table 11. Cross Border ABS Issuance in East Asia

(US$ Million)

Nation/year	2000		2001		2002	
China	-	-	-	-	-	-
Hong Kong	299.69	18.22%	-	-	-	-
Indonesia	-	-	-	-	-	-
Korea	1,186.91	72.16%	2,301.42	83.96%	3,723.57	67.00%
Malaysia	-	-	250.00	9.12%	600.00	10.80%
Singapore	125.00	7.60%	97.36	3.55%	409.89	7.38%
Thailand	-	-	-	-	-	-
Taiwan	-	-	-	-	-	-
Philippines	-	-	-	-	499.81	9.00%
Others	33.30	2.03%	92.34	3.37%	324.31	5.84%
Total	1,644,90	100%	2,741.12	100%	5,557.58	100%

Source : Watmore(2003)

Figure1. Two Tier Securitization Scheme for SME Financing

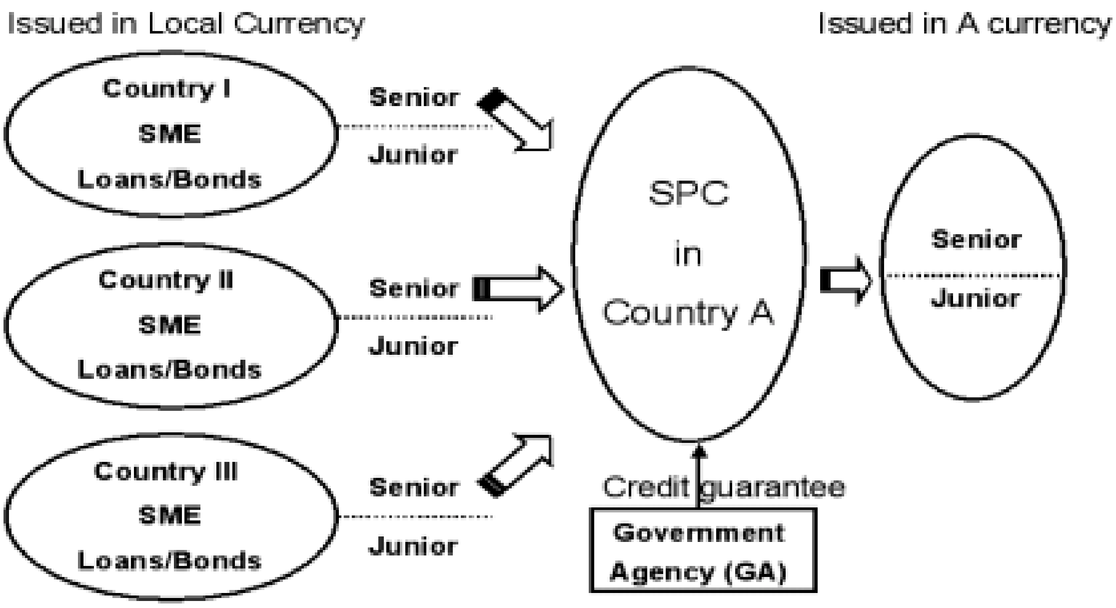
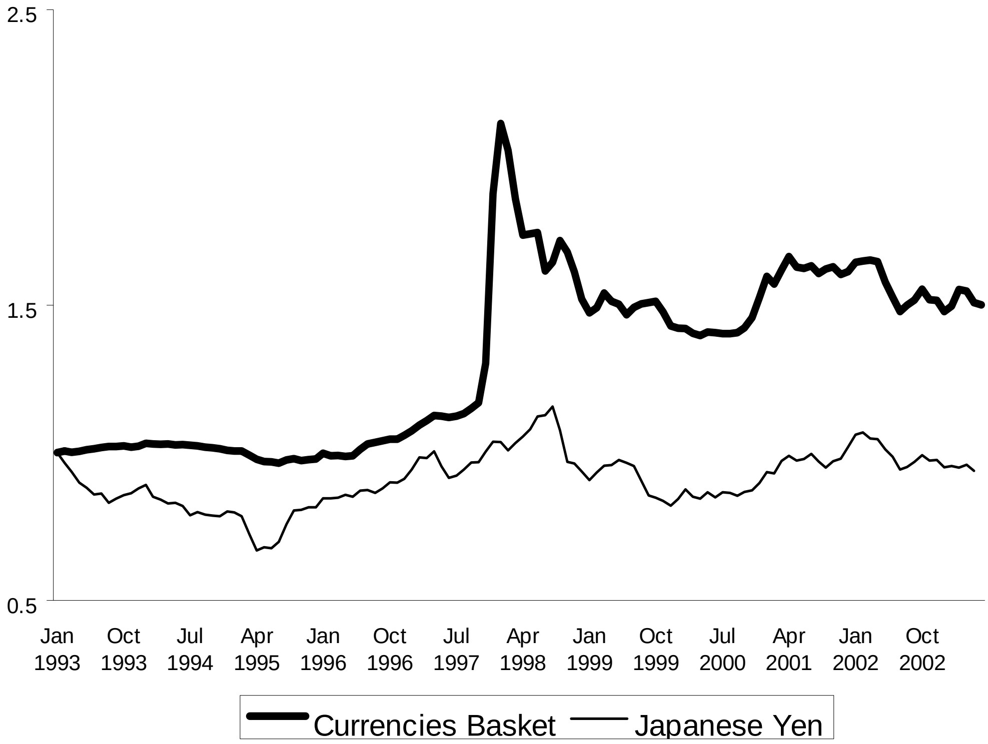


Figure 2. Asian Currency Basket vs. the Japanese Yen



Source. Pacific Exchange Rate Service