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ABSTRACT

ASEAN countries have been trying to diversify their heavy reliance on the banking sector in favor of other financial intermediation vehicles, including equity and fixed-income markets. Supply and demand conditions are such that bond markets in particular will become increasingly important in these countries; most member-states have launched initiatives to develop their respective fixed-income markets. Moreover, financial cooperation is now taking on a priority role in the ASEAN economic cooperation process. This paper considers what will be required to strengthen individual bond markets in ASEAN, as well as develop a framework within which a regional bond market can be established.

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G15 International Financial Markets

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I. Introduction

All countries of the Association of Southeast Asian Nations (ASEAN) grouping, from the most to the least developed, have been working diligently to enhance the strength, efficiency, and depth of their financial systems. Development of the financial sector has been a salient policy goal of most member-states at least since the mid-1980s, but the urgency and determination with which ASEAN governments have focused on capital-market reform has increased dramatically with the advent of the Asian Currency Crisis in July 1997. ASEAN leaders now place financial reform among their most important and pressing economic policy goals.

Since the financial systems of all ASEAN countries are mainly based on banking, reform in this area has been the most crucial, especially because it was the banking sector that bore the brunt of the financial crisis. Over the past few years, Crisis-affected ASEAN countries have been struggling with the challenges of debt resolution in general--especially with respect to non-performing loans (NPLs)--recapitalization of banks, financial reforms to improve efficiency and reduce systemic risk, and the implementation of more effective monitoring and surveillance systems. ASEAN countries have chosen different ways to deal with the overhang of problems from the Crisis, but all have endeavored to tackle shortcomings as directly as possible and with the view of achieving long-run, sustained and sustainable economic development.

As part of the financial reform program, ASEAN countries have been trying to diversify their heavy reliance on the banking sector in favor of other financial intermediation vehicles, including equity and fixed-income markets. It is only natural for banks to play an even more central role in developing countries than they do in developed countries. The information asymmetry that exists between borrowers and lenders, with borrowers having much more information than lenders, is more pronounced in the case of developing countries, and this constitutes one reason why banks need to play a prominent role especially at the early stages of development.[1] Moreover, given the economies of scale related to fixed income and equity markets and complications related to enabling financial infrastructure,[2] diversification of capital markets can be difficult. However, a one-pillar, bank-dominated financial system holds many risks, including possible efficiency losses and increased systemic risk. Importantly, it limits the way in which a financial system can price risk efficiently, and reduces the options open to investors and borrowers. Hence, while one would always expect the banking sector to assume a key financial-intermediary role in the ASEAN countries, and fostering its health should be a perpetual priority, the development of alternative markets could be extremely important for the long-run growth and development of the financial sector, as well as the entire economy. Therefore, ASEAN's greater emphasis on the development of equity and bond markets is not only appropriate but essential.

[1] As markets develop, information becomes more open and standardized, and financial systems become more transparent, this asymmetry becomes less important and development of other forms of finance more appropriate.

[2] For an example of such constraints in the context of the Philippines bond market, whose Securities and Exchange Commission is the second oldest in the world—established in 1936, only two years after the US Securities and Exchange Commission—see Syquia, Jose Tomas, "Trends and Developments in Enforcement in Emerging Equities Markets," mimeo (Manila, Asian Development Bank, undated).

This study focuses on developing the ASEAN Bond Market, for both sovereign/quasi-sovereign debt and corporate debt. It is meant to accompany another study which focuses on the development of regional equity markets.[3] We define "regional" bond markets to include development of the individual markets as well as a regional market through which cross-border issuances could be feasible. Arguably, a study on an ASEAN regional market could not be done any other way. Many individual bond markets in the region continue to be in a state of infancy or adolescence; only Singapore is classified by the experts as having a world-class bond market in which investment banks, multinational corporations, and regional development banks consistently raise capital in local currency. And even in the case of Singapore, some restrictions persist and initiatives are underway to improve liquidity in the secondary market. Before a vibrant regional market can be developed, a good deal of deepening in individual markets, as well as harmonization, must be pursued.

The remainder of the paper is organized as follows. Section II considers bond-market potential in the ASEAN countries, followed in Section III by an analysis of bond-market cooperation in ASEAN to date. We give a brief survey of characteristics of the member-state bond markets in Section IV and analyze potential benefits through interest-rate convergence (Section V) and development of most efficient bond-markets based on best-practices (Section VI.). Section VII focuses on a salient problem in developing national and a regional bond market: liquidity. Finally, Section VIII summarizes the case for regional and local bond-market development.

II. Bond-Market Potential in ASEAN: Supply, Demand and Institutional Considerations

Bond markets globally have been growing at an impressive rate. According to Merrill Lynch, the size of the world bond market in 1999 was US$31 trillion, about 98 percent of global GDP, up from 60 percent in 1990.[4] Much of this increase is due to robust growth in the corporate bond market, especially since the United States turned its large deficit in the 1980s and early 1990s into a large surplus in the late 1990s and 2000, and Europe has been fiscally conservative (in the main led by Maastricht Treaty related exigencies). Overall, in 1999 the aggregate size of developing Asian bond market came to US$722 billion, a large figure but quite small compared to the global market (about 2 percent). In ASEAN over the period 1990-1999, the share of corporate bonds in local markets has risen from 38 percent to 61 percent in the Philippines, 17 percent to 44 percent in Malaysia, 10 percent to 27 percent in Thailand, 0.4 percent to 6 percent in Indonesia, and 1 percent to 26 percent in Singapore. However, large and rising budget deficits in the wake of the Asian Financial Crisis, plans for infrastructural investment, and difficulties in stimulating corporate interest in bond issuances will likely allow sovereigns to hold their share of national fixed-income markets in the short- and medium term.

The position of the bond market relative to bank assets and stock market capitalization prior to the Asian Crisis was quite limited. As a percentage of GDP, bank assets, stock-market

[3] Click, Reid W. and Michael G. Plummer, Stock Market Integration in ASEAN After the Asian Financial Crisis," forthcoming *ICSEAD Working Paper*, 2002.
[4] Merrill Lynch, April 2000. *Size and Structure of the World Bond Market 2000.*

capitalization, and the bond market constituted, respectively 57 percent, 30 percent, and 7 percent in Indonesia; 100 percent, 283 percent, and 56 percent in Malaysia; 54 percent, 87 percent, and 39 percent in the Philippines; 186 percent, 217 percent, and 72 percent in Singapore; and 110 percent, 94 percent, and 10 percent in Thailand.[5] Since the Crisis, with the collapse of stock markets and the banking crisis, the bond market has, in relative terms, taken on a much more important role. And especially over the past two years, national monetary and financial authorities, ASEAN Finance Ministers, and APEC Finance Ministers have all underscored the important potential for bond-market development in the region.

It may be useful to consider market growth from three perspectives: the supply, demand, and institutional aspects of financial markets. First, ASEAN countries have generally had high savings rates, at least compared to other developing countries. Before the Asian Crisis, with the exception of the Philippines the savings rates of the ASEAN-5 were all higher than 30 percent of GDP. Even the transitional economies have high savings rates if adjusted for their low-level of *per capita* income; savings as a percentage of GDP in Myanmar and Vietnam in 1997 were 14.6 percent and 17 percent, respectively.

These relatively-high savings rates apply not only to household but also government savings. Prior to the Asian Crisis, ASEAN governments had overall reduced public *dis*-savings considerably, to the point that many of the Crisis-affected countries actually had surpluses prior to July 1997. Given the region's growth prospects, demographics, institutional characteristics, and savings behavior, it is likely that this supply of savings will continue to be huge over the long term.

So where have these savings been going? Before the Crisis, a large share was invested in speculative markets such as real-estate ventures. A considerable amount also went overseas, especially to the United States but also to Europe, and only to come back to Asia in the form of short-term bank lending. The lack of financial instruments and capital-market information reduced the options offered to savers in Asia, be they households or institutions such as pension funds. The highly-developed financial markets outside the region made it all-too-easy to avoid the hard choices and institutional reform needed to rectify this. This created an exposure of another kind: the capital-market implosion in the United States and EU (not to mention the crisis in Japan) hurt significantly the financial wealth of ASEAN investors. Indeed, while economic growth in ASEAN in 2002 was higher than most economists had predicted, this is more due to the marginal increase in intra-Asian trade than greater diversification in financial investments. Intra-regional financial flows tend to be extremely small.[6]

Second, over the past few decades ASEAN has been one of the fastest-growing regions in the world with a very strong demand for credit. Private investment rates in many ASEAN countries prior to the Asian Crisis fell in the range of 30-40 percent, and infrastructural investment has soared. The current account deficit came to 5-8 percent in the Crisis-affected

[5] Dall, Ismail and Deena Khatkhate, March 1996. The Emerging East Asian Bond Market, Finance and Development, pp. 11-13.

[6] See, for example, Plummer, Michael G., "Financial Cooperation Needed," *Far Eastern Economic Review*, 5th Column: October 17, 2002.

countries in the early-to-mid 1990s, with the corresponding inflows of foreign savings used to finance an excess of private investment demand. While the Crisis has led to a major decrease in capital inflows and forced current account surpluses, investment demand is still higher than in other developing regions. Moreover, as ASEAN countries are now in deficit, they are being forced to find cheap and innovative ways of raising funds, or at least there is a much higher incentive to do so. In short, this strong demand for investible funds will no doubt persist over the long term. Further, from a political point of view, many ASEAN countries--as well as others in Asia--are a bit nervous about such a high reliance on intermediation outside the region.

But how has ASEAN been able to finance their investments? As was noted above, to date it has mostly been through bank lending. Equity markets tend to be thin, highly-volatile, and illiquid; fixed-income markets are even less developed. While a strong reliance on bank lending is not necessarily an impediment to longer-term economic development (for example, Germany tends to rely on bank lending), it limits the options available to firms and places a greater strain on the banking system, as well as creating disproportionate reliance on the banking system for the health of the economy (which can, *inter alia*, cause moral hazard problems in itself).

This lack of diversity in investment vehicles in ASEAN has been burdensome for the larger companies and public-sector equities facing highly-limited sources of funds at home; either they work through the local banking system or they try to tap international markets, listing directly or via the bond markets. Once again, this strengthens the debt and liquidity of developed-country markets but to the disadvantage of local development. Moreover, small companies, and especially start-up companies (so important in the ICT age) can be left out of the system completely, as banks have a natural tendency to rely on larger, more established clients and venture-capital markets are generally absent. The lack of a reliable yield curve has been a perennial problem for corporate issues.

Thus, the huge supply of savings and strong investment demand in Asia was (and is) directly or indirectly intermediated outside the region, or if it took place inside the region, it was done mostly through the local banking system. The shortcomings of such a situation are obvious; most importantly, it makes the system entirely dependent on the banking system and creates high-exposure to the actions of market participants of, and the economic performance in, countries outside of the region. It also develops a tendency toward maturity mismatches.

The Asian financial crisis underscored many of these weaknesses. Once the processes for addressing immediate problems stemming from the Crisis were set in motion (such as dealing with the NPL problem, recapitalizing the banking system, and improving banking laws, practices and monitoring/surveillance mechanisms), policymakers in the region began to turn their attention to market diversification and deepening issues. For example, most countries have enacted or have plans for reforms designed to deepen equity markets, and to create deeper and more liquid bond markets. In this sense, the Asian Crisis, though extremely costly in terms of social and economic costs, has had a positive side in that it is forcing governments to expand capital markets and strengthen financial systems, thereby increasing the potential of future sustained growth and, hopefully, mitigating the effects of any future crisis. As Robert J. Shiller notes in *Irrational Exhuberance* (2000):

> Given that speculative bubbles tend to occur, their eventual bursting may indeed be on balance a good thing. The Asian financial crisis of 1997-98, sparked by the withdrawal of world investors from Asian markets, may be viewed not as a crisis in the long-term sense but as a sanity check that prevented what might have turned out to be a more disastrous speculative bubble from ever developing.[7]

So as not to miss the forest for the trees, it is important to point out that Asian financial markets are still suffering from problems related to the Asian Financial Crisis. These need to be rectified, especially the issue of NPLs or, more generally, NPAs (Non-Performing Assets). The economic recovery of 1999-2000 allowed Asian governments more breathing room to enact reforms, but much remains to be done.

While the extent to which Asian countries are able effectively to create deeper financial markets in Asia will be a function of progress in dealing with these issues, there is no reason why countries should not begin to develop the necessary policies to bring about medium- and long-term financial deepening now. As is underscored by the conclusions of a recent (March 2001) publication by the ADB Institute:

> …Asian countries should place high priority on strengthening the banking system, but at the same time emphasize the importance of initiating to develop domestic corporate bond markets by eliminating all possible impediments since it takes time to establish sound corporate bond markets….the banking system and the corporate bond market should be complementary to each other in Asian developing countries (p.4).[8]

A greater focus is being placed on the bond market in ASEAN, which has hitherto been quite neglected, at least in countries heavily affected by the Crisis**.** Fixed-income instruments can be important in complementing equity markets. Firms may wish to raise medium- and long-term financial capital without relinquishing more control of the firm, or possibly as a complement to equity issuances (or *vice versa*; major corporate bond issues are often accompanied by warrants). Moreover, as will be noted later, ASEAN governments have recognized that a stronger and more extensive local bond market can be strong protection against maturity and currency mismatches.[9]

But, in many ways, it is difficult to refer to national bond "markets" in ASEAN, as much of the activity tends to be in the form of buy-and-hold strategies of institutional investors. With

[7] Shiller, Robert J., 2000. *Irrational Exuberance* (Princeton: Princeton University Press), pp. 228-229.

[8] Yoshitomi, Masaru and Sayuri Shirai, March 27, 2001. "Designing a Financial Market Structure in Post-Crisis Asia: How to Develop Corporate Bond Markets," *ADB Institute Working Paper Series No. 15.*

[9] A "maturity mismatch" exists when a bank's assets are long-term and its liabilities are short term in nature, and a "currency mismatch" refers to assets being denominated in local currency whereas obligations are denominated in foreign currency. The currency and maturity mismatches are referred to as "original sin" by Eichengreen and Hausman (1999).

little trading activity, markets tend to be shallow and illiquid. While some East Asian countries have been able to create a yield curve that can be used to benchmark future bond issues, most yields continue to be under 10 years. Moreover, even where in some ASEAN countries a yield curve technically exists, the market does not deem it to be reliable because secondary trading is so thin. Secondary markets, where they exist, are underdeveloped in all ASEAN countries, with the possible exception of Singapore. Moreover, most emerging-economy governments issue bonds, but in many of these countries no real market exists.

This is changing. Singapore, for example, has been highly active in trying to develop its bond market and further strengthen the country's place in the international financial community. Singapore now allows foreign entities to issue bonds in Singapore dollars locally, with few restrictions (although the Singapore dollars have to be swapped immediately into foreign currency). Beginning in 1998 the Singapore market has drawn considerable foreign participation in such issues, with just about all the major investment banks now having tapped the market. Deepening of the bond market in Singapore has also led to a greater role for the Singapore dollar in the international arena, though the government has been cautious and continues to be careful to not let the currency become too internationalized.

The need to finance emerging government deficits in the region, robust demand for infrastructural projects, and ambitious business plans of many private-sector companies make the development of the bond markets a natural priority, though a major challenge. According to recent studies, including those conducted by the ADB Institute, the ADB, and APEC, much remains to be done in strengthening the local markets. To summarize briefly some of the findings from these reports, market impediments include: lack of reliable yield curves and liquidity in the markets; lack of local institutional investors that are active in the market; underdeveloped clearing and settlement systems; weak protection of intellectual property; and insufficient protection and fiduciary responsibilities.

III. ASEAN Financial Cooperation and the Bond Market

It is difficult to understand the importance of an ASEAN Bond Market without appreciation for ASEAN itself, just as it would be difficult to understand the true goals of European economic cooperation without recognizing its unique context. ASEAN is much more than just a group of countries sharing a common geography. Intra-regional cooperation has a history of 35 years, and ASEAN economic cooperation began 26 years ago. While intra-regional trade and investment as a percentage of total economic activity is not high in ASEAN (e.g., intra-regional trade as a percentage of total trade is only about 25 percent), regional cooperation in the areas of trade and investment have initiated the process of developing a regional identity, with foreign investors, for example, increasingly evaluating the region as a fairly-integrated whole. This became evident during the Asian Crisis; although "real" links between the ASEAN economies are not extensive, "contagion" of the Asian Crisis spread to the member-states fairly quickly. The contagion issue is a complicated one, but the fact that international investors attach a certain intra-regional relationship and identity to ASEAN member-states certainly played a role. "Policy externalities" are strong in ASEAN, that is, the macroeconomic and financial situation in one country will affect that prevailing in the others. Bolstering financial systems in individual member-states will have important positive effects on the region as a whole. The existence of policy externalities, therefore, constitutes an important incentive to taking a regional approach to bond-market development. Moreover, cross-issuance of ASEAN bonds, albeit having important potential, will never attain the size of the individual markets as a whole. In sum, ASEAN is not the EU; however, regional cooperation has been important to ASEAN for a long time, and will be increasingly so in the future.

Until the 1990s, scholars implicitly assumed that "real" economic integration through free-trade areas like AFTA could be separated from "financial" economic integration. This is not the case in the contemporary economic system. The EU discovered that creating a truly-integrated market required closer cooperation in the area of finance and macroeconomics, especially exchange rates. The Mexican Peso Crisis, which exploded the year that NAFTA was implemented, was a reminder of the need to stress the role of stable financial and macro policies along with the real sector, as well as to include provisions to address possible exchange-rate shocks. ASEAN countries have been slowly embarking on means to strengthen regional cooperation by bringing in the financial sector. The *Ministerial Understanding on ASEAN Cooperation in Finance* (March 1997) sets out the broad goals of cooperation in diverse areas of finance and macroeconomics, including banking, capital markets, insurance matters, taxation and public finance, as well as in exchanging information on developments affecting ASEAN countries in various multilateral and regional organizations.

Recently, the most visible ASEAN endeavors in the area of finance in ASEAN relate to the Chiang Mai Initiative (CMI). Together with China, Japan, and South Korea, the "ASEAN+3" group has developed an embryonic swap arrangement (coming to approximately $12 billion as of mid-2002, with an additional $7.5 billion under the New Miyazawa Initiative[10],[11]) and other means to provide liquidity should another crisis occur. The currencies available under the swap arrangement are those of the Triad, i.e., the US dollar, yen, and euro. The CMI is generally complementary to IMF financial resources and, in fact, countries drawing on the facility must accept IMF conditionality, though the swap arrangement allows for 10 percent to be accessed automatically, i.e., free of IMF conditionality. In addition, the new ASEAN Swap Arrangement (which actually dates back to 1977) specifically allows for the eventual accession of the CMLV countries[12].

Some nations have suggested that a surveillance mechanism is necessary if the CMI approach is to blossom; in fact, the ADB has already been active in supporting surveillance, from the creation of the ASEAN Surveillance Unit in the ASEAN Secretariat to direct support in ADB member-state finance ministries. Monitoring and surveillance will no doubt be a difficult sell in many Asian countries if the goal is a Maastricht-type approach to regional cooperation. However,

[10] According to Japan's "Expert Group on the Challenges of the Asian Economy and Financial Markets," the exact numbers are as follows: South Korea: CMI=$2 billion (4 July, 2001), dollar-won swap; NMI=$5 billion; Thailand: CMI=$3 billion (30 July, 2001), dollar-baht swap; Philippines: CMI=$3 billion (27 August, 2001), dollar-peso swap; Malaysia: CMI=$1 billion (5 October, 2001), dollar-ringgit swap; NMI: $2.5 billion; China: CMI=$3 billion (28 March, 2002), yen-renminbi swap. The authors would like to thank Professor Naoyuki Yoshino for these details.

[11] The New Miyazawa Initiative essentially extends short-, medium- and long-term financial and technical support to developing Asian countries, mostly through concessional loans, independently and in cooperation with the Asian Development Bank and the World Bank.

[12] The CMLV countries refer to the new ASEAN members of Cambodia, Myanmar, Laos, and Vietnam.

to the extent that activities are mainly devoted to uniform data gathering and presentation and the compilation and dissemination of other information necessary for dialogue on macroeconomic and financial affairs, they could play a useful role in promoting transparency. In any event, the CMI, along with discussions to create a possible Asian Monetary Fund, constitutes an important step in what will likely be a long process of closer monetary and financial cooperation.

Realizing the importance of developing capital markets in the region, the ASEAN Finance Ministers endorsed a Finance Work Programme designed to deepen capital markets in the region. In the Joint Ministerial Statement of the Fourth ASEAN Finance Ministers Meeting (25-26 March 2000), the ministers agreed that ASEAN should "…further strengthen corporate governance practices, including transparency and disclosure, and establish a regional framework for the development of the ASEAN Bond Market. ***Our aim is to develop and deepen ASEAN's capital markets, particularly bond markets***." (emphasis added).

In December 1999, the ASEAN heads-of-government focused on the need to move towards greater regional cohesion and economic integration, as expressed in the ASEAN Vision 2020 statement. In this document, they pledge, among other things, to maintain regional macroeconomic and financial stability through closer cooperation in terms of monetary and financial policies. Moreover, the next year in Vietnam they agreed to the "Ha Noi Plan of Action," which calls for: (1) maintenance of financial and macroeconomic stability; (2) strengthening of the financial systems; (3) liberalization of financial services; (4) intensification of cooperative efforts in monetary, tax, and insurance matters; and (5) ***developing ASEAN capital markets***.

IV. The ASEAN Bond Markets: A Brief Overview

As will be seen in the analysis below, many of the ASEAN countries have common characteristics, though the region is sufficiently diverse as to require a considerable amount of harmonization before an ASEAN Bond Market can be developed. Suffice it to note here that one critical common element in the original ASEAN countries is the clearing and settlements system. Each of these countries either has in place the Real Time Gross Settlements System (RTGS), or has plans for its implementation (e.g., the Philippines and partial implementation in Indonesia and Thailand). This system has been designed as a means of handling large fund transfers, and has been adopted by a number of countries, including the G-10, EU, Japan, Hong Kong, South Korea, and China. It is a settlement system in which fund transfers (processing and final settlement) take place continuously. To the extent that fund availability permits, RTGS can essentially reduce the settlement lags to zero, and primary risk can be eliminated. It does not *necessarily* net out debit and credits but can do so ("netting" is an additional approach that is becoming more popular in countries like the United States). It reduces considerably the duration of liquidity and credit exposures, and is accepted internationally as a vehicle of sound market infrastructure for risk management.

While they differ considerably in terms of culture, history, and socio-political institutions, the economies of the ASEAN-4 are similar in a number of ways. In particular, they are all resource-rich economies that have adopted economic liberalization policies indicative of an outward-oriented development stance, especially since the mid-1980s. They are all original members of ASEAN and AFTA, APEC, and are active participants in the WTO. Importantly, they are affected by the same types of external shocks in the global economy. They are also increasingly sensitive to macroeconomic policies adopted by each other. This became readily apparent during the Asian Currency Crisis, in which the ASEAN-4 represented Ground Zero.

Over the past few years, the ASEAN-4 countries have been focusing their efforts on the resolution of the crises in their respective banking systems. This process has been extremely costly and difficult, and while much has been accomplished, much remains to be done. In a recent publication,[13] the Asian Development Bank notes that, as of year-end 1998 (i.e., well before the end of the Crisis), the estimated cost of bank restructuring in the ASEAN-4 came to: US$43 billion in Thailand (32 percent of GDP), US$70 billion in Indonesia (29 percent of GDP), US$13 billion in Malaysia (18 percent of GDP), and US$3 billion in the Philippines (4 percent of GDP). The annual interest costs on government-bond issues to pay for bank restructuring as a percentage of GDP came to 3 percent, 3.5 percent, 1.3 percent, and 0.5 percent in Thailand, Indonesia, Malaysia, and the Philippines, respectively. Perhaps more ominously, the IMF estimates of NPLs in these four countries as a percentage of total loans (percentage of GDP) came to 50 percent (70 percent), 70 percent (53 percent), 30 percent (42 percent), and 15 percent (5 percent), respectively. In short, it is obvious that the Asian Crisis has been extremely costly to the financial systems of the ASEAN-4 countries.

An important reason why the ASEAN-4 countries have been in favor of taking a regional approach to capital-market development is the recognition that (1) as was noted above, it is important to reduce reliance on banking in their financial systems and avoid the currency and maturity mismatches of the past; bond-market development is one way to do this; and (2) since they are all in the same situation, a regional approach to these matters, where appropriate, should be explored.

With respect to the ASEAN-4 bond markets, the IMF's International Finance Corporation (IFC) maintains a complete database of government and corporate issues in Indonesia, Malaysia, Philippines, and Thailand. Aside from the Thai government bond index and the Malaysian corporate bond index, however, data are too limited to construct additional indexes.

Domestic bond markets of the other ASEAN-4 countries have been developing rapidly, albeit at different speeds and from different initial conditions. The IFC offers a Bond Database as part of its Emerging Markets Information Center. In general, government bonds constitute the largest part of the market, but corporate bonds are important as well. Table 1 below presents summary statistics on the size and composition of the markets.

[13] Asian Development Bank, 1999. *Rising to the Challenge in Asia: A Study of Financial Markets*, Volume 2, Special Issues, p. 6.

Table 1
Bond Market Size and Composition
December 31, 1999
(US$ and percentages)

COUNTRY	Size US$	Growth 1989-99	Gov't	Corporate	State Co.	Municipal
Indonesia	3,941	422	46.9	36.8	14.5	1.8
Malaysia	41,733	81	49.4	42.4	8.2	0.0
Philippines	3,191	197	63.5	35.4	1.1	0.0
Thailand	28,865	246	50.6	16.5	32.9	0.0

Source: International Finance Corporation, Emerging Markets Information Center, www.ifc.org/bond.

Compared to Singapore and the ASEAN-4[14], domestic bond markets are considerably less developed in Laos, Myanmar, Cambodia, and Vietnam. In fact, the Cambodian government has yet to issue bonds, though it is putting into motion legislation that will allow bond issues in the future.[15] With the possible exception of Vietnam, it is difficult to imagine active participation of these countries in regional bond-market initiatives except in the long run. This is true for several reasons. First, at this point in the economic development of these countries, development of a strong banking system is of the essence and should be of the most immediate priority in the CMLV countries. Vietnam's banking system is fairly-well established, but the government has felt compelled to institute a series of banking reforms, especially since it has fairly significant NPL problems in some areas.

Second, the creation of an ASEAN Bond Market will require some legal and regulatory harmonization and sufficient market infrastructure to accommodate cross-border issuance and trading, such as linked clearing and settlement systems. The CMLV countries have a long way to go before these requirements are in place for their national bond markets, let alone a regional market.

As the CMLV countries begin to develop more fully their national bond markets, their membership in ASEAN can be useful in helping them design best-practice techniques. ASEAN is dedicated to ensuring that the CMLV countries take part actively in regional initiatives, to the extent that their governments would like. For example, the new ASEAN Swap Arrangement negotiated as part of the Chiang Mai Initiative allows for the eventual accession of the CMLV countries.[16]

[14] Brunei does not have a bond market yet, though it has plans to develop one.

[15] Plans had been made to begin the process of issuing bonds as early as 1997, but economic and political disturbances in Cambodia, as well as in the region as a whole, put this project on hold.

[16] UNCTAD, 2001. *Trade and Development Report, 2001* (Geneva, United Nations), p.125.

Fourth, in creating a regional bond market, or even in drawing the interest of international investors, it is important for countries to have transparent financial regimes and liberal policies with respect to foreign exchange and capital controls. All of the CMLV countries have foreign-exchange and capital controls to varying degrees. Such controls became more common in some of the other ASEAN countries with the Asian Currency Crisis, but to a much smaller degree than the CMLV countries(and probably only on a temporary basis).

Fifth, and perhaps most importantly, in order to develop the national bond markets, as well as to participate in a regional market, all countries should have a clear vision as to where they would like to go with capital market development and deepening. This requires support from the highest levels of government, and this does not appear to be present in all countries.

V. Interest-Rate Analysis and Comparison: Some Evidence in Favor of an ASEAN Bond Market

Interest rates across ASEAN countries might be studied in a comparative context, both with respect to individual member-states and in comparison to the United States, Japan, and Germany, in order to judge the potential gains for further development of the ASEAN Bond Market. The table below presents summary statistics based on the interest rate data provided by the IMF. The table presents averages of nominal interest rates in three categories (government bonds, treasury bills, and money markets) and inflation rates, and calculates the *ex post* real interest rate.

Let's begin with the example of Thailand, whose government bond market is fairly-well developed. For the period 1980-2000, real interest rates in Thailand seem to be higher than real interest rates in the United States, Japan, and Germany. This suggests, *ceteris paribus*, that there would be gains from a further development of an ASEAN Bond Market by integrating the market with bond markets in the major financial centers of the world. Such integration would lead to additional capital inflows to Thailand as investors seek the higher return on Thai bonds, and hence convergence of interest rates. In equilibrium, Thailand would have more capital and lower interest payments.

The IMF reports Treasury bill interest rates for Malaysia and the Philippines (and, for a more limited period, Singapore). Although these are short-term instruments, some additional observations regarding interest-rate conditions can be made. Interest rates have been relatively high in the Philippines and relatively low in Malaysia, in both nominal and real terms. No doubt, this is due to higher risk in the Philippines market as well as capital controls during this period in Malaysia. In theory, ASEAN capital market integration would allow more capital to move from the low-interest-rate country of Malaysia (where the cost of capital is thus lower) into the high-interest-rate country of the Philippines (where the rate of return on capital is higher). Such intra-regional flows would benefit capital owners in Malaysia, who would receive higher yields on their capital, and would benefit borrowers in Philippines by lowering their cost of borrowing to finance investment. In fact, interest rates in the Philippines have been higher than those in the United States and Germany, and interest rates in Malaysia have generally been even lower than those in the United States and Germany. Integration of the ASEAN capital markets with the capital markets in other global financial centers would enhance these benefits. The short history of Treasury bills in Singapore suggests that nominal interest rates have been quite low, and slightly lower than actual inflation, so that the *ex post* real interest rate has been negative.

Table 2
Average Nominal Interest Rates, Inflation Rates, and Ex Post Real Interest Rates 1980-2000

	1980-2000			1994-2000		
COUNTRY	Interest Rate	Inflation Rate	Real Rate	Interest Rate	Inflation Rate	Real Rate
PANEL A: GOVERNMENT BOND RATES						
Thailand	9.82	4.70	5.12	9.05	4.28	4.77
Myanmar	-	-	-	11.08	18.53	-7.45
US	8.14	3.90	4.24	6.01	2.53	3.48
Japan	4.73	1.60	3.13	2.09	0.28	1.80
Germany	6.66	2.47	4.18	5.25	1.60	3.66
PANEL B: TREASURY BILL INTEREST RATES						
Malaysia	4.95	3.46	1.50	4.90	3.35	1.55
Philippines	14.38	10.31	4.07	11.40	7.16	4.24
Singapore	-	-	-	1.20	1.28	-0.08
US	6.56	3.90	2.66	4.90	2.53	2.38
Germany	5.43	2.47	2.95	3.74	1.60	2.14
PANEL C: MONEY MARKET INTEREST RATES						
Indonesia	15.39	10.55	4.84	19.92	14.36	5.56
Malaysia	5.73	3.46	2.27	5.47	3.35	2.12
Singapore	4.99	2.11	2.88	3.24	1.28	1.97
Thailand	9.70	4.70	5.00	7.97	4.28	3.69
US	7.18	3.90	3.28	5.20	2.53	2.67
Japan	4.08	1.60	2.48	0.70	0.28	0.41
Germany	5.72	2.47	3.25	3.72	1.60	2.12

Source: IMF, *International Financial Statistics*, compiled by the International Monetary Fund.[17]

[17] The interest rate is the annual average, and inflation is the percentage change in the consumer price index from December to December. Both variables are in natural logarithmic terms, and the ex post real interest rate is the nominal interest rate minus the inflation rate.

Data on money market interest rates reinforce some of the previous conclusions and provide some additional comparisons. Interest rates have been relatively high in Thailand, in both nominal and real terms, suggesting again that benefits of further capital market development and integration could draw capital into the country. In addition, nominal and real interest rates have been high in Indonesia, suggesting that -- like Thailand -- further capital market development and integration could draw capital into the country.

Of course, this analysis, consistent with the IMF approach, assumes, *inter alia*, constant risk across countries. While ASEAN-4 member-state sovereign bonds no doubt have a smaller degree of risk dispersion than, say, the ASEAN-6 and certainly the ASEAN-10, risk differentials are still important. S&P and Moody's rankings as of 2001 show that at least Indonesian debt is considerably below the average (CCC+); Thailand, Malaysia, and the Philippines approximately in the same range (around the BBB's); and Singapore ranks among the second-tier best of the developed countries. Indeed, money market interest rates in Malaysia and Singapore have been roughly similar to those in US, Japan, and Germany. The money markets in Malaysia and Singapore are fairly well developed, suggesting that longer-term bond markets can now be developed on this foundation.

Hence, interest-rate differentials to some degree are indicative of capital-market imperfections, either through exchange controls, capital controls, or information asymmetries, all of which could be improved through the process of bond-market development and the creation of an ASEAN Bond Market.

For example, one requirement of developing an ASEAN Bond Market and integrating it with global financial centers is that barriers to cross-border bond transactions need to be minimal. The table below lists the restrictions on international capital flows and cross-border bond transactions as reported to the International Monetary Fund for its *Annual Report on Exchange Arrangements and Exchange Restrictions*.

Table 3

COUNTRY	RESTRICTIONS APPLICABLE TO CROSS-BORDER BOND TRANSACTIONS
Brunei Darussalam	None
Indonesia	not regulated
Laos	all capital transactions require Bank of Laos (central bank) authorization
Malaysia	Sale or issue locally by nonresidents requires approval. Purchase abroad by residents does not face controls for transactions valued at less than RM 10,000; but for those amounting to RM 10,000 or more, prior approval is required. Sale or issue abroad by residents requires approval.
Myanmar	not available
	Purchase locally by nonresidents: Registration with the Bangko Sentral ng Pilipinas is

Philippines	necessary only if the foreign exchange needed for capital repatriation and remittance of dividends, profits, and earnings that accrue thereon is purchased from the banking system. Sale or issue locally by nonresidents: These transactions are allowed only after the proper license to do business in the country is secured from the appropriate government agency. Purchase abroad by residents: For amounts above $6 million, for which the source is the banking system, prior approval and registration by the Bangko Sentral ng Pilipinas is required. Sale or issue abroad by residents: These transactions are subject to prior approval by the Bangko Sentral ng Pilipinas if principal and interest amortization are to be serviced using foreign exchange purchased from the banking system or guaranteed by public sector entities or local banks.
Singapore	Sale or issue locally by nonresidents: Financial institutions may, without prior consultation with the Monetary Authority of Singapore, arrange Singapore dollar bond issues for nonresidents if the Singapore dollar proceeds from the issuance are used for preapproved economic purposes in Singapore. Financial institutions must consult the Monetary Authority of Singapore when the proceeds are to be used outside Singapore or for purposes not explicitly allowed. The proceeds from all such bond issues must be converted or swapped into foreign currency for the use outside Singapore. Effective November 26, 1999, all rated and nonrated sovereigns and foreign corporations are allowed to issue Singapore dollar bonds. (Previously, only foreign entities of good standing were allowed to issue these bonds.) In the case of unrated corporations, the investor base is restricted to sophisticated investors.
Thailand	The sale or issue of securities is under the jurisdiction of the Securities Exchange Commission (SEC). Under the securities law, different rules and regulations apply to capital market securities (those with maturity of more than one year) and short-term money market securities (those debt securities with a maturity of not more than one year). The regulations imposed on capital market securities are generally stricter than those imposed on short-term money market securities. Companies wishing to issue securities to the public need approval from the Bank of Thailand and the SEC. Sale or issue locally by nonresidents: These transactions require approval of the Ministry of Finance, the Bank of Thailand, and the SEC. Purchase abroad by residents: Purchases require approval of the Bank of Thailand. Sale or issue abroad by residents: The potential issuer must submit an application for approval to the SEC, and permission will be granted if the issuer can prove that the security will be pooled exclusively on primary or secondary markets abroad.
Vietnam	There are controls on all transactions in capital and money market instruments and in collective investment securities.
US	none reported
Japan	None
Germany	none reported

Source: International Monetary Fund, *Annual Report on Exchange Arrangements and Exchange Restrictions*, 2000.

These are official restrictions, and they cannot be "weighted" in terms of importance. Moreover, it is always difficult to assess in a practical manner the severity of these restrictions. For example, even from this table, we cannot gauge the degree of difficulty in attaining authorizations, approvals, and registrations. If the restrictions are not too burdensome, the member-states are in a very good position to develop capital markets both within the region and to integrate them with global financial centers. Of course, it is important to recall that, in contrast to global financial centers such as the United States, Japan, and Germany -- all of which do not have reported restrictions on bond transactions -- the presence of restrictions in ASEAN countries may be burdensome and hinder development of the bond markets. Such barriers will likely require elimination in order to facilitate the development of an efficient regional bond market.

VI. Lessons from the Developed Markets: Key Components of Bond Market Development

An excellent summary of the necessary characteristics of effective bond market development has been compiled in the *Compendium of Sound Practices: Guidelines to Facilitate the Development of Domestic Bond Markets in APEC Member Countries* (APEC Collaborative Initiative on Development of Domestic Bond Markets, September 1999). These guidelines were essentially developed from best-practices in developed countries. Below, we review a number of the issues addressed, and apply them to what would be required of a regional bond market.

2. **Sequencing**.

Efficient bond-markets cannot be developed in a vacuum; they must be created as part of a coherent plan for capital market development. As was mentioned before, banks should continue to play a central role in the ASEAN countries. But there is no reason why other markets should be neglected. In fact, bond-market development can improve bank performance by providing better investment vehicles and a healthier financial sector. Moreover, in developing the bond market, the government should first focus on creating an efficient primary market for government securities. This is important in creating a yield curve that can benchmark other issues. Next, a strong and active secondary market for government securities should be established. Without such trading, the yield curve is much less reliable as a risk-pricing vehicle. Once this is accomplished, the government should work on developing the primary and, eventually, the secondary corporate-bond market.

2. **Supervision and Regulation**.

In order to create a strong and active bond market, protection of investor interests is of the essence. There are three major risks associated with bond investments: credit risk, market risk, and liquidity risk. An investor naturally deals with market risk and some types of credit risk (e.g., sovereign risk) through appropriate asset-management techniques, and principal risk can be reduced effectively to zero through an efficient clearing and settlements system, as discussed below. However, liquidity risk and some types of credit risk can only be minimized through an effective supervisory and regulatory system. This involves the development of appropriate laws and rules governing fixed-income transactions, effective monitoring and auditing systems, transparent accounting practices (e.g., full, timely and accurate disclosure, internationally-accepted standards), and strong communications channels. Governments, however, should be careful not to create an overly-burdensome regime for the private sector. For example, rules and procedures should be predictable, enforceable, and effective. To adapt a famous maxim of Albert Einstein, a regulatory and supervisory regime should be as simple as possible, but no simpler than that.

An efficient supervisory and regulatory framework also requires the advocacy of strong business practices, internal and external checks, and a clear division of labor and objectives of regulatory authorities. The system should also allow for open and transparent rule-making and involve close dialogue with the private sector.

While every country is different and, hence, will always require laws and regulations that are *sui generis*, there exist many common denominators in efficient regulatory and supervisory systems. This is where the development in the EU of the concept of "subsidiarity" is useful; laws and regulations that are necessary for the smooth functioning of cross-border issuances of securities should be adapted at the regional level. However, regional policies should be adopted only where necessary. With respect to supervision, each country should be independent but must agree to common standards and rules of conduct. For example, in the EU, the European System of Central Banks is centralized with the main monetary-policy decision-making authority located in Frankfurt, but supervision and regulation of the banking system is still left to the national central banks.

3. **Market Infrastructure**.

In creating efficient market infrastructure, governments first need to work closely with the private sector in developing procedures that address the three categories of risk cited above (i.e., credit, market, and liquidity). Investors need to be able to monitor, measure, and control these risks in developing their market portfolios. This can only be accomplished in an environment of sound risk practices, transparency, and accountability. Moreover, from a corporate-finance perspective, issuers also need to have easy, reliable access regarding rules, regulations, issuing procedures, and the *modus operandi* of the local securities market.

Next, eliminating principal risk and creating an efficient bond market requires an effective clearing and settlements system. Developing such a system is a high priority in all ASEAN countries with a bond market. As was noted above, a delivery-versus-payment system, such as RTGS, essentially reduces principal risk to zero, expedites trading, and, if the system has a "critical mass" of transactions, reduces transactions costs. The RTGS establishes transfer instructions for the exchange of securities and payments on a trade-by-trade (gross) basis with final transfer between buyer and seller occurring at the same time ("real time"). In this process, all securities settlements are final. Moreover, the delivery-versus-payments approach should provide protection against liquidity risk, i.e., the possibility that one party will not be able to settle the transaction within the agreed time frame.

All developed-country markets have in place a delivery-versus-payments system, working at various levels of sophistication. The ASEAN-5 countries either already have in place a RTGS, are in the process of implementing the system, or are in fairly-advanced stages of introduction.

An additional advantage of a common RTGS system is that it will make linking such systems to each other in an ASEAN Bond Market that much easier. Many of the world's most active clearing and settlement networks are linked directly. For example, Hong Kong has established the Central Moneymarkets Unit (CMU), which is a centralized electronic depository for debt instruments. The CMU is actually linked to the Euroclear and Clearstream systems, as well as to others in the region (e.g., in Australia and New Zealand). While liquidity in this system appears to be somewhat of a problem, the CMU has been praised as a potentially-important model for linking of systems in a regional bond market.

An oft-neglected aspect of market infrastructure regards human capital development. Maximizing risk-adjusted returns in investment portfolios, developing active long-term investment strategies, working with clients, and the like requires a well-trained managerial and financial workforce. In addition, from the government side, regulatory and supervisory authorities need to be well-prepared in order to ensure a smooth functioning of the system. All this requires significant training and investment in human capital.

4. **Market Deepening**.

Bond-market deepening is also a pervasive goal in ASEAN. In fact, the most basic objectives behind the creation of a regional bond market relate to the goal of deepening and expanding bond markets. This involves making the region more attractive for local, regional, and international investors. Hence, any initiatives taken to strengthen local bond markets and create a regional market need to bear this in mind.

A key priority is liquidity. As will be discussed at length in the next section, active trading is necessary in order to construct a reliable yield curve, promote the corporate and secondary markets, and reduce transactions costs in the clearing and settlements system. International investors are reluctant to enter markets that are not liquid. Even the Japanese market, which is huge, has relatively low international "action" because the market is deemed to be fairly illiquid.

Second, market deepening requires a competitive trading structure, a standardized settlements process, and many market participants. The latter is especially important in the ASEAN context, as most markets are dominated by only a few players. A competitive dealer structure needs to be maintained, and market-makers should be encouraged. Third, there needs to be regular, competitive bond auctions that are well-publicized. Fourth, taxation of bond transactions needs to be minimized. Moreover, the tax structure should not create a bias against the bond market. Fifth, it is probably not a good idea to have minimum credit rates for bond issuers. We will discuss credit-rating agencies at length below. However, the problem with minimum ratings is that experience has shown a tendency for such ratings to divert issuance into unregulated channels, and this could hurt a country's risk profile. Finally, many experts have underscored the need to create active derivatives markets in order to support bond-market development. This is necessary at higher stages of development. For example, this is a priority in the case of Singapore.

VII. Promoting Liquidity in a Regional Market: Credit-Rating Agencies and the Currency Question

As was noted above, most ASEAN countries suffer from liquidity problems in primary and secondary bond markets, albeit to different degrees. The reasons are many, varying from the typical buy-and-hold strategies of the institutional investors who dominate the market to regulations and taxation that inhibit trading. But without sufficient liquidity in bond trading, it is difficult for bond markets to serve their most important purposes. First, insufficient liquidity in the market renders the yield curve less reliable as a means of pricing risk in the economy. Second, market infrastructure sometimes requires a "critical mass" of trading before it becomes efficient. Third, an important goal of a regional bond market is the attraction of international investors, and lack of liquidity is a strong disincentive for foreigners to become active in the market.

It would be difficult to gauge just how important the liquidity problem is. Obviously, any quantitative indicators would have to be subjective. Nevertheless, Table 4 offers some information on relative bond turnover in ASEAN countries and several other Asian countries. Data are not readily available for some countries, e.g., the Philippines and Indonesia. However, it is clear that turnover is quite low in all ASEAN countries. Singapore, for example, has seen its turnover as a share of market value actually fall from 4.6 percent in1994 to 2.0 percent in 1999. Even Japanese turnover (not reported in Table 4) is low at only 1 percent in 1999, down from 5 percent in 1994. (Malaysia is the only exception with fairly high turnover, but from a very small base value of listed bonds).

Table 4
Market Value of Listed Bonds at Year-End and
Listed Bond Turnover on Asian Exchanges
(US$ millions)

	1994		**1997**		**1998**		**1999**	
Country	MV	TO	MV	TO	MV	TO	MV	TO
Hong Kong	NA	NA	NA	NA	110,438	14	98,910	18
Indonesia	444	NA	109	NA	50	NA	21	NA
Malaysia	3,865	879	1,788	908	1,310	139	1,753	1,032
Philippines	NA	NA	NA	NA	0	NA	0	NA
S. Korea	129,990	1,458	132,222	4,103	277,788	11,383	321,697	24,717
Singapore	15,323	27,003	171,626	3,883	182,946	876	198,939	3,909
Taiwan	30,320	303	32,919	683	36,578	1,227	44,284	1,683
Thailand	2,681	22	351	0	352	0	155	0

Source: Adams, Charles, "Challenges and Opportunities for Developing Asian Bond Markets, paper prepared for seminar on *Development of Capital Markets*, 16-20 July 2001, Kuala Lumpur.

Below we look at two areas that will be important in the advocacy of liquidity in a regional bond market: credit-rating agencies, which are essential especially in the development of a liquid secondary market for corporate bonds, and the currency question, focusing on the possibility of an ASEAN basket of currencies.

Credit-Rating Agencies

Credit-rating agencies can be essential in the creation of a vibrant corporate bond market. As they are often used as a regulatory tool for supervisory bodies, regulators need to have sufficient criteria in order to rate credit-rating agencies. The Basle Committee on Banking Supervision suggests the following criteria: objectivity, transparency, credibility, international access, adequacy of resources, and recognition by a national regulatory supervisory authority.

In order to deepen bond-market development in the ASEAN countries and to create a vibrant ASEAN Bond Market, it is essential that steps be taken to promote corporate-bond issues. Creating a deep and liquid corporate-bond market with a strong legal and regulatory infrastructure is a long-term objective of most ASEAN countries. However, with few exceptions, the corporate-bond market in ASEAN is either extremely small or only includes the very-best and largest companies.

Reliable credit-rating agencies will become increasingly important as the corporate side of the market develops. After all, the corporate bond markets in the ASEAN countries, to the extent that they exist, are dominated by only a few firms and, before this situation can change, a great deal needs to be accomplished, e.g., better benchmarks, liquid secondary markets, established market-makers, and, to some degree, a changed mentality with respect to finance on the part of the ASEAN corporate sector. Accomplishing this will take a good deal of time; the credit-rating-agency issue, though important, does not appear to be the most important at least in the short run.

Depending on the type, credit-rating agencies do play an important role not only in addressing the traditional information-asymmetries problem that exists in corporate-bond-market development, but also in promoting transparency in the system and, if successful, bringing in a wide-variety of firms to the bond market. Reputable credit-rating agencies can also help in luring foreign-investor participation to the market. This last point is particularly important in the building of a regional bond market. In order to promote cross-border issuances of corporate debt, there are many information-related bottlenecks that need to be addressed, and a credible system of credit agencies, or even the emerging of ASEAN-wide credit agencies, could be important.

Perhaps mutual recognition of credit agencies in ASEAN would not be necessary in an ASEAN Bond Market. Adopting the Singapore route, i.e., ultimately relying on international credit-rating agencies, is one option (however, rankings by these institutions are quite expensive). Moreover, the market would ultimately be able to decide credibility of the credit-rating agencies. If the agency in one country proves itself to be unreliable, the market will punish it. Hence, market discipline could decide; no cooperation or specific efforts on the part of the ASEAN governments to promote these agencies would be required or even desirable.

Still, it will take a long time for the market to establish reputations. In the meantime, some mutual-recognition approaches to resident credit agencies could be useful. The EU, for example, in its drive for mutual recognition under the Single Market Program quickly found out that it is impossible to do this credibly if certain minimum standards are not met. Otherwise, there would be a race to the bottom, that is, professional certification, product testing, etc., would have an incentive to work out of the same, least-cost country. In creating regionally-acceptable credit-rating agencies, say, from which corporations would have to obtain a minimum rating from 1-2 agencies before a bond offering, ASEAN countries would have to work toward some minimum standards in terms of approach and methodology. In order to ensure that these agencies comply, an ASEAN-wide board would have to be established in order to keep track of the accredited agencies. Once the acceptable standards and methodology are established mutual recognition would make a great deal more sense. Moreover, a board responsible for keeping tabs on accredited agencies could play an important role in stemming any corruption in a manner that would be far quicker than the market itself.

It is important to note at this point, however, that establishing mutual recognition itself will be no mean feat. There currently does exist an ASEAN Forum for Credit Rating Agencies (AFCRA). It holds annual meetings and is completely open to new members from any rating agency in the region. In addition to the annual meeting, AFCRA also holds seminars, undertakes training programs, and exchanges information on ratings-related questions. However, not much has been accomplished in adopting common standards and methodologies in the region thus far. The reasons are no doubt many, but an important one stems from the fact that agencies are reluctant to reveal their methodologies, which could, after all, be their most important "firm-specific asset". Nevertheless, a system could be established through which minimum standards would be expected of any individual agency, with the board monitoring the group. AFCRA members could be actively involved in establishing the minimum standards, methodology, etc., as well as in drawing up the blueprint for the ASEAN agency board. Such a system would allow the agencies to retain their own approach, which obviously would be rated by the market itself, while at the same time creating safeguards and transparency.

In sum, credit-rating agencies will play a critical role in the future development of the national and regional bond market. As Tony Latter, Deputy Chief Executive of the Hong Kong Monetary Authority, remarks in his speech, "Bond Markets: Where Are We Heading?," to Conrad International (12 July 2000):

> Plainly, it is essential that the investor community has confidence in the expertise and integrity of the rating agencies. A more local focus by established agencies, perhaps operating via joint ventures, might ensure confidence. If that is achieved, then the broader application of ratings may help expand the investor base, notably to embrace those institutional or individual investors who cannot themselves afford to make credit assessments of every issue but who are favourably disposed toward bond investment in principle." (p.3).

ASEAN Bond Market and the Currency Question

ASEAN countries have exactly 10 different currencies. One might be tempted to reduce the number to an effective nine, as Brunei Darussalam maintains a perfect peg to the Singapore dollar, based on a currency board. This diversity in the number of currencies presents several salient problems in the creation of an ASEAN Bond Market. The currency issue is one of the most critical--if not *the* most critical--in the creation of a regional bond market, as well as being one of the most difficult to approach. It will be no doubt one of the biggest obstacles in developing active cross-issuance in the ASEAN Bond Market.

In what currency should cross-issuances of bonds in ASEAN be denominated? Monetary union, it was noted above, would best address this issue, as it has in Europe. However, by the reckoning of most if not all experts in the area, monetary union in ASEAN or Asia is a long-term proposition at best. Hence, there are at least three other possibilities: issuances in any/all ASEAN currencies; denominate bonds in a key international currency (such as the US dollar or the euro or the yen); or denomination of cross-issuances in terms of a weighted basket of ASEAN currencies (which, of course, would have underlying correlations with the dollar, yen, and euro to the extent that the ASEAN currencies are linked).

Experts have suggested that the first option would have at least one important drawback: lack of liquidity. While it may be true that the creation of an ASEAN Bond Market would facilitate, say, the issuance of a ruppiah-denominated bond by a Thai company wishing to set up a factory in Indonesia, it is likely that demand for this sort of transaction would be limited. Moreover, lack of liquidity implies high transactions costs in the clearing and settlement systems at national and linked-regional levels. Hence, although national-currency denomination should always be an option for cross-issuances, it would be useful to have other options available.

Denominations in Triad currencies (US dollar, Japanese yen, euro) would have the important advantage of drawing attention among international investors. In fact, several ASEAN countries have successfully issued foreign-currency-denominated bonds, especially in US dollars. However, this practice has become less common since the Asian Crisis; issuances of bonds in terms of foreign currency tend to increase the foreign exposure of the financial system. And since an important reason why ASEAN countries would like to strengthen national markets and develop a regional market is to avoid the "currency mismatch," promotion of a key-currency denomination could be self-defeating. Besides, it is not clear why in this case an ASEAN Bond Market would promote regional cross-issuances; such bonds could be issued in the deep and liquid developed markets.

An option that would be much more feasible in the medium- or even the short-term would be to create a currency basket consisting of the ASEAN currencies. For example, an ASEAN currency basket might aggregate the currencies in proportions according to country GDP. The advantage of using a currency basket is that the bond becomes an obvious vehicle for holding a portfolio of ASEAN currencies, and is typically viewed as a safe alternative to holding just one currency because diversification reduces the exchange risk. Hence, it is able to address directly the currency mismatch and indirectly the maturity mismatch problems discussed earlier. Moreover, it would allow for greater liquidity in the regional market, which would also be important to obtain, *inter alia*, critical mass for the clearing and settlement system.

Let's consider this option from the viewpoint of an international investor, the type of participant that the ASEAN Bond Market would like to attract. Table 5 compares the risk of ASEAN currencies to a GDP-weighted currency basket using historical data from 1990-2000. The currency basket serves to diversify the risk of holding ASEAN currencies to some degree, but there are several individual currencies with lower risk than the basket. This analysis is based on historical data, though, and expectations of the future could be different. In general, investors will prefer the currency basket if they view its riskiness as low or moderate compared to the risk of the underlying currencies.

Table 5
Standard Deviations of Currencies and a GDP-Weighted Currency Basket
(Monthly Percentage Changes in Exchange Rates, 1990-2000)

COUNTRY	with respect to US$	with respect to DM	with respect to YEN
Cambodia	9.10	9.55	9.75
Indonesia	10.11	10.37	10.25
Laos	7.34	7.72	7.99
Malaysia	3.30	4.18	4.45
Myanmar	1.55	2.00	2.67
Philippines	3.27	4.43	4.64
Singapore-Brunei	1.72	2.81	3.04
Thailand	4.10	4.60	4.89
BASKET*	4.06	4.64	4.76

* The weights of the currencies in the basket are based on 1996 GDP: Cambodia, 0.4%; Indonesia, 27.2%; Laos, 0.3%; Malaysia, 12.1%; Myanmar, 14.8%; Philippines, 10.2%; Singapore-Brunei, 12.2%; Thailand, 22.8%. Vietnam is not included due to lack of data on exchange rates. The Brunei dollar is pegged to the Singapore dollar at par and are therefore taken together.

The ASEAN currency basket would work something like the European Currency Unit (ECU) did during the 1980s and 1990s. The ECU was a basket of the currencies of the member countries of the European Community, weighted in line with each country's gross domestic product and foreign trade (and therefore subject to change periodically). It was introduced in 1979 as part of the European Monetary System (EMS), to be used as the benchmark for determining the overvaulation/undervaluation of individual currencies and to serve as a unit of account among the central banks participating in the EMS. No physical ECU notes or coins ever circulated, so the ECU was strictly an artificial denomination. However, certain European banks established a banking product so that lenders and borrowers could carry out transactions in ECU. At first, an ECU transaction was just a portfolio of transactions in the separate underlying currencies; a deposit or loan in ECU typically was recorded as separate deposits or loans in the individual currencies. However, banks soon established a clearing mechanism for the ECU, thus enabling the transfer of ECU without necessarily having to make separate transactions in each of the component currencies. This facilitated growth of the ECU for private commercial transactions; residents could use the ECU as a unit of account for bank deposits and companies could use it for invoicing sales or maintaining their accounting records. The first ECU- denominated bond was issued in 1981, just two years after the introduction of the currency basket. The ECU subsequently became a significant "currency" denomination in the Eurobond markets, outranked only by the US dollar and the German mark. A substantial amount of ECU-denominated bonds were placed privately as well.

The use of the ECU in private transactions developed rapidly because the ECU exchange rate tended to be more stable than those of its component currencies. For European investors and borrowers, a depreciation of an individual home currency against other European currencies is offset by an increase in the home-currency value of the ECU, so there is an incentive to hold ECUs to diversify a portfolio. Similarly, non-European investors and borrowers were drawn to the ECU because it was less risky than the underlying individual currencies. In short, the ECU was an attractive alternative to single foreign currencies because it was less sensitive to the volatility of a single currency.

On January 1, 1999, the euro replaced the ECU on a one-for-one basis as part of the first stage of European Monetary Unification. The fact that the ECU existed for twenty years prior to European Monetary Unification suggests that the simple introduction of a currency basket serves as a useful precursor to closer monetary cooperation. The success of the ECU was partially because of its official status within the European Monetary System binding the central banks of the participating countries together. Its success was also partially because the private sector found a pan-European currency denomination quite useful, and because the banking system was able to accommodate the demand. On January 1, 1999, under the aegis of the European Central Bank, the separate RTGS systems of all European countries were drawn together into the TARGET system. The instant success of TARGET suggests that linkages of RTGS systems are feasible and useful.

VIII. Concluding Remarks

From the above analysis, it is clear that bond-market development is a priority in all ASEAN countries as part of their respective financial deepening programs. ASEAN countries are counting on bond markets to avoid/mitigate many of the problems that were evident during the Asian Crisis, as well as to prepare their financial systems for potential future shocks. This includes rectifying currency and maturity mismatches; providing better vehicles to price risk; opening up alternative sources of longer-term capital flows; fostering more efficient asset management; and establishing a greater presence on international capital markets. While the bond-market is certainly not the only capital market that needs to be deepened in ASEAN--in fact, in the short-run taking care of the banking sector is more urgent in most ASEAN countries--it merits a high ranking among the policy exigencies of the ASEAN countries.

Many challenges face the ASEAN countries in achieving this goal. It is unrealistic to believe that vibrant bond markets can be achieved by government initiative, irrespective of a country's level of economic development, vibrancy of its private sector, and historical experience with capital markets. Moreover, although there are many common legal, regulatory, and market-infrastructure-related measures that should be adopted in creating liquid and efficient bond markets, each country will have its own special characteristics. There exists a three-tier structure in the nature of ASEAN financial development, an important consideration in the creation of a regional bond market.

But this should not be surprising. The U.S., European, and Japanese markets, for example, are sophisticated and well-developed; yet, they vary in terms of their market structures. As ASEAN countries develop their bond markets together, they can learn a great deal from each other. But one must bear in mind that the ASEAN countries are diverse in terms of their economic structure, historical circumstance, and socio-political systems. ASEAN includes a country that is a global financial center boasting a *per capita* income even higher than the OECD median (Singapore); a small, rich country that has yet to create a bond market (Brunei Darussalam); several middle-income countries that have been listed among the "dynamic Asian economies" at one time or another and have at least primary bond markets at various degrees of sophistication (Thailand, Malaysia, the Philippines, and Indonesia); and four transitional economies counted among the least-developed countries (LDCs) with an embryonic bond market (Vietnam) and without one (Cambodia, Laos, Myanmar). Creating a regional bond market out of such a diverse group of countries constitutes a major--though worth-while--endeavor.

In general, capital markets in ASEAN are fairly segmented, even though attempts to integrate ASEAN capital markets are not new. For example, in 1978, the Federation of ASEAN Stock Exchanges was formed (including Indonesia, Malaysia, the Philippines, and Thailand as member-states). Moreover, the Fourth Summit's Singapore Declaration of 1992 placed capital-market development as a higher priority in regional cooperation. But it was not until the Asian Crisis and its aftermath that ASEAN began serious initiatives to integrate capital markets.

Data on non-resident purchases of bonds in the ASEAN countries are difficult to obtain, and where they exist, they are not always reliable. However, studies show in general that: (1) in ASEAN, bond purchases represent as small percentage of total private capital inflows; and (2) there is very little evidence of much intra-ASEAN issuances of bonds. With respect to the former, bonds constituted only about 7 percent of total capital inflows in the early 1990s, with DFI taking on by far the largest share.[18] Hence, when member-state investors and borrowers seek opportunities abroad, they aim at the developed markets, rather than to ASEAN partner-country markets.

In fact, capital outflows from the ASEAN countries are overwhelmingly destined to the developed-country markets in general and the United States in particular. This is because the United States has offered a booming market (until 2001, the U.S. economy had only two years of recession over the past 18 years); diverse, liquid, stable and secure capital markets; and the U.S. dollar constitutes the core international currency. Moreover, investors in the ASEAN countries are more familiar with the developed-country markets than their own, an "information gap" that needs to be bridged.

[18] Dalla, Ismail, and Deena Khatkhate, March 1996. The Emerging East Asian Bond Market, *Finance and Development.*

Throughout this study, we have emphasized the important benefits that the ASEAN countries could reap from the creation of the ASEAN Bond Market, as both a protagonist of local bond-market development and a new market that could stimulate cross-border investments and lure investors from abroad. Below, we summarize these advantages and restrict ourselves to 10 major points**.** In sum, creation of the ASEAN Bond Market, with its salutary effects on local markets, will strengthen ASEAN financial development in general by reducing the need for extra-regional intermediation; increasing the participation in the ASEAN Bond Market on both the demand and supply sides of the market, including higher participation on the part of international participants; creating greater diversity in the financial system; reducing to a minimum the currency and maturity mismatches that in part created the ASEAN financial crisis of 1997-99; and developing a far more efficient capital-market environment in ASEAN, which will allow ASEAN not only to increase regional financial intermediation but also to boost its attractiveness internationally.

1. Bond markets have been growing rapidly globally, especially in the corporate side. It is part of a global financial restructuring that is useful to both developed and developing countries. However, ASEAN countries have been generally left behind in this process (with the exception of Singapore). Growth in demand for bonds internationally offers myriad opportunities for the ASEAN countries in attracting the attention of international institutional investors, investment banks, multinational lending institutions, and the like. Deeper domestic bond markets and the creation of the ASEAN Bond Market would increase investors' interest in the region; harmonization and liberalization that would be necessary in building the ASEAN Bond Market would also render the local markets more attractive, hopefully building the necessary critical mass to put the ASEAN markets on the international radar screen.

2. As part of the financial reform program, ASEAN countries have been trying to diversify their heavy reliance on the banking sector in favor of other financial intermediation vehicles, including equity and fixed-income markets. Over-reliance on the banking system in ASEAN countries has created many risks that could otherwise be avoided. In particular, it limits the way in which a financial system can price risk efficiently, and reduces the options open to investors and borrowers. The ASEAN Bond Market and deepening of local markets could therefore strengthen the financial integrity of the ASEAN countries, thereby mitigating or avoiding financial crises in the future.

3. Demand for bonds in the region has been growing significantly, but resident ASEAN investors tend to purchase bonds from outside the region when seeking portfolio diversification and high yields. Indicators point to a strong increase in this demand in at least the medium and certainly the long term, due to high savings rates, medium-term growth prospects, demographic change, and financial development in the ASEAN countries. Facilitating cross-border purchases of ASEAN member-state bonds would allow greater regional intermediation of this projected boom in investible funds, and would serve to increase the attractiveness of local markets. Both would serve to reduce any currency mismatches. It will also allow for additional investor portfolio diversification options. Moreover, higher levels of cross-border debt issuance and trading activity would enhance liquidity in the local market, which in turn would increase their attractiveness.

4. Growth in the ***supply*** of bonds in ASEAN over the past two decades has been impressive, but the medium/long term potential for ASEAN bond debt issuances is even greater. ASEAN will likely continue to be one of the fastest-growing regions of the world, with a strong demand for credit for (physical and human-capital) infrastructure and investments by the private sector as the economy modernizes and grows. ASEAN countries have also seen a big increase in fiscal deficits, a phenomenon that will likely continue into the medium run. Tapping ASEAN-related and national funds through improved regional and local markets for these investments, rather than merely relying on international capital flows, will permit the region to avoid the currency and maturity mismatches that created and fed the ASEAN financial crisis. Moreover, by increasing liquidity and diversity of bonds in the market, this process will lead to more reliable and longer yield curves, which would allow for better pricing of risk in the market and improve debt-management options in both the private and public sectors.

5. A key problem in fostering financial development in the region has been lack of transparency in national systems. This has been cited as an additional source of the ASEAN financial crisis. Moreover, the diversity of the region in terms of treatment of fixed-income-securities taxation, restrictions on foreign participation in bond markets, and various idiosyncratic investment laws in the ASEAN countries has made cross-border investment difficult. ASEAN investors find that markets outside the region are much easier to navigate, have far lower transactions costs, higher liquidity, and lower principle and credit risks. The ASEAN Bond Market will create a far more attractive environment by increasing transparency and efficiency; reducing transactions costs by lowering taxes and making the tax structures within (i.e., between the bond and other capital markets) and between markets more equitable and understandable; and harmonizing policies making cross-issuances and purchases of bonds much easier.

6. In ASEAN, corporate bond markets tend to be small, and where they are fairly large, they tend to be dominated by a few large, well-established countries and often lack dynamism. Much needs to be done to broaden and deepen participation in the ASEAN corporate markets. There are at least four specific advantages to improving the corporate bond market; First, it can help to avoid the "double mismatches"; second, a vibrant corporate bond market lowers the cost of borrowing by providing an alternative (competitive) vehicle in the financial markets (and, for well-established firms, interest rates on corporate bonds tend to be lower than interest rates applied in the banking sector); third, if the secondary market is well developed, corporate bond market development improves the efficiency of the financial sector by establishing accurate price signals in the market; and fourth, in times of a crisis and its aftermath, less of a reliance on the banking system allows firms to continue to borrow funds from the market when the banking sector is facing its financial restructuring difficulties. Moreover, once the corporate bond market reaches a threshold of sufficient liquidity, economies of scale will reduce transactions costs and lead to a "virtuous cycle". Policies that need to be adopted in order to develop the ASEAN Bond Market will not only facilitate cross-issuances of corporate bonds, but will also help increase participation and liquidity in the local bond markets.

7. Liquidity in the local bond markets has been an important problem in essentially all ASEAN countries. In creating the ASEAN Bond Market, this will continue to be an important consideration, especially since certain market-infrastructure-related elements of the ASEAN Bond Market, such as the clearing and settlements system, will require a "critical mass" in order to be efficient. As the option of denominating bonds in a single ASEAN currency within the ASEAN Bond Market would help address this problem from both the issuers and investors perspectives, the creation of a basket of ASEAN currencies, which might be called the "ASEAN Currency Unit," could be practical, as was the case in Europe (the ECU). Moreover, the ACU will have important indirect effects that, in turn, could strengthen national and the regional markets, for example, in fostering greater macroeconomic cooperation and appropriate regional policies, as well as dovetailing with the Chaing-Mai Intiative process and discussion of monetary integration. This process of financial integration would serve to integrate ASEAN capital markets more fully, bring down the cost of capital while at the same time allowing for greater portfolio diversification, and lead to convergence of regional interest rates. In fact, the considerable interest-rate differentials that exist between the original ASEAN countries to some degree are indicative of capital-market imperfections, either through exchange controls, capital controls, or information asymmetries, all of which could be improved through the process of bond-market development and the creation of an ASEAN Bond Market.

8. Increasing DFI inflows in ASEAN has always been a salient policy goal of ASEAN leaders, in particular as a rationale for closer regional economic integration. The ASEAN Bond Market would help stimulate DFI flows by making it easier for multinational companies wishing to set up or expand their affiliates in ASEAN to raise funds locally, which is often a *quid pro quo* for DFI (especially for medium-sized firms).

9. ASEAN has a long tradition in regional economic cooperation, but its most significant successes have been in the area of trade, e.g., the ASEAN Free Trade Area. Yet, substantial potential exists for greater cooperation in the area of finance, especially in light of the financial crisis. An ASEAN Bond Market would be an important step in this direction.

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10. While the degree of financial sophistication within the CMLV countries differs greatly, all have considerably less-sophisticated markets than the original ASEAN countries. Nevertheless, each has plans to improve their respective financial systems, including creating or expanding local bond markets. The ASEAN Bond Market would prove a useful "blueprint" for best-practices in developing bond markets in the CMLV countries, and would serve as an important incentive to foster development of the local market as a means to exploit the potential advantages of greater regional capital flows and DFI, as well as the domestic market.

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