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Creation of a regional credit guarantee mechanism in Asia

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1. Introduction

The development of the bond market has become one of the most significant policy goals in Asia. It is widely considered an important step towards preventing another financial crisis. There is a region-wide realisation that heavy dependence on bank-intermediated financing, especially on foreign currency short-term financing, was one of the main causes of the Asian financial crisis. Asia's dependence on bank-dominated financial systems supported rapid economic growth, but left the corporate sector over-reliant on short-term bank loans, which made the financial system - and entire economies - vulnerable to external shocks. The development of local currency bond markets has, therefore, become one of the important policy initiatives in Asia to prevent another financial crisis in the region.

The importance of developing the region's bond markets has also increased recently as the need to recycle the vast amounts of accumulated official foreign exchange reserves directly into the region has risen. Since the financial crisis, Asian countries have accumulated substantial foreign exchange reserves, partly as a result of huge current account surpluses reflecting high personal savings and subdued investment demand. This increase in foreign exchange reserves was, initially at least, an intentional policy in response to Asian countries' realisation that a lack of foreign currency liquidity caused the crisis. Unfortunately, however, Asia could not benefit much from these reserves since most of them have been invested in developed markets such as the United States and Europe. Capital flows from developing economies where investment returns are higher than in mature economies. The reserves are recycled back into the region in the form of risky assets such as equities and foreign direct investment. There are thus huge missed opportunities for capital market development in Asia. Until the Asian bond markets are fully established, East Asian borrowers will have to turn to the international financial markets. In order to facilitate the recycling of regional savings and to prevent the recurrence of a financial crisis, both Asian policymakers and economists concur that sound and liquid bond markets must be developed.

With this recognition Asian countries have stepped up their collaborative efforts to develop and strengthen the bond markets in the region through diverse forums such as ASEAN+3, APEC, EMEAP and ACD. Since late 2002, experts and policymakers in Asian countries have exchanged their views and ideas on various issues relating to the development of bond markets. One of the most important policy issues that have been intensively discussed by policymakers and markets experts is how to develop and strengthen the credit guarantee mechanism in the region. Development of a credit guarantee market is thought to be critical for the development of the regional bond market, as one of the most critical factors hindering the development of the regional bond markets is the credit quality gap between the low credit ratings of issuers and the minimum credit requirements of investors.

This paper is organised as follows. The next section reviews the recent progress of discussions on the development of the Asian bond markets. In particular, we discuss the efforts by ASEAN+3, APEC and EMEAP. Section 3 provides an overview and discusses the characteristics of the Asian bond markets. In addition, we explain why progress in the development of the bond markets in Asia has been limited. Section 4 explains the rationale and background for creating a new regional credit guarantee mechanism, focusing on the

credit quality gap problem and the limits of the existing guarantee institutions in meeting the need for guarantees in Asia. Section 5 presents possible options for a new guarantee institution including attributes, business strategy and institutional forms. Section 6 concludes with a discussion of policy implications.

2. Progress of discussions on the development of Asian bond markets

A. ASEAN+3: Asian Bond Market Initiative (ABMI)

An informal meeting of the ASEAN+3 Finance Ministry Deputies and Central Bank Deputies (AFDM+3) was held in Tokyo in November 2002 to discuss specific ways to develop the Asian bond markets under the ASEAN+3 framework. A month later, in Chiang Mai, Thailand, a comprehensive plan for the development of the regional bond market, the Asian Bond Market Initiative (ABMI), was endorsed.

On 28 February 2003, an informal session on "Fostering Bond Markets in Asia" was held by AFDM+3 in Tokyo, Japan. Various proposals were presented by member countries to contribute to the development of the bond markets in the region. The delegates agreed to further study those proposals in depth to achieve tangible results as soon as possible. Reflecting the proposals and opinions of the delegates, six working groups of volunteers were established to conduct detailed studies on various aspects of bond market development (see Table 1).

Table 1

The six working groups of the ABMI

Working group	Chair country
1. Creating new securitised debt instruments	Thailand
2. Credit guarantee and investment mechanisms	Korea and China
3. Foreign exchange transaction and settlement issues	Malaysia
4. Issuance of bonds denominated in local currencies by multilateral development banks (MDBs), government agencies and Asian multinational corporations	China
5. Local and regional rating agencies	Singapore and Japan
6. Technical assistance coordination	Indonesia, the Philippines and Malaysia

The working groups analyse two areas: (i) facilitating market access through a wide variety of issuance and (ii) creating an environment conducive to developing bond markets. The issues related to market access include: (i) bond issuance by Asian governments to establish benchmarks, (ii) bond issuance by Asian governments' financial institutions (governments) to finance domestic private enterprises, (iii) creation of asset-backed securities markets, including collateralised debt obligations (CDOs), (iv) bond issuance by multilateral financial institutions and government agencies, (v) bond issuance for funding foreign direct investment in Asian countries and (vi) issuance of bonds in a wider range of currencies and introduction of currency basket bonds. The issues concerning the creation of an environment conducive

to active participation by both issuers and investors are: (i) provision of credit guarantees, (ii) improvement of the credit rating system, (iii) establishment of a mechanism for disseminating information, (iv) improvement of the settlement system and (v) strengthening of the legal and institutional infrastructure for bond market development.

The Working Group on Credit Guarantee and Investment Mechanisms chaired by Korea and China focuses on ways to promote the use of credit guarantee mechanisms in Asia. Many government delegates and market experts agreed on the need to study this issue in a more comprehensive and systematic way to produce a practically workable proposal. Also, the Asian Development Bank (ADB) decided to contribute to the creation of an appropriate regional credit guarantee mechanism to support the development of the domestic and regional bond market in ASEAN+3 countries.

B. APEC: securitisation and credit guarantee

The development of the regional bond markets has long been seen by APEC economies as an important objective in the broader effort to promote greater openness, diversity and competitiveness in regional financial markets. This position was reaffirmed most recently in the APEC Finance Ministers' Joint Ministerial Statement of September 2002 and the APEC Leaders' Declaration of October 2002 in Los Cabos, Mexico. The objectives of this initiative are to identify impediments to the development of securitisation and credit guarantee markets within the APEC economies and to propose appropriate solutions to remove them. Securitisation coupled with credit enhancement offers significant benefits for developing markets to the extent that it helps reconcile credit and liquidity mismatches between issuers and investors and can also facilitate balance sheet restructuring.

This APEC initiative on the development of securitisation and credit guarantee markets is highly action-oriented, and it is co-chaired by Hong Kong SAR, Korea and Thailand. This initiative involves (i) holding policy dialogues for the APEC economies to exchange views on the use of securitisation and credit guarantees at the national and regional levels and (ii) sharing experience among APEC economies in identifying impediments and developing detailed action plans. The first policy dialogue was held in April 2003 in Seoul. So far, nine APEC member economies have participated in the initiative, either by sponsoring experts or by seeking expert advice on how to remove impediments in their markets. They are Australia, China, Hong Kong, Japan, Korea, Mexico, the Philippines, Thailand and the United States. Through collaboration among expert panels, domestic interdepartmental taskforces and private sector advisory groups, action plans at the economy level have been drafted to remove impediments to the development of securitisation and credit guarantee markets in individual APEC economies.

C. EMEAP: Asian Bond Fund (ABF)

The ABF is the first fund of its kind in the region. The first phase of the initiative, ABF1, was launched in 2003 and is fully invested in US dollar-denominated bonds in the EMEAP economies. Since then, EMEAP has been working on the second phase of the project: broadening the ABF to cover bonds denominated in local currency, or ABF2. Both phases of the initiative are aimed at promoting the development of the bond market by improving the domestic and regional bond market infrastructures.

1. ABF 1: the critical first step

The establishment of ABF1 was announced in June 2003. All 11 EMEAP central banks invested in ABF1 at its launch, which had a capitalisation of about US$ 1 billion. The fund is now fully invested in US dollar-denominated bonds issued by sovereign and quasi-sovereign issuers in eight EMEAP economies (China, Hong Kong, Indonesia, Korea, the Philippines,

Malaysia, Singapore and Thailand). The developmental benefit of ABF1 is more than the first-round demand effect of US$ 1 billion invested by the central banks. Indeed, the seed money invested by EMEAP central banks serves to attract additional money from the private sector, thereby deepening and broadening the demand in the markets. The promotional effect of ABF1 would generate second-round investor and issuer interest in the Asian bond markets, broadening the investor base and increasing market liquidity over time.

Furthermore, the ABF1 initiative is a milestone in regional central bank cooperation. As noted, ABF1 is the first of its kind in Asia, and its success is as symbolic as it is material. The successful launching of ABF1 not only sent a strong message to the financial markets that the regional authorities are committed to stepping up their cooperative efforts in promoting bond market development, it also paved the way for the development of ABF2. The remarkable one-year time frame from the initial discussions to the actual commitment of funds and the subsequent launching of ABF1 testifies to the rapport and sense of ownership among EMEAP members, which will prove valuable towards the development of ABF2. ABF2 will involve many more complex and technical issues than ABF1, and the precedent of ABF1 should be very helpful in efforts to garner political support and commitment in the challenges to the development of ABF2.

2. *ABF2: the bold new second phase*

Building on the momentum of developing ABF1, EMEAP has proceeded to study the feasibility and design of ABF2. Owing to the complexity of the project and the likelihood of opening up the funds for private sector investment in the future, the EMEAP Group has appointed financial advisers from the private sector to advise on the design and structure as well as the construction of benchmark indices for ABF2.

In April 2004, the EMEAP Group issued a press release setting out the basic design and latest thinking behind ABF2. It was proposed that ABF2 would consist of two components: a Pan-Asian Bond Index Fund (PAIF) and a Fund of Bond Funds (FoBF) (Figure 1). While many issues regarding ABF2, such as fund size and detailed fund structure, have yet to be determined by EMEAP after having taken into account such factors as market conditions, the latest thinking on ABF2 is described below.

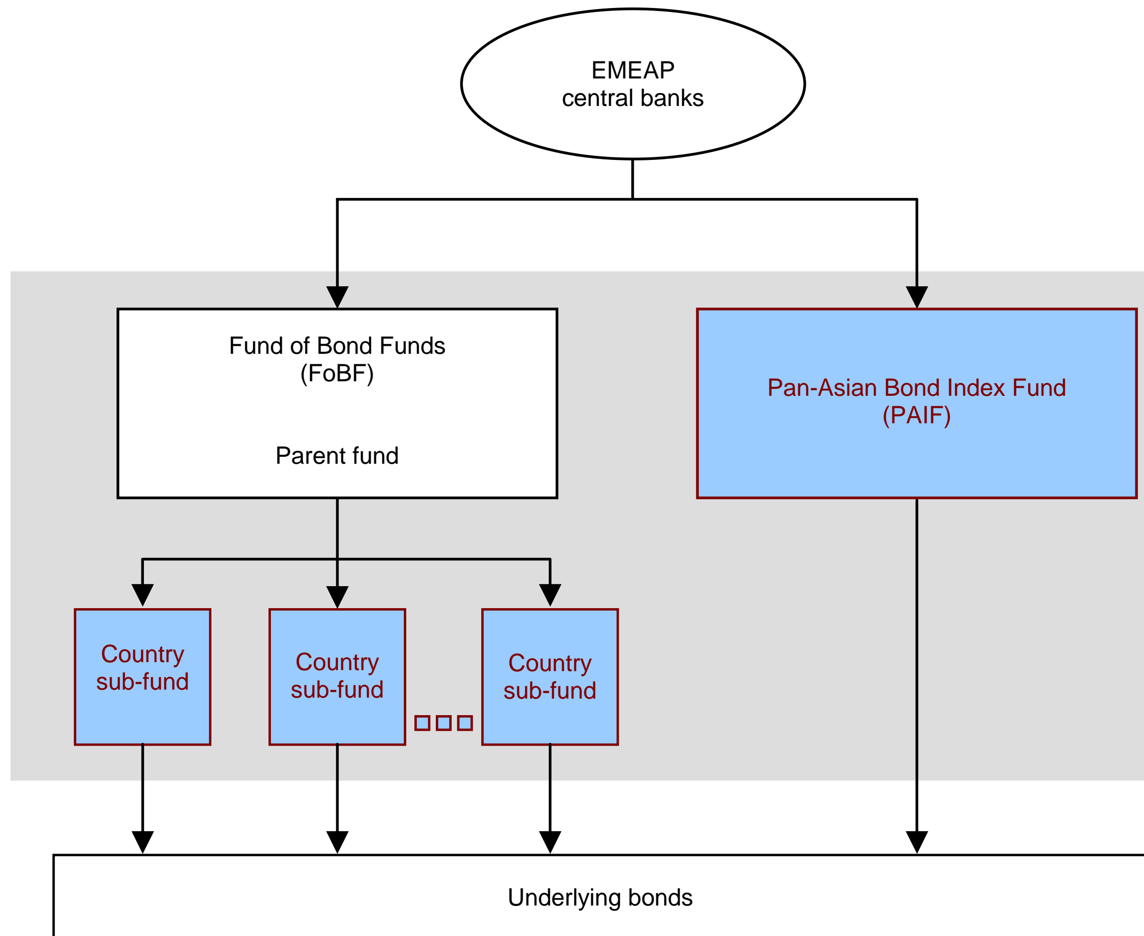
The preliminary framework of ABF can be described as follows. PAIF is a single bond index fund investing in local currency-denominated bonds in EMEAP economies. It will act as a convenient and cost-effective investment fund and new asset class for regional and international investors who wish to have a well diversified exposure to bond markets in Asia.

The FoBF is a two-tier structure with a parent fund investing in a number of country sub-funds comprising local currency-denominated bonds issued in the respective EMEAP economies. While the parent fund is confined to EMEAP investment, the country sub-funds are intended to provide local investors with low-cost and index-driven investment vehicles and at the same time give regional and international investors the flexibility to invest in the Asian bond markets of their choice.

The ABF2 funds are intended to be passively managed against a set of transparent and predetermined benchmark indices, covering local currency bonds issued by sovereign and quasi-sovereign issuers in EMEAP economies. ABF2 is being designed in such a way that it will facilitate investment by other public and private sector investors. In addition to attracting additional money into the bond market, as in the case of ABF1, ABF2 seeks to achieve a larger and longer-lasting positive impact on regional bond market development. Several features of the design of ABF2 are conducive thereto.

Figure 1

ABF2 framework



ABF2 is likely to have a long-lasting impact on market development in addition to its effect on demand from the seed money invested by EMEAP. In the process of the development of ABF2, individual EMEAP economies can leverage the interest and momentum generated from the collective investment in ABF2 to further develop their domestic bond markets as appropriate. For instance, the appropriate EMEAP members can work with the relevant authorities to improve market infrastructure by identifying and minimising the legal, regulatory and tax hurdles in their markets, thereby facilitating the creation of fixed income products in the region. The momentum and political impetus generated from the development of the fund could perhaps help harmonise regulatory procedures, eg cross-registration of bond funds, and the cross-issuance and trading of bonds, and help address the issue of fragmentation of regional bond markets.

ABF2 will also improve bond market infrastructure by encouraging the development of transparent, replicable and credible bond market indices for use in the PAIF and the FoBF country sub-funds. There is currently a lack of low-cost, passively managed index bond funds in most EMEAP economies, and most of the existing funds available in the markets are actively managed. Furthermore, the performance yardsticks for these funds vary substantially. It is hoped that the ABF2 bond indices would be widely adopted by private sector fund managers as benchmark indices for their fixed income products. For instance, private sector participants could clone or customise (by means of adding in corporate issues, etc) these transparent benchmarks and facilitate the setup of low-cost index bond funds.

Derivative products might also be created based on such indices, which should greatly increase market liquidity.

At the same time, ABF2 would also seek to encourage the development of exchange-traded bond funds (ETFs) in the region. ETFs are new to Asia, but have become increasingly popular and are a fast-growing fund category in the United States and Canada. The development of ETFs will help promote product diversification for both institutional and retail investors, increase market liquidity, provide low transaction cost bond fund products and make the price setting process more transparent. Thus, the seed money invested by EMEAP would also give impetus to product innovation that might otherwise not occur.

3. Asian bond markets: overview and factors hindering their development

A. Overview of the Asian bond markets

The financial structure of most of the Asian countries is dominated by banks. Usually, the size of outstanding bank loans is much larger than that of outstanding bonds. Prior to the Asian financial crisis, Asian countries pursued prudent fiscal policies with balanced budgets. As a result, the government bonds outstanding were very limited. In addition, corporate bond markets were not developed in most of the countries because of the limited supply of bonds and underdeveloped infrastructure. However, since the 1997-98 financial crisis, government bond issues have increased sharply to finance budget deficits resulting from expansionary fiscal policy, bank recapitalisation and rising social safety net expenditures. Corporate bond issuance has also increased in most of the countries. In some countries like Korea, corporate bond issues increased dramatically, mostly led by rapid growth in the asset-backed securities (ABS) market.

Asian bond markets accounted for 24% of the world bond market in 2001 with US$ 6.8 trillion in capitalisation. In recent years, Asian countries have sought to improve their bond markets, yet much remains to be done. In fact, the Asian bond market is in its infancy when compared to the US bond market with US$ 15 trillion capitalisation. Table 2 shows that the ratios of the bond markets as percentages of GDP in most Asian countries are less than 70%, except for Japan. The Japanese bond market accounts for about 85% of the Asian bond market, illustrating the fact that the Asian bond market is still in its initial development stage. Table 2 also shows a high percentage of government bond issuance in Japan, China and Singapore, of corporate bond issuance in Korea, Taiwan (China) and Malaysia, and of financial institutions' bond issuance in Hong Kong.

East Asian countries' bond issuance from 1997 to 2001 is shown in Table 3. The issuance of bonds generally increased during these years, but except for Korea and China, the size of the bond issue is still very small. In addition, the proportions of Asian stock markets to GDP are relatively higher than those of the bond markets. For instance, the capitalisation of the Hong Kong stock market is three times the size of GDP, while its bond market is only 38.1% of GDP. Indonesia's bond market remains at only 5.1% of GDP, and that of China is only 18.0%.

Table 2

Asia's bond market capitalisation, 2001

In billions of US dollars and percentages

	Total bonds outstanding (A)	Government bonds outstanding (B)	Financial institutions' bonds outstanding (C)	Corporate bonds outstanding (D)	(B)/(A)	(A)/GDP
Philippines	21.6	20.5	–	1.1	94.9	30.3
Thailand	36.2	18.4	12.1	5.7	50.8	31.5
Hong Kong SAR	43.6	14.6	24.0	5.0	33.5	26.6
Singapore	52.2	29.0	17.5	5.7	55.5	61.0
Malaysia	82.8	32.0	8.4	42.4	38.6	94.0
Taiwan, China	124.3	54.5	15.1	54.6	43.8	44.0
Korea	292.7	77.3	97.9	117.5	26.4	69.3
China	403.0	201.3	191.3	10.4	50.0	34.8
Japan	5,816.9	3,904.7	1,211.7	700.5	67.1	139.4
Total	6,873.3	4,352.1	1,578.0	942.9	63.3	104.8
United States	15,366.6	4,271.9	8,658.2	2,436.4	27.8	152.4

Sources: World Federation Exchange (2001); FIS; BIS.

Table 3

Bond issuance of East Asian countries

In billions of US dollars

	1997	1998	1999	2000	2001
China	10.27	14.39	19.53	25.34	20.83
Hong Kong SAR	3.52	5.03	5.71	6.09	6.33
Indonesia	0.78	0.57	1.01	0.98	0.75
Korea	23.55	23.83	30.64	37.54	38.14
Malaysia	4.04	3.60	4.15	6.39	7.25
The Philippines	2.04	1.58	2.50	2.42	2.45
Singapore	2.69	2.90	3.68	4.48	5.68
Thailand	1.74	2.28	3.68	4.08	4.27
East Asia	48.62	54.17	70.90	87.31	85.69

Source: Ismail Dalla, "Asset-backed securities market in selected East Asian countries", World Bank, 2002.

B. Factors hindering development of an Asian bond market

As mentioned above, capital movement within the East Asian region is limited. Even with substantial foreign exchange reserves, current account surpluses, a surge in exports and high personal savings, not enough of the surplus capital has been circulated within the region. Important insights into this situation can be gleaned by examining the supply of, and demand for, capital in East Asia. On the supply side, low-rated assets in the region and capital controls and regulations have restricted foreign investment in domestic assets. On the demand side, there is a lack of expertise among institutional investors and risk-averse behaviour among regional investors.

A wide credit quality gap exists between the issuers and the minimum requirement of the investors as the credit ratings of many East Asian countries are below investment grade, which on the whole discourages international investors. In addition, there are only a limited number of large, reputable firms which can issue high-rated bonds. The low credit ratings of bonds issued by East Asian governments or corporations have been one of the major factors hindering the development of the bond market in the region. The low credit ratings are mainly due to widely perceived political and commercial risks in East Asian countries. The low credit ratings of major East Asian countries make it difficult for international investors to invest without constraints. The bulk of Japan's overseas capital investment, for example, is in non-Asian bonds because the low credit rating of major East Asian countries means that Japan has few options for portfolio investment in East Asia.

East Asia's capital controls and regulations have been relaxed gradually but they remain a major obstacle impeding capital movement within the region. Capital controls and regulations create distortions in international capital flows. They often take the form of restrictions on foreign financial institutions entering the domestic financial market or a cap on foreign equity ownership in domestic financial institutions. Such restrictions have long since been removed in advanced economies such as Japan, Korea, Hong Kong and Singapore, but many East Asian countries still control capital flows in many ways. Some notable features of capital controls are: (i) more restrictions on capital outflows than on capital inflows and (ii) relatively stronger control on capital inflows for bond investment than on capital inflows for equity investment.

On the demand side, institutional investors in East Asia are largely underdeveloped. Most of the pension funds, mutual funds and insurance companies are small and incapable of expanding their cross-border portfolios. Institutional investors are in their early stage of development in most East Asian countries. Four factors can account for the weak institutional investor base. First, bank-dominated financial intermediation in most of East Asia hinders the development of institutional investors, with the extensive branch networks of banks tapping high domestic savings. Second, corporate governance of family-controlled companies and the emphasis on the expansion of capital through business profits or bank loans tend to discourage the growth of institutional investors. Third, the absence of a long-term capital market and lack of long-term investment products complicate portfolio management by institutional investors. Fourth, the development of the institutional investor base is impeded by government legislation or decrees, such as those restricting pension funds or imposing rigid investment criteria on insurance companies.

Risk-averse behaviour by regional investors is another factor limiting capital movement within East Asia, and was reinforced by the financial crisis. Both public and private investors from Japan, China, Korea, Hong Kong and Singapore who are able to invest abroad have been reluctant to take risks as they consider East Asian investment to be riskier since the financial crisis. Also, East Asia shows a tendency to export risky assets and import safe assets. This is because the increase in accumulated foreign exchange reserves is creating a situation that structurally forces East Asian countries to manage their assets safely. East Asia's relatively weaker capability to evaluate and manage risks also discourages East Asian investors from taking risks.

4. Rationale for creating a new regional credit guarantee mechanism

A. Credit guarantees and securitisation as a solution to the credit quality gap

Securitisation coupled with credit guarantees has been suggested by many experts and economists as one means of narrowing the credit quality gap between the low credit ratings of issuers and the minimum credit requirements of investors. A credit guarantee mechanism is an agency or institution that guarantees bonds by holding a certain sum of money at all times to immediately pay investors in the event that an issuer defaults. Two types of guarantees provided by existing guarantee institutions are commercial and political risk guarantees. Commercial guarantees protect against defaults caused by a company's bankruptcy. Political guarantees protect against defaults due to currency inconvertibility, expropriation, war and social disorder or breach of contract by the government.

A credit guarantor is able to close the gap between the low credit ratings of issuers and the minimum requirement of investors by enhancing issuers' credit. The guarantor is in a way "renting" its high credit rating to the issuer to match the minimum requirement of the investors. Hence, securitisation supported by credit guarantees enables borrowers to issue asset-backed securities at much higher credit ratings than they could on their own. Combined with credit guarantees, these securities could attain a credit quality acceptable to asset managers by qualifying for investment grade ratings from the international rating agencies.

Most bond-issuing Asian firms have poor credit ratings. There are a limited number of large, reputable firms, but they have been migrating to the global bond markets. Some small and medium-sized enterprises (SMEs) have good credit records but are not capable of raising capital from either the local or regional bond markets. Moreover, many corporations in developing countries are rated low because their sovereign ratings are low. These corporations also have low credit ratings due to the poor quality of institutions and information disclosure. The supply of top-grade Asian bonds is very limited, pointing to the need to devise a practical and viable mechanism to increase the supply of investment grade Asian bonds denominated in local currencies.

B. Example using credit guarantees and securitisation

The figure below illustrates one example of how credit guarantees and securitisation can be used to facilitate the financing of developing countries' SMEs by mitigating the credit quality gap problem. This example entails implementing a two-tier securitisation process; one in borrowing countries and the other in capital-abundant countries. A two-tier process is necessary because of differences in the financial and legal systems among the participating countries in the region.

As a first step, government financial institutions or agencies in capital-importing countries would securitise loans or bonds issued by SMEs in local currencies. Then, in a capital-abundant country, a special purpose company (SPC) could be established to securitise the underlying assets, which are composed of the senior tranches from the capital-importing countries. The junior tranches, on the other hand, are assumed by local institutions in the capital-importing countries, which select the firms eligible for securitisation. Some senior tranches may be sold to local investors, but the remainder would be transferred to an SPC in the capital-abundant countries. Additionally, senior tranches could be backed by credit guarantees either from local credit guarantee agencies or government institutions in the capital-abundant countries. In this process, the newly created credit guarantee institution would provide guarantees for senior tranches.

It should be noted that cooperation among participating institutions is critical for the smooth functioning of this system. The coupon rates of both underlying assets and asset-backed securities, fees for underwriting and credit guarantee and the portion of senior tranches

compared to respective junior tranches are notable examples of many areas in which cooperation among participating institutions would be critical. Furthermore, because this proposal allows for the adoption of securitisation with proper risk-sharing among financial institutions, investors and guarantee companies, moral hazard is expected to be minimal.

Figure 2

SME financing using credit guarantees and securitisation

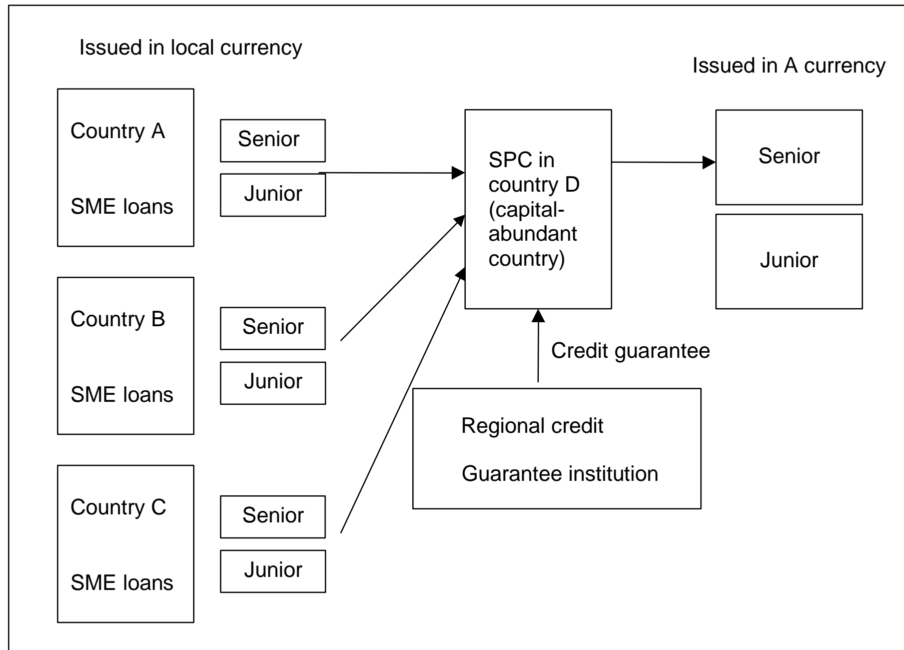
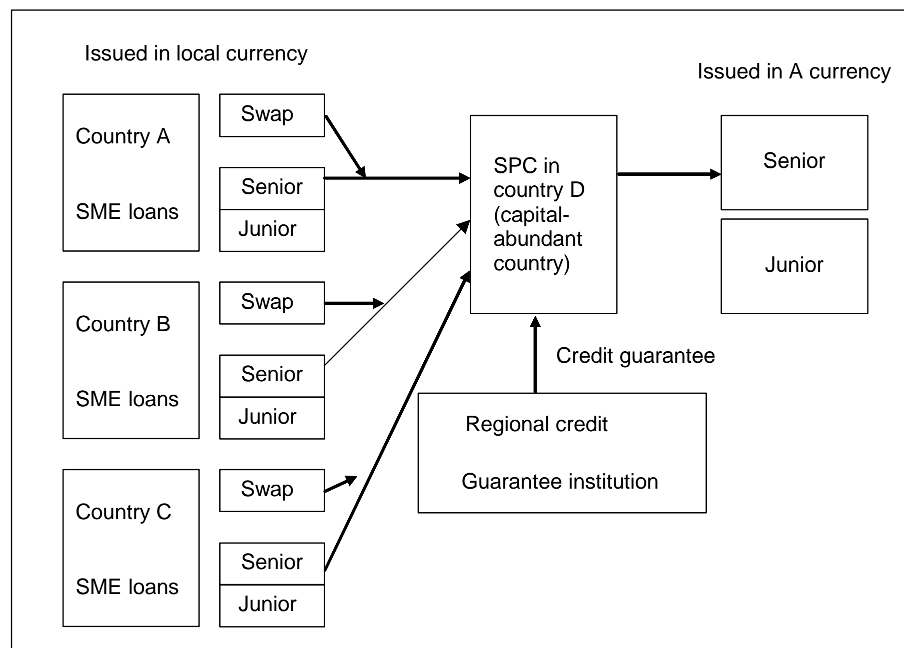


Figure 3

SME financing with currency swaps



A slight modification of the first proposal is illustrated by Figure 3. This modified proposal is nearly the same as Figure 2, the only difference being that it calls for providing currency swaps to investors who are not willing to assume currency risk. A government agency (GA) or other proper institution in country A would provide the SPC with currency swaps and then hedge the currency risk using back-to-back swaps with swap dealers. This would be done through the currency swap market, if one exists in the developing country, or with the help of the developing country's central bank if there is no swap market.

C. Limits of existing guarantee institutions in meeting the guarantee needs in Asia

In the near future, the greatest demand for guarantees in Asia is expected to be for local currency-denominated asset-backed securities and infrastructure revenue bonds guarantees. Guarantees for non-traditional ABSs such as SMEs, CDOs and non-performing loans (NPLs), and for mid-market, near investment-grade or unrated issues are in especially high demand. To meet these demands, currency risk or transfer and convertibility risk, regulatory and institutional infrastructures and technical assistance need to be taken care of. In this section, the existing guarantee institutions are examined to determine if they meet the guarantee needs in Asia.

1. Multilateral financial institutions

There are eight multilateral institutions that offer guarantee services to private and/or public projects: the Multilateral Investment Guarantee Agency (MIGA), the International Finance Corporation (IFC), the Asian Development Bank (ADB), the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the Inter-American Development Bank (IADB), the European Bank for Reconstruction and Development (EBRD) and the African Development Bank (AFDB).

The guarantee operations of the existing multilateral institutions are limited. Most of the institutions' capital has been used for other types of assets; offering guarantees is not their main line of business. For instance, the IBRD's guarantee business accounts for only 1.4% (US$ 1.58 billion) of its roughly US$ 116 billion in development-related assets, and most of its resources are used for loans. Among all the existing multilateral institutions, MIGA is the only one that performs guarantee operations as its main line of business. MIGA, however, only covers political, not commercial, risks. Hence, it can be concluded that the existing multilateral institutions do not meet Asia's demand for specialised guarantee services in an efficient and focused manner.

2. Private guarantee companies

Like the multilateral agencies, the guarantee operations of private institutions are also limited in size and business scope. The US monoline insurance companies tend to overprice Asian risk: they do not split the savings in the issuer's cost resulting from credit enhancement with the Asian issuer. According to the Hong Kong Monetary Authority, studies of six structured deals done by US monolines in Hong Kong in the period 1994-99 show that there were no clear cost advantages, and most of the savings resulting from credit enhancement of the issuer were taken by the monolines. According to the insurers, this is because the small and underdeveloped Asian bond markets prevent US monolines from enjoying economies of scale. The reason for this is that the credit rating agencies consider the Asian financial guarantee business to entail greater political and commercial risk than the US financial guarantee business. Also, the deal closures were delayed because all guarantee decisions were made at the US headquarters. The issuers, especially first-time issuers, who used the US monolines' guarantee services did not use their services to save money but to enhance marketability and reach a wider pool of investors. Due to the lack of funding efficiency, Asian

issuers tend to rely more on bank loans and senior/subordinate structure than guaranteed bonds.

Additionally, the US monolines cannot satisfy the demand for guarantee services in Asia because they do not cover Asia's needs for local currency-denominated guarantees and for near-investment bonds and non-traditional ABSs such as SMEs, CDOs and NPLs. Monolines have conservative underwriting guidelines and do not issue guarantees for these riskier assets because they need to maintain their AAA credit ratings.

3. Existing Asian guarantee institutions

In Asia, there is a credit quality gap in intraregional intermediation in long-term credit, and the existing private and multilateral guarantors do not fill this gap. Many of the existing guarantors lack focus on Asian countries, whose long-term borrowing and lending needs remain unmet. The unmet needs of long-term lending became even greater due to failure to invest during the crisis years. Many infrastructure projects were shelved for lack of long-term financing, and thus infrastructure remains woefully inadequate. However, the potential demand for well structured, long-term bonds of acceptable risk is rapidly growing, as witnessed by the ever growing trade surpluses and international reserves of the region.

Most Asian countries, except for Japan, Korea and China, do not have local credit guarantee institutions. Even the existing ones, however, cannot meet the demand for credit enhancement and guarantees in the Asian bond markets, mostly because they have no or only sub-investment ratings themselves.

4. The experience of ASIA Ltd

A regional multilateral guarantee agency called Asian Securitization and Infrastructure Assurance Pte Ltd (ASIA Ltd) was established in 1995 in an attempt to overcome the Asian bond markets' unmet demands for credit enhancement and guarantees. It was the first regional credit guarantee agency established in Asia (located in Singapore) with more than a commercial objective - to facilitate the development of fixed income markets in Asia. Its shareholders included CapMAC Asia Ltd, Apmac Investment Pte Ltd, the Asian Development Bank (ADB), Employees Provident Fund of Malaysia, American International Assurance Co Ltd, Kookmin Bank, Netherlands Development Finance Co and Deutsche Investitions- und Entwicklungsgesellschaft mbH (DEG). ASIA Ltd had total paid-in capital of US$ 150 million at the time of establishment. Initially, ASIA Ltd also intended to set up local agencies in the second phase of its development to cater to local currency-denominated bonds, while the Singapore main office would handle non-local currency- (notably US dollar-) denominated bonds. However, the Asian financial crisis led to the downgrade of its claims-paying ability rating in 1998, and currently it is in a run-off mode.

ASIA Ltd applied zero-loss underwriting standards to its operations with a concentration of business in the credit rating range of BBB+ to BBB–. Rating requirements for ASIA Ltd were such that a maximum of 25% of its guarantee portfolio in non-investment grade bonds would still allow it to keep its A rating. After the onset of the financial crisis and particularly the downgrades of Indonesian and Korean credit risks, the claims-paying ability of ASIA Ltd was downgraded by Standard & Poor's from A to BB in January 1998. At this time, the agency had to stop writing new business. As of end-1999, the company's US$ 934 million credit insurance portfolio consisted mostly of sovereign, asset-backed, infrastructure and financial institution debt obligations throughout Asia. In terms of geographical distribution, as of end-1999, 24% of ASIA Ltd's guarantees and assumed reinsurance were outstanding to South Korea, 11.4% to Malaysia, 10.3% to Indonesia, 9.1% to Hong Kong and 20.9% to OECD countries (except South Korea). As of the end-March 2000, ASIA Ltd still had outstanding guarantees totalling US$ 924 million.

Following the downgrade of its claims-paying ability, ASIA Ltd sought to raise additional capital to restore its rating to A. The shareholders were, however, unable to agree on the terms of a recapitalisation plan due to dissent over broadening the geographical coverage of ASIA Ltd. In April 1999, ASIA Ltd contracted out its responsibility for day-to-day operations, including surveillance of its credit insurance portfolios, to an affiliate of MBIA, and it is now effectively under the management of MBIA Singapore Pte Ltd. Inclusive of the Reinsurance Treaty with ERC Frankona Ruckversicherungs Aktiengesellschaft of US$ 100 million, ASIA Ltd now has total claims-paying resources of approximately US$ 250 million.

In retrospect, the company's business model had many structural problems which made it vulnerable to the shocks. First of all, at the time when ASIA Ltd was building its book of business in 1996-97, its risk management practices appeared to be prudent based on the assumption that country risk among Asian countries was not highly correlated. However, the reality turned out to be completely different; ie the crisis swept through most of the East Asian countries at varying intensities. Second, the institution was prohibited from providing any direct guarantees to non-Asian economies and certain developed Asia-Pacific economies (Japan and Australia). The geographical restriction not only significantly reduced the potential business available to the company but also exacerbated the correlation risk and concentration problem among Asian countries. Third, in relation to the second problem, the business deal flow of the company was too small and limited since its business area was limited to developing countries. It could not follow the detailed local market situations of each developing country. Therefore, the company was forced to engage in overly risky business. There should have been some close links or mechanisms for collaboration with local financial institutions and guarantee agencies. Fourth, the initial capital size was too small to absorb the big risks inherent in the provision of guarantees to developing Asian countries. What made the situation worse was that additional callable capital was not injected from participating shareholders during stress periods, contrary to the original agreement. Fifth, the initial credit rating, single A, was too low to do business.

With high demand for credit enhancement and guarantees in the Asian bond markets, a new and more fitting multilateral guarantee institution that can meet the Asian bond markets' current needs should be built. In light of the experiences of ASIA Ltd, the required level of capital should be much higher, and the return on capital should be lowered. The development of a regional credit guarantee institution would involve a stronger commitment to capital injection from participating countries during stress periods. Thus, the credit guarantee institution should initially be a "public" but "commercially viable" entity. Moral hazard problems should be mitigated by instituting an appropriate ownership structure. Exposure to each economy should be limited through structuring and reinsurance. Cross-border risks should also be limited through an emphasis on local currency business.

5. Considerations for the creation of a new guarantee institution

A. Attributes of a regional guarantee institution

A new regional guarantee institution clearly needs to be established to satisfy the unmet demands for Asian guarantee services. The objectives of the institution would include: (i) development of regional capital markets for stable access to long-term funds to facilitate private sector and infrastructure development, (ii) promotion of transparent and cash flow-based lending by facilitating securitisation and bonds issues, (iii) catalysing investment by providing comfort to investors through guarantees for new products and issuers, (iv) providing cost savings to issuers in the region by sharing the reduction in spreads resulting from credit enhancement, (v) improving the liquidity of bonds through diversification of investment products and (vi) creating an environment in the capital markets conducive to accelerated development of economies and establishment of bond markets.

To ensure the success of the new regional guarantee institution, contributions and cooperation among the ASEAN+3 member countries, proper pricing and business scope, exemption from regulation, risk diversity and sound underwriting policies are critical. The institution should also have a sufficiently high credit rating to foster the development of Asian bond markets. Acceptance by bond investors and sufficient initial paid-in capital and callable capital are other factors to be considered for successful operation of the institution.

B. Possible structure of a regional guarantee institution

1. Business strategy

The primary guiding principles of the business strategy of the new regional guarantee institution would be independence and prudence. The institution should not be influenced by the main issuers or investors, or the country where it is located. The institution should be an entity staffed by first-rate professionals who are able to analyse complex deal structures. Finally, the institution should be prudent in risk-taking in order to remain sound and to attain success.

The institution would provide credit risk guarantees, political risk guarantees and advisory and structuring services. Under the credit risk guarantees, the institution would provide local and convertible currency (US dollar, euro and yen) guarantees, partial credit guarantees, political risk guarantees and guarantees of loans to bond issuers. The products would be offered in three different phases. During the first phase, the institution would provide credit enhancement or guarantees primarily for ABSs and infrastructure revenue bonds, and advisory and structuring services. During the second phase, the institution would add products for SME CDOs in close cooperation with local credit guarantee agencies. Finally, during the third phase, the institution would provide a full-fledged range of products including guarantees for municipal bonds. The institution would not provide guarantees to sovereign bonds without conditionality. Because of these strict conditions, the institution's guarantee business for sovereign bonds might prove to be very limited.

Underwriting would be done according to the reinsurance model based on cooperation with local guarantee institutions. Instead of taking on the zero-loss policy, the institution would take on the risks with sufficient provisions. Because the institution would enter business lines perceived as risky, such as local currency-denominated bond guarantees, the reinsurance model would mitigate the risks. The role of the local institutions would be strengthened if the institution adopted the reinsurance business model. In other words, the first loss is assumed by the local guarantee institutions to the extent that they are able to assume it. The institution itself might take the burden of the second loss, thus alleviating both the credit risk and the currency risk.

The target market is ASEAN+3 countries. The institution would operate in all of these member countries within two years of its inception. However, there would be country, obligor, institutional and regional concentration limits based on the Fitch's Emerging Market CDO Model. The country concentration limits would be based on the country's ratings: higher-rated countries have higher concentration limits as their macroeconomic risks are expected to be lower than the others. The industry concentration limits would vary depending on whether the industry is global or local. Each obligor should represent no greater than a certain portion of the total asset pool.

To maximise the benefits of the institution to the Asian region, it is hoped that the new institution will be rated AAA (both local and foreign currency rating) by one or more international rating agencies such as Moody's Investors Service, Standard & Poor's or Fitch Ratings. A AAA credit rating extends the scope of benefit even to countries like Japan that have credit ratings above AA. A AAA rating also increases the spread between rates with and without guarantee, benefiting both the issuers and the institution. The challenge in

obtaining a AAA rating will be attracting enough capital. Nonetheless, the institution should strive to get a AAA rating.

Adequate pricing would ensure a stable and sufficient return on capital for the institution. Moreover, the spread may be split between the institution and the issuers so that there will be adequate demand for the guarantee business.

The institution's marketing strategy would be to produce continuous deal flows that meet its strict underwriting standards through cooperation with intermediaries such as investment banks and commercial banks, and other institutions including the rating agencies, reinsurance companies and governmental and other regulatory authorities. In addition, to build firm investor acceptance for securities guaranteed by the institution, local, regional and international cooperation between regional and local credit guarantee facilities would be essential and actively pursued.

The main objective of the investment portfolio would be to serve as a source of internal liquidity for the institution. The preservation of its capital would be imperative, and the rate of return should be reasonable. The annualised total rate of return of the portfolio would be compared with inflation as measured by the consumer price index with respect to the appropriate currencies, with the expectation of earning a positive real rate of return. Investments would include primarily fixed income securities issued by governments of major industrial countries such as government bonds of the United States and European countries. This will diversify the portfolio risk of the institution.

With the aim of exercising due financial prudence and maintaining a sound capital structure, the institution would adopt standard financial strategies and policies. At all times, the institution would maintain adequate liquid resources. The guarantee leverage shall be up to 20 times its capital, surplus and reserves. This limit is considerably lower than those of monoline bond insurers (with a limit of about 100 times), or ASIA Ltd (with a limit of up to 40 times), which shows that the sponsors/shareholders of the institution would operate in a conservative manner.

2. Type of institutional form

The institution may be either public or private. There are five possible institutional options depending on the legal status, organisational form and shareholders. The first option is a multilateral institution, which would be established through a treaty prepared and signed by participating shareholder countries. The second option is a private corporation with sovereign shareholders including governments or government-related institutions. The third option is also a private corporation, but the shareholders could include private as well as public shareholders. One example of this model is ASIA Ltd. The fourth option is a purely private corporation whose shareholders are private investors. The final option is an association of existing local guarantee institutions and companies in the region such as the existing Asian Credit Supplementation Institution Confederation (ACSIC).

A multilateral institution would have many advantages over a private corporation. First, it would be relatively easy to enlist sovereign shareholders through the ASEAN+3 grouping, even with a low expected return on capital in the initial period. The political and commercial risks in Asia are considered very high compared to advanced countries and even developing countries in other regions, and it would also be very difficult to maintain zero-loss underwriting guidance in Asia. It would, therefore, be very difficult to find interested private investors since the return on capital would naturally be lower than that of private companies.

Second, the injection of callable capital could be done quickly and with stronger commitment from shareholders during periods of stress. Third, the tax-exempt status of a multilateral institution could be a factor in the new institution's price competitiveness. In addition, the provision of guarantees would be more efficient and competitive if the new multilateral institution utilises a trust fund and closely collaborates with local guarantee institutions.

However, it should also be noted that a multilateral institution would have shortcomings. The most serious is the long period of time required to establish this type of institution considering the long and complex process of coordinating and reconciling the wide-ranging economic, administrative and political interests of participating countries. A multilateral institution might also by its very nature be more bureaucratic than a private company.

A private corporation with sovereign shareholders including governments or government-related institutions might share many advantages with multilateral institutions since the shareholders would be public. However, it might have a shortcoming in that callable capital might not be injected during periods of stress. Using an existing local guarantee institution would be the least feasible option since most are undercapitalised, might lack the capability and expertise needed to guarantee bonds and have no structure, rating and value as a bond insurer to investors.

As discussed, each option has its own advantages and problems. However, considering not only the nature and prospect of the new guarantee institution, but the economic and financial environments in the region, a multilateral institution is believed to be the best option. To ensure intergovernmental support for the new institution by, and regional financial cooperation among, the ASEAN+3 countries, a multilateral institution is obviously a better model than the others.

A multilateral institution would also be easier to establish than a private company in light of the attractiveness of the new institution to prospective investors. The decision on whether to establish a private or multilateral agency would depend on the attractiveness of its return on capital to private investors. The return on capital measures how effectively the company uses capital in generating profit, and is calculated by subtracting total costs from total revenues. The credit rating agencies consider the Asian financial guarantee business as involving greater political and commercial risks than the US financial guarantee business. As a result, the capital charge for the financial guarantee business is two to three times higher, which reduces the operating leverage by half or two thirds (from 100 to around 33). The much lower rate of return on capital in the Asian financial guarantee business means that it does not attract private equity. In conclusion, the tremendous social benefits and demands in the Asian market suggest that the financial guarantee business should be multilateral rather than private.

A multilateral institution would also be optimal considering that the mandate of the new institution would be partly developmental in that it would facilitate development of bond markets and grant small and medium-sized enterprises wider access to financial markets. Finally, and most importantly, from a practical perspective, the new regional guarantee institution should take the multilateral institution form since a long time might pass before the new institution can generate steady cash flows, and its return on investment might initially be lower than private investors would require.

6. Conclusion

This paper reviews recent efforts by Asian countries to develop the regional bond markets, focusing on the creation of a credit guarantee institution. Establishment of a regional credit guarantee institution is proposed as a viable solution to deal with the credit quality gap between the low credit ratings of issuers and the minimum credit requirements of investors. Combined with securitisation, credit guarantees are urged as an effective means to solve the problem, among the most serious difficulties in the development of the bond markets in Asia.

The existing guarantee institutions, including multilateral institutions and private guarantee companies, are not in a position to satisfy the already high demand for guarantees in Asia, which is expected to grow over time. It is, therefore, believed that a new and more fitting guarantee institution that can meet the Asian bond markets' current needs should be

established. Towards that end, important lessons can be gleaned from the experience of ASIA Ltd. Foremost among these, the new institution should be much more heavily capitalised, and the expected return on capital should be lower. The development of a regional credit guarantee institution would also entail a stronger commitment to capital injection from participating countries during stress periods. Thus, the institution should initially be a public but commercially viable entity. Moral hazard should be mitigated by instituting an appropriate ownership structure, and its exposure to any particular country should be limited through structuring and reinsurance. Cross-border risks should be minimised through an emphasis on local currency business. Although we presented some preliminary ideas on the institutional structure and business operations of the new regional credit guarantee institution, we believe further, in-depth study is necessary. Among other issues, we should seriously consider how to prevent moral hazard and make the new institution commercially viable in the long term. For that purpose, close discussion and cooperation among Asian countries is indispensable.

The new guarantee institution is expected to greatly contribute to the development of the Asian bond markets. Other necessary components of the infrastructure and systems should be introduced and developed to support bond market development, including but not limited to credit rating systems, clearing and settlement systems, a centralised depository system and liberalising exchange and capital controls.

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