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Opening markets through a regional bond fund: lessons from ABF2[1]

In creating a regional bond fund, central banks in East Asia and the Pacific worked to reduce impediments in eight local markets. Moreover, they built into the fund's structure an incentive mechanism for reducing impediments further.

JEL classification: E440, G150, G160, G180, O160.

Since the Asian crisis of 1997, local currency bond markets in the region have expanded rapidly; even so, they are still seen as not achieving their potential to intermediate between domestic savers and borrowers. Capital flows since the crisis show that Asians have been investing largely in low-yielding foreign assets and foreigners in higher-yielding assets in the region. While some of these flows are consistent with portfolio diversification, the broad pattern suggests that a sizeable part of financial intermediation is being carried out abroad. To bring such intermediation home, Asian policymakers perceive a need for deeper and more liquid local bond markets.

This perception has spawned a number of regional cooperative efforts at market reform. In this special feature, we assess one such undertaking – an unusual one in that it involved the creation of an actual bond fund, with financial contributions from the parties concerned. The regional group involved is the Executives' Meeting of East Asia and Pacific (EMEAP) central banks.[2] The fund they have created is called the Asian Bond Fund 2 (ABF2). We argue that because the group set up an actual fund, its reform efforts enjoyed significant advantages from "learning by doing".

In what follows, we first provide an overview of the recent development of local currency bond markets in East Asia and describe the main impediments in those markets. We then explain the structure and features of ABF2 in the

[1] We thank Claudio Borio, Norman Chan, Guy Debelle, Már Gudmundsson, Robert McCauley, Frank Packer, Sakkapopp Panyanukul, Ramona Santiago, Atsushi Takeuchi, Philip Wooldridge and Sunny Yung for helpful discussions. The views expressed are those of the authors and do not necessarily reflect those of the BIS.

[2] The 11 EMEAP central banks and monetary authorities are the Reserve Bank of Australia, People's Bank of China, Hong Kong Monetary Authority, Bank Indonesia, Bank of Japan, Bank of Korea, Bank Negara Malaysia, Reserve Bank of New Zealand, Bangko Sentral ng Pilipinas, Monetary Authority of Singapore and Bank of Thailand.

context of various regional initiatives for bond market development. Finally, we comment on the role of the ABF2 exercise in the reform of bond market regulation, providing examples of market impediments that have been reduced in the process of creating the fund and describing the mechanism put in place to provide incentives for reducing impediments further.

Local currency bond markets in East Asia

In the wake of the Asian crisis of 1997, there was concern at first that the lack of well developed local currency markets was forcing Asians to borrow in foreign currencies, thus making their economies more vulnerable to a speculative currency attack. Since then, however, governments in the region have accumulated so much in foreign exchange reserves that the risk of another currency crisis has ceased to be an immediate concern. Of greater interest to policymakers in the region has been the concern that their stockpiles of official reserves may be a sign of inefficient domestic intermediation, since such reserves seem to have been earning much less than what they pay when borrowing abroad.

Currency crisis no longer the issue …

McCauley (2003) documents that the broad pattern of gross capital flows since the Asian crisis has indeed been one of Asians investing in low-yielding foreign assets and foreigners investing in higher-yielding assets in the domestic markets of the region. In other words, Asian savings are being sent abroad only to return in the form of foreign investment. Financial intermediation is being carried out in the more developed financial markets of Europe and North America. In principle, the importance of local information should lead to such intermediation being done at home. If local currency bond markets in Asia functioned as intended, Asian policymakers now seem to be asking, could they not keep such intermediation at home and in the process save their economies some of the borrowing costs?

The Asian crisis did have economic consequences that themselves added impetus to the development of local currency bond markets in the region. As economies contracted, governments in the region found themselves faced with budget deficits. Huge amounts of funds were needed for large-scale bank restructuring. And this time, the governments in the region made an effort to eschew borrowing abroad, instead borrowing locally in local currencies. As a result, the total amount of domestic debt outstanding in East Asia excluding Japan has risen nearly threefold since 1998 (Graph 1).[3] Hence, to the extent that the sheer amount of debt helps in market development, the Asian crisis has contributed to the development of local currency bond markets in the region.

… although it has played a role

Other factors, however, seem to continue to hold back these local markets. While the strength of issuance has been beneficial to the primary markets, the secondary markets still suffer from a lack of liquidity. A number of market impediments, both cross-border and local, remain. Takeuchi (2004)

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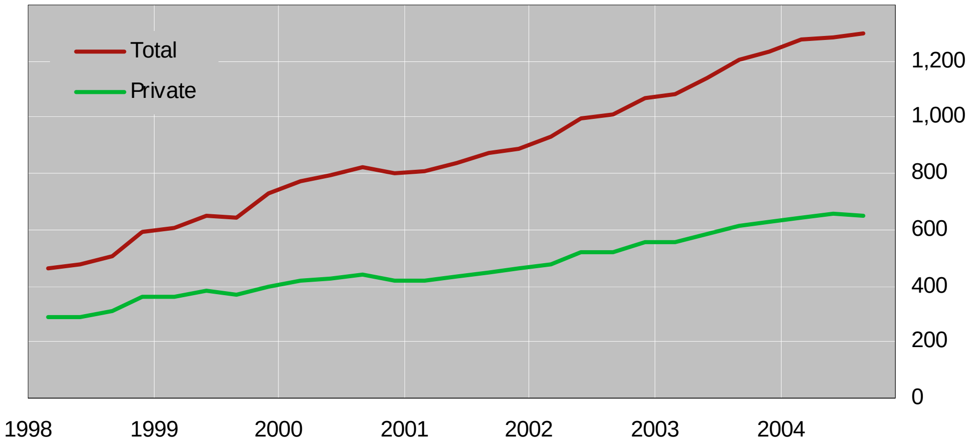
[3] For a review of bond market development since the 1997 crisis, see CGFS (1999), McCauley and Remolona (2000), Jiang and McCauley (2004), Battellino (2004) and Sheng (2005).

Domestic debt securities outstanding in East Asia[1]

In billions of US dollars



[1] Includes the bond markets of the eight EMEAP members China, Hong Kong SAR, Indonesia, Korea, Malaysia, the Philippines, Singapore and Thailand.

Source: BIS. Graph 1

provides a survey of cross-border impediments in Asia. While most of these cross-border impediments are well known in the literature on capital controls, local impediments have been relatively less well appreciated and thus received insufficient attention.

Cross-border impediments …

Capital controls typically include a ban on investments by foreigners or on repatriation of principal or income on these investments, restrictions on currency conversion and other prohibitions and regulatory hurdles for both issuers and investors. There is evidence that such controls still bind in Asia. Ma and McCauley (2004), for example, show that there is still not sufficient arbitrage to equalise onshore and offshore yields in various Asian money markets.

… as well as local ones

Local market impediments may take the forms of taxes, insufficient market development and an inadequate clearing and settlement infrastructure. Withholding taxes and taxes on financial transactions remain a major cost to non-resident investors in some of the local markets. Within EMEAP, some jurisdictions exempt only non-resident investors, and some only for certain instruments. Insufficient market development, such as the lack of a broad and diversified bond investor base, issuers and products, is not conducive to liquidity. For deep and liquid markets in Asia, Jiang and McCauley (2004) identify as essential such factors as market size, the diversity of the investor base and the availability of hedging instruments. Inadequate custody, clearing and settlement facilities also hamper bond market development. In most Asian bond markets, it is still rather cumbersome and sometimes impossible to clear and settle cross-border bond transactions.

Regional cooperation and the ABF2 project

East Asia has seen several initiatives in regional cooperation to develop domestic bond markets. The focus of the various regional initiatives has been to open up domestic markets to foreign portfolio investment by removing both local and cross-border impediments. Among these initiatives, only the ABF2 effort involves actually setting up funds to invest in the local currency markets. We argue in this section that this unusual approach leads regulators to encounter impediments in such an operational manner as to make it an effective mechanism for regulatory reform. In principle, private investors could have also lobbied for reforms as they set up investment funds. However, market reform is a public good in the sense that the benefits are enjoyed by many investors. Individually, investors would be unwilling to bear the costs of lobbying fully for such reforms, because they would not be able to keep the benefits to themselves.

Initiatives in Asian regional cooperation

Three regional organisations …

At least three major government-sponsored regional organisations in Asia are pursuing initiatives to promote financial development in the region (Battellino (2004)). Under the banner of the Asia-Pacific Economic Cooperation (APEC) forum,[4] one initiative is focusing on the development of securitisation and credit guarantees. Within the Association of South East Asian Nations Plus Three (ASEAN+3) framework,[5] six working groups have been set up to address a broad range of issues related to local bond markets in Asia. The third organisation consists of the EMEAP central banks, which have been behind the setting-up of the Asian bond funds (ABFs).

… complementary initiatives …

The initiatives of these three regional organisations tend to complement each other. For example, under ASEAN+3, the Asian Bond Market Initiative has helped secure approval from three countries to allow multilateral development institutions to issue bonds in their local currencies. The Asian Development Bank (ADB), International Finance Corporation (IFC) and World Bank have already taken advantage of this by each issuing bonds denominated in Malaysian ringgit.[6] The ADB has also issued in Thai baht and plans to issue in Philippine pesos and Chinese renminbi. Hence, these actions are adding to the supply of paper in the local bond markets while the ABF2 exercise is adding to the demand for this paper.

… and two bond funds

The ABF exercises are the first initiatives in which a regional organisation has contributed financial resources to setting up actual bond funds in Asia. In June 2003, the EMEAP central banks launched the first fund, the Asian Bond Fund 1 (ABF1), pooling $1 billion in international reserves from the 11 central banks and investing in US dollar-denominated bonds issued by sovereigns and

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4 APEC has 21 member economies: Australia, Brunei Darussalam, Canada, Chile, China, Hong Kong SAR, Indonesia, Japan, Korea, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, the Philippines, Russia, Singapore, Taiwan (China), Thailand, the United States and Vietnam.

5 The members of ASEAN are Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam. The “+3” are China, Japan and Korea.

6 There have been three issues of supranational local currency bonds in Malaysia since late 2004: MYR 400 million by the ADB, MYR 500 million by the IFC and MYR 760 million by the World Bank. The ADB issue in Thailand in 2005 amounted to THB 4 billion.

quasi-sovereign borrowers in eight of the EMEAP economies.[7] It was the first regional pooling of international reserves in Asia. The EMEAP central banks have now launched the second fund, the Asian Bond Fund 2 (ABF2), which will invest $2 billion of EMEAP central bank reserves in local currency denominated sovereign and quasi-sovereign issues in the same eight EMEAP markets.[8]

Concerted "learning by doing": the ABF2 exercise

As mentioned, the ABF2 initiative differs from the others in that it involves the actual creation of local currency bond funds. The earlier ABF1 had limited itself to dollar-denominated issues that are mostly traded in more developed international bond markets. Nonetheless, that first fund was important because it afforded the EMEAP central banks an opportunity to work together to build trust so as to foster cooperation and to further develop financial markets in the region.

Nine individual funds ...

ABF2 is actually nine separate funds: a Pan-Asian Bond Index Fund (PAIF) and eight single-market funds (Figure 1). The PAIF is a single-index bond fund investing in sovereign and quasi-sovereign domestic currency denominated bonds issued in the eight EMEAP markets. The PAIF will be quoted in US dollars on an unhedged basis (see the box on page 87). The eight single-market funds will each invest in the respective local currency bond market. Each of the nine funds will replicate a bond index provided by a third party, the International Index Company (IIC), which has been a major participant in developing the highly successful credit default swap (CDS) indices in Europe and North America.[9] Private sector fund managers have been designated to individually manage the PAIF and the single-market funds. The mandate of each fund manager is then to try to replicate the relevant index and manage the fund passively.

... in two phases

ABF2 is proceeding in two phases. In Phase 1, investments in both the PAIF and the single-market funds are confined to the international reserves of the 11 EMEAP central banks, with a total sum of $2 billion. The EMEAP has just announced the formal launch of Phase 1 of ABF2. In Phase 2, the PAIF and the eight single-market funds are to be gradually opened up to other institutional and retail investors, both within and outside the EMEAP region. The pace and timing of the opening of these nine bond funds could vary across jurisdictions. While the PAIF is expected to become open to the public around the end of June 2005, some of the single-market funds could take somewhat longer. Undertaking the project in phases has allowed the central banks to identify market impediments in stages and deal with them on a realistic schedule.

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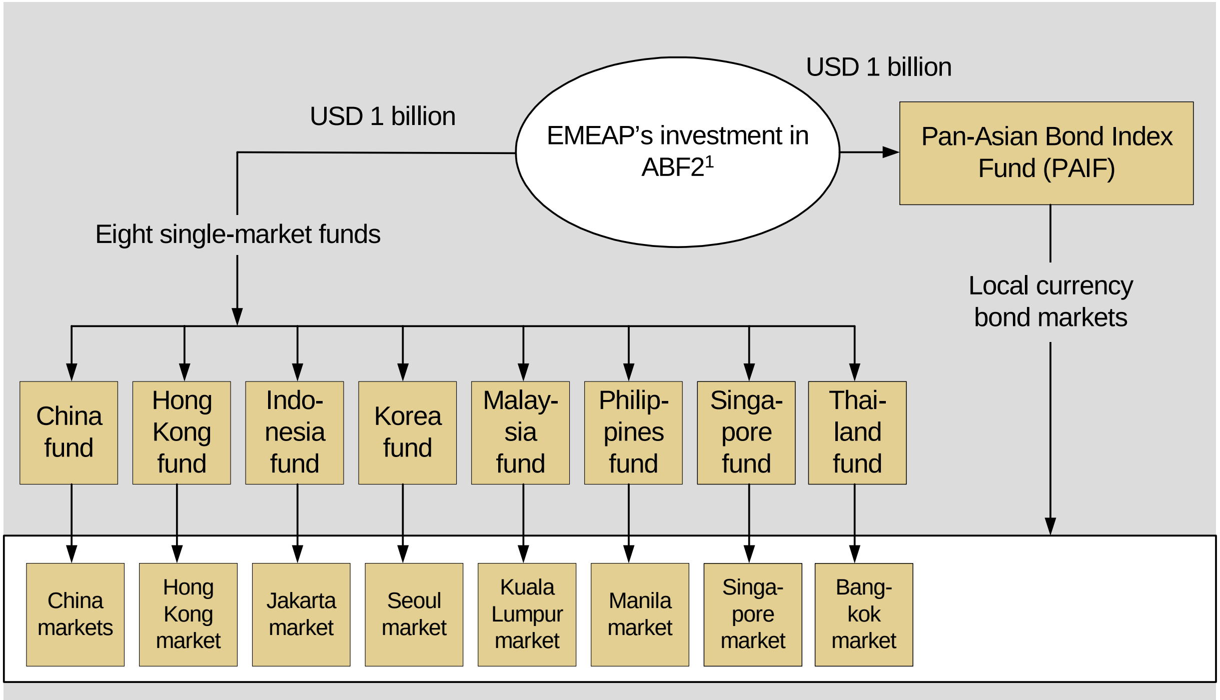
7 The three EMEAP countries in which the ABFs will not invest are Australia, Japan and New Zealand.

8 The BIS acts as manager for ABF1 and as administrator for ABF2.

9 CDS indices are now the most actively traded instruments in credit markets. The main CDS index for Europe is DJ iTraxx and for North America DJ CDX. Both are the result of a merger between two competing families, Trac-x and iBoxx. See Amato and Gyntelberg (2005).

The ABF2 structure for EMEAP investment



[1] The BIS acts as the fund administrator for the EMEAP's investment in ABF2. Figure 1

"Learning by doing"

The advantage of creating actual funds in the process of trying to reform markets is that an important element of "learning by doing" is introduced. Conversations with the key individuals involved suggest that in setting up ABF2 the EMEAP central banks encountered myriad market impediments, many of them seemingly small but each one critical to the operation of the funds. Even when these officials had been aware of the impediments before the exercise, they found some of them to be more significant than initially thought. By undertaking the initiative as a group, the EMEAP central banks improved their understanding of specific impediments in their local bond markets and ways to overcome them. Seeing that the authorities in neighbouring jurisdictions had already instituted certain market reforms would encourage the relevant authorities to "fast-track" their own initiatives. Often the central bank officials worked with their counterparts at the finance ministry or securities regulator to deal with the impediments.

Recognising that their job is far from complete, the central banks have also agreed on an incentive mechanism for further reducing market impediments. In particular, the scheme for allocating the portfolio to the various local markets will take account of market impediments: the portfolio weight in ABF2 for an individual market rises as cross-border and local market impediments there are removed.

Designing a liquid Pan-Asian Bond Index Fund

Pierre Cardon

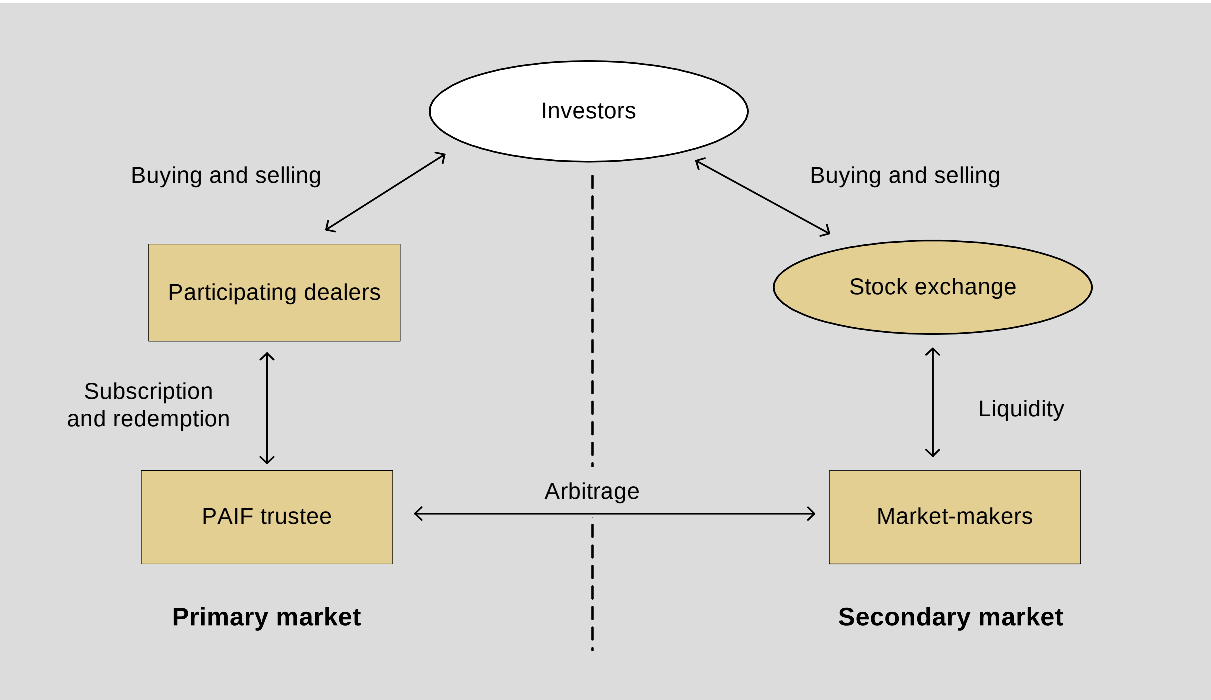
The Pan-Asian Bond Index Fund (PAIF) was designed to allow institutional and retail investors to gain access to Asia's local bond markets in a simple, transparent and cost-effective manner. The main challenge was to ensure that investors benefit from the lower costs resulting from the economies of scale obtained by passively tracking a regional index. The specific index will be the iBoxx Pan Asia Index, which is constructed to be transparent and to cover the eight local Asian bond markets. The index will be quoted in US dollars on an unhedged basis.

The fund's regional scope meant that there was no natural domicile for it in any of the EMEAP jurisdictions. Tax, legal, operational and marketing considerations suggest that a Singapore unit trust initially listed on the Hong Kong Stock Exchange would offer the best option for all investors. This unique combination of domicile and listing is still pending approval by the relevant authorities.

The fund will be open-ended as well as exchange-listed. These features allow a passively managed fund to trade at well determined prices even in relatively illiquid local bond markets. Here investors will be able to trade the PAIF in two ways. First, as shown in the figure below, investors could go to fund trustees through dealers to buy or redeem units at that day's closing net asset value, thus engaging in a transaction in the "primary market". Second, they could buy or sell units on the stock exchange, thus trading in the "secondary market". As has been the case with other funds previously launched in the region, there will be some restrictions on trading PAIF units in the primary market so as to concentrate liquidity in the secondary market. Nonetheless, the primary market will continue to provide an important means for arbitrage to ensure that secondary market prices stay in line with the fund's net asset value.

In the primary market, the PAIF will follow the "participating dealer model". This model limits daily subscriptions and redemptions only to dealers who have signed an agreement with the fund manager. To help the manager deal with cash inflows and outflows, the participating dealers may only transact a minimum size. For cash transactions, there will be a limit on the total daily volumes; and the manager will charge a dilution fee. There will, however, be no such limit and dilution fee if transactions are in exchange of a basket of bonds. These transactions are known as "in-kind" subscriptions or redemptions. Engaging in such transactions will be at the discretion of the fund

Two ways to trade the PAIF



manager. The "in-kind" facility makes the PAIF similar to an exchange-traded fund (ETF), the main difference being that in-kind dealing is more formalised with an ETF.

In the secondary market, the fund manager will appoint market-makers to provide liquidity in the trading of units on the stock exchange. The market-makers will be expected to maintain tight bid and offer quotes on the exchange and to seize arbitrage opportunities by closely monitoring the fund's net asset value and comparing it with the prices on the exchange. To help them provide liquidity, the market-makers will have priority in the primary market for trades up to a specified limit per day, and they will be able to borrow fund units from institutional investors.

The opening of the PAIF to the public may take place around the end of June 2005. Before listing the fund on the exchange, a unit trust will be set up by the EMEAP central banks with an "in-kind" transfer of the equivalent of around $1 billion in local currency bonds, which will have been purchased during Phase 1 of ABF2. The fund will then be enlarged through private placements by institutional investors, participating dealers and market-makers. It will then be listed to allow all other investors to acquire the units on the secondary market. This strategy is expected to keep costs low and avoid the volatility usually associated with a sale-driven initial public offering. From then on, listings on other EMEAP stock exchanges will be considered depending on demand from local investors and on whether local regulatory rules permit it.

Once listed, the PAIF will be the first low-cost, passively managed investment fund invested in the eight EMEAP local bond markets. It is the first foreign fund that has been granted direct access to China's interbank bond market. These features should make the PAIF especially attractive to pension fund and retirement accounts seeking opportunities for diversification and favourable long-term returns.

Impediments already reduced

For such relatively small sums, the ABF2 initiative has apparently been unusually effective in promoting the reform of local bond markets.[10] Because of the other initiatives that are also under way, it is always difficult to attribute regulatory changes to the ABF2 effort alone. Nonetheless, many of the participants feel that the effort has made a significant difference. In this section, we can provide only a few illustrative examples of reductions in impediments. A more comprehensive review will form the subject of future work.

Relaxing capital controls

The most apparent area for reform has been in capital controls. Malaysia, for example, has announced measures to liberalise its foreign exchange market so that it has now essentially restored the regime that was in place before it imposed capital controls during the Asian crisis. The Malaysian authorities have lifted all restrictions on non-resident hedging activities. Companies controlled by non-residents now enjoy full access to onshore ringgit credit facilities. Residents without domestic ringgit borrowing can freely invest abroad. Finally, the Malaysians have permitted multilateral agencies to issue local currency bonds in the domestic market and allowed these non-resident issuers to hedge exchange risks with onshore banks. China's active participation in ABF2 also bodes well for the country's willingness to simplify its still extensive regulations on cross-border portfolio investment and to lower hurdles for the still fragmented domestic bond markets regulated by multiple

[10] In this respect, the small sums involved help in that they avoid the problem of a passive investor's taking away from the market too much of the available volume of tradable instruments.

authorities. In fact, the PAIF is the first foreign institutional investor that has been given direct access to the Chinese interbank bond market.[11]

Withholding taxes and other taxes are another area of reform. Thailand has already granted non-resident investors withholding tax exemption for income from investing in baht-denominated government bonds and, in most cases, government-guaranteed bonds in the domestic market. Malaysia has also announced the exemption of non-resident investors from the withholding tax on the interest income received from investment in ringgit-denominated debt securities onshore. So far, five of the eight EMEAP member markets have offered exemption from the withholding tax to non-residents investing in local currency sovereign or quasi-sovereign issues. In the Philippines, the documentary stamp duty will be removed with the introduction of the Philippine single-market fund.

Spanning national jurisdictions

One unexpected area of reform has been the legal accommodation of national jurisdictions so that a fund domiciled in one jurisdiction may be sold in another. The PAIF, for example, is to be domiciled in Singapore to take advantage of a host of factors including bilateral tax agreements between Singapore and the other EMEAP members. However, it will be initially listed in Hong Kong in part to take advantage of the high degree of liquidity and depth in that market. This combination is the first ever in Asia, entailing a significant learning effort on the part of each regulatory authority.[12] To make this possible, the participating central banks and the regulatory authorities concerned needed to cooperate in reconciling divergent regulatory frameworks. Direct participation in local currency bond markets by the EMEAP central banks has thus helped them further identify, understand the details and gauge the importance of market impediments and appreciate more the diversity of each other's regulatory frameworks. This appreciation should in turn set the stage for further streamlining of market regulation in the region.

Incentives to further reduce impediments

The central banks involved in ABF2 have devised a mechanism to provide incentives to further reduce impediments in their own local bond markets. These incentives are built into the determination of the market weights in the portfolio of the PAIF and the single-market funds.

Determining the market weights

Weights for portfolio allocation …

The portfolio allocations of the PAIF and the EMEAP investment in the eight single-market funds will be determined in large part by market weights that take account of various factors. There are specifically four such factors: the size of

[11] Previously, qualified foreign institutional investors were allowed to directly invest in bonds and stocks traded on the smaller Shanghai Stock Exchange and Shenzhen Stock Exchange.

[12] In the future, the PAIF may be listed in another market in the region, and some of the eight single-market funds could be managed in jurisdictions other than those where they are registered and listed.

the local market, the turnover ratio in that market, the sovereign credit rating[13] and a market openness factor. Starting from an equal allocation for each local market, the allocation will be adjusted to take account of these four factors. The allocation for a given market will be adjusted upwards if the adjustment factors score better than the averages for the eight markets. In the adjustment, market size, turnover ratio and credit rating will each carry a 20% weight. The greatest part of the adjustment will be determined by the market openness factor, which will be assigned a 40% weight.

The market openness factor

IIC, the company generally responsible for the bond market indices to be replicated by the nine ABF2 funds, has constructed a "qualitative factor that gauges the relative openness of the eight markets" (IIC (2005a)). In so doing, IIC consulted with a "number of international and domestic market participants through its Asian Index Committee and Asian Oversight Committee, as a means to help ensure the credibility and market acceptance of the indices" (EMEAP (2005)). Any assessment of market openness might be expected to take account of such considerations as the absence of capital controls, the level of withholding taxes, the availability of hedging instruments, the facilities for real-time gross settlement and the ability to clear local bonds internationally. The higher the market openness factor assigned for a given market, the more the portfolio allocation is adjusted in favour of that market. The country weights, and thus the market openness factor, will be reviewed every September. As impediments are removed, the changes can be expected to be reflected in a rebalancing of the regional portfolio.

... take account of market openness

An illustration

Graph 2 shows the effects of such weight adjustments. It compares the weights based on raw market capitalisation data and the adjusted weights in the PAIF portfolio at the time of launch. The allocation after adjustments differs considerably from the weights on the basis of raw market capitalisation data. The allocations in the PAIF to China and Korea fall noticeably below their capitalisation-based weights, while the remaining six markets gain. In particular, the Hong Kong and Singapore allocations rise more than fourfold.

There are at least two ways in which the ABF2 indices will help the development of Asian local currency bond markets. First, they provide a dynamic mechanism to encourage the eight EMEAP members to continue their efforts at market liberalisation. Market openness is the single most important adjustment factor in the allocation weights, and these will be reviewed annually. Second, the transparency, replicability and credibility of these market indices will provide the kinds of benchmarks that have proven useful elsewhere for the development of markets in corporate bonds.

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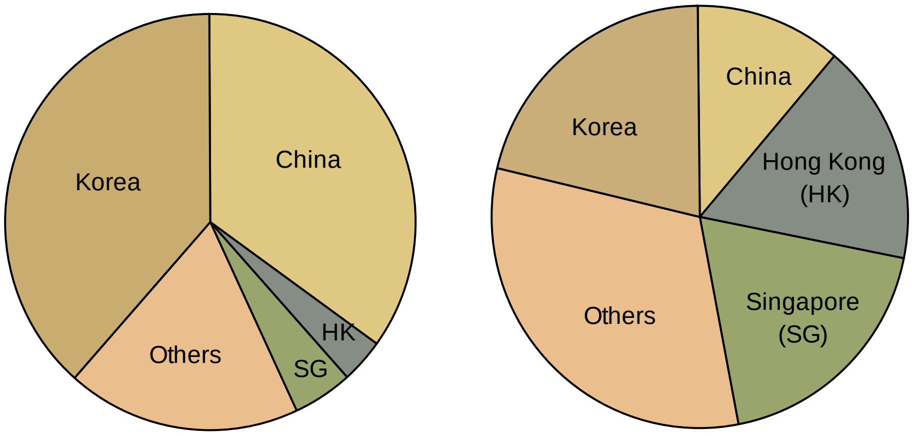
[13] Local currency long-term debt ratings of the three international rating agencies (Fitch, Moody's and Standard & Poor's) are applied.

Market weights for the Pan-Asian Bond Index Fund

A. Based on market capitalisation alone B. Based on four factors



Note: Others comprise the remaining four EMEAP markets of Indonesia, Malaysia, the Philippines and Thailand.

Sources: International Index Company (2005b, right-hand panel); BIS calculations (left-hand panel).
Graph 2

Conclusion

The ABF2 initiative is a regional cooperative effort aimed at fostering local currency bond markets in Asia. It differs from other such efforts in that it involved actually setting up bond funds. Hence, it contained an important element of "learning by doing", which enabled EMEAP to identify in detail significant market impediments that had not been well appreciated before. The process has already helped ease various market impediments, both cross-border and local. The exercise also provides incentives to further reduce market impediments.

Corporate bonds the next stage?

An important test for the exercise will be whether it sets the stage for the development of local currency markets in corporate bonds. Already, ABF2 is bringing new instruments to the local markets. As a listed open-ended index fund, the PAIF is a relatively low-cost, low-denomination and transparent fund, which would be potentially appealing to a broad spectrum of institutional and retail investors. Thus, the PAIF may help broaden both the investment menu and investor base. Five of the eight single-market funds are expected to be exchange-listed, and another market will join their ranks soon. For instance, the Hong Kong Fund and Singapore Fund may be structured as exchange-traded bond funds (ETFs). China is also expecting its own single-market fund to be an ETF in the second phase of ABF2. Both Thailand and Malaysia are actively working on their own ETF regulations. The introduction of these funds along with a set of transparent and replicable benchmark indices for Asian local currency bond markets may facilitate the development of other fixed income and derivative products, including corporate bonds and credit default swaps.

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