EMEAP

Working Group on Financial Markets

Review of the Asian Bond Fund 2 Initiative

June 2006

TABLE OF CONTENTS

EXECUTIVE SUMMARY

OBJECTIVES OF ABF2

A lesson learnt from the Asian Financial Crisis is the importance of developing a deep and liquid domestic bond market to reduce corporate sector's reliance on financing through short-term bank borrowing. At the same time, part of the high savings in Asia, which are mostly invested in assets of developed markets, have returned to the region in the form of bank lending and portfolio inflows. Such inflows tend to be volatile. Hence, to improve the efficiency of financial intermediation in Asia and to develop a source of long-term funding for Asian borrowers, the region needs to develop deep and liquid domestic bond markets.

Against this background, the Working Group on Financial Markets (WG), with the endorsement of EMEAP Governors, implemented ABF2 that invests in Asian bonds denominated in local currencies following the successful launch of ABF1 in July 2003. The key objectives of ABF2 are to provide investors a convenient and low-cost instrument to invest in Asian local currency bonds and, at the same time, to identify and remove impediments to bond market development during the process.

PURPOSE OF REVIEW

The purpose of this review is to document the key issues and challenges addressed during implementation of the ABF2 Initiative, to assess to what extent the objectives of the Initiative have been met, to draw lessons from the exercise and to identify further work that may need to be done. The review is intended to guide future plans in further developing the bond markets in the EMEAP economies.

KEY DESIGN PARAMETERS AND RATIONALE

EMEAP has decided that the ABF2 should consist of a Pan Asia Bond Index Fund (PAIF) investing in local currency-denominated sovereign and quasi-sovereign bonds of eight EMEAP bond markets, and eight Single-market Funds investing in the same bonds of the respective markets. EMEAP agreed to invest a total of US$2 billion in the ABF2, with US$1 billion allocated to the PAIF and US$1 billion distributed among the eight Single-market Funds. The PAIF targets primarily regional and international investors who want to invest in the eight Asian bond markets through a single product. The Single-market Funds are intended to provide local retail investors a convenient way to invest in a portfolio of local bonds and, at the same time, to give regional and international investors the flexibility to invest in individual Asian bond markets of their own choice.

Bond funds, which are actively managed, typically charge investors high subscription and management fees that may render bond products unattractive particularly in a low interest rate environment. In Europe and the US, however, the availability of passively managed bond funds offers investors a convenient and cost-efficient channel to invest in bonds. Against this background, a set of design parameters was drawn up for the nine component funds:

- **Low costs** – Given the relatively low yields of bond funds, the funds should have low initial investment costs as well as low recurrent expense ratio in order to attract investors. This can also help broaden investor base by encouraging retail participation;

- **Wide distribution** – To facilitate investor participation in domestic bond markets, the funds should be made available across a wide spectrum of investors, including institutional and retail investors and domestic and foreign investors;

- **Tracking Net Asset Value (NAV)** – Given the low yields of bond funds, a significant deviation of listed price of fund units from NAV would discourage retail investment and trading on the stock exchange. It was therefore decided that the design of the funds should encourage traded price to track NAV;

- **High liquidity** – Fund units should be able to be purchased and sold easily in reasonable size and with a reasonable bid-ask spread.

KEY IMPLEMENTATION ISSUES: STRATEGIES, PROBLEMS AND SOLUTIONS

Low cost features - With regards to the above key parameters, the ABF2 funds were structured as passively managed index bond funds for lower management fees and, where possible, listed on the stock exchanges for lower transaction costs and ease of access. In introducing passively-managed index bond funds, EMEAP is introducing a brand new asset class to Asia where the convention is actively-managed bond funds with significant management fees. Total expense ratios of ABF2 bond funds are kept under 30 basis points, compared to an industry average of more than 100 basis points for a typical bond fund.

In terms of product design, the bond funds were listed in the form of **bond exchange traded funds (ETFs)** where regulatory framework and market infrastructure permitted. It was intended that the in-kind creation and redemption mechanism of ETFs would help narrow the discrepancy between traded price and NAV. The structuring of bond ETFs has posed a challenge in that the underlying bonds may not be liquid enough to allow the investment bank to put together a basket of bonds replicating the benchmark index used for in-kind subscription. The challenge was overcome by allowing part of the basket to be in the form of cash.

Lack of liquidity in the trading of the bond fund units in the secondary market is another issue faced by listed bond funds, which often see wide bid-ask spreads that in turn discourage trading. **Market makers** were recruited for the listed funds to provide liquidity and fair pricing of the units in the secondary market. Monetary incentives are offered to the market makers, and the approach is successful in tightening the bid-ask spreads of the funds' unit prices on the exchange.

Construction of the benchmark indices was another challenge. Intensive discussions were held on the market allocation and construction rules including the definition of quasi-sovereign, that have to be as transparent and as rule-based as possible, so that the indices can serve as an objective indicator of the performance of the markets. As to the selection of index providers, the International Index Company (IIC), an independent index provider, was chosen because of its multiple-contributor pricing model, which compiled indices with data from more than one sources.

Low tracking difference – While the criteria for admission to the indices are carefully defined to include only liquid bonds, some long-dated and quasi-sovereign issues in the index universe are not as liquid as expected and the fund managers have difficulty in sourcing them in the market. To address this problem, the fund managers have to use non-constituent bonds issued by the same issuers in the universe as proxies in constructing the ABF2 portfolios. On the whole, the performance of the funds has been able to track that of the benchmark indices.

EMEAP adopted **a two-phase strategy** to implement the ABF2 project. In Phase 1, investment in the ABF2 funds was confined to EMEAP only. In Phase 2, the funds were offered to the public, subject to the approval by relevant regulators. EMEAP selected the master custodian and nine fund managers of the ABF2 funds in December 2004 and completed the Phase 1 funding in April 2005.

Private sector involvement was an important element of this initiative. EMEAP has been working closely with the private sector in the design, execution and offering of the ABF2 funds. We have also ensured that the selection of financial advisors, fund managers and master custodian for the ABF2 funds were done in an objective, equitable and competitive manner consistent with high governance standards. The selection of places of domicile and listing was done based on objective criteria with reference to tax regime and regulatory framework.

Governance arrangement – EMEAP noted that the checks and balances between the fund managers and trustees under existing practices could be strengthened further to safeguard the interests of unit-holders. To strengthen the governance of the ABF2 funds, EMEAP suggested that, where possible, an independent Supervisory Committee (SC) be set up to oversee the fund manager and trustee and to give advice on strategic issues of each fund. EMEAP further recommended that the SC should be granted power by the trust deed to remove incompetent manager and trustee.

Eligibility as foreign reserves – EMEAP had worked closely with the International Monetary Fund (IMF) in an unprecedented exercise to qualify a central bank's holdings in bond funds as foreign reserves, based on the key criteria of residence, liquidity and currency convertibility. To facilitate the qualification, EMEAP's investments in ABF2 are held through a Bank for International Settlements (BIS) investment vehicle, the US dollar-denominated BIS Investment Pool (BISIP). As administrator, BIS monitors the performance of the nine underlying funds, compiles monthly reports, and rebalances the allocation of funds to the 9 funds.

PRODUCT PERFORMANCE: INDICATORS AND PERFORMANCE

Six ABF2 funds were successfully offered to the public, raising a total of about US$400 million (up to end-April 2006) from non-EMEAP investors. The PAIF was launched as a listed open-ended fund, while five Single-market Funds were either listed as bond ETFs or launched in the form of unlisted open-ended funds. The remaining three Single-market Funds are scheduled for public offering in 2006.

While it is still early days, our initial assessment is that ABF2 has paved the way for broader investor participation in the Asian bond markets. The asset size of the listed Single-market Funds recorded growth of between 24% and 50% (up to end-April 2006), despite rising interest rates in the US and uncertain interest rate outlook. The 19% growth of PAIF is satisfactory and compares favourably with that of other bond funds in the region. Orders creation for PAIF has picked up since March 2006 as the asset class is gradually gaining acceptance, particularly among Japanese institutional investors. Appeal to retail investors of both PAIF and Single-market Funds, as reflected in the relatively low turnover of the listed bond funds on the stock exchange, is indicative of the "buy-and-hold" mentality of Asian investors.

MARKET DEVELOPMENT: CATALYST FOR REMOVAL OF IMPEDIMENTS AND MARKET REFORM

Apart from providing a low-cost and convenient way to invest in Asian bonds, the ABF2 Initiative has **acted as a catalyst for regulatory and tax reforms and improvements to market infrastructure** in the eight markets in which EMEAP has invested. The key ones include:

- **Accelerated tax reforms** in Malaysia and Thailand where non-resident investors have been exempted from withholding tax on investment income from local currency bonds.

- **Enhancement of regulatory framework** as in the case of Malaysia and Thailand where new regulations on ETFs were established to facilitate the listing of the Malaysia Fund and Thailand Fund as ETFs.

- **Further liberalisation of foreign exchange administration rules** in Malaysia to allow better access by foreign bond issuers and investors to hedging mechanism to mitigate foreign currency exposures arising from issuances and investments.

- **Improved regional market infrastructure** and reduction of cross-border settlement risk by establishing a custodian network covering all eight EMEAP markets. The listing of some ABF2 funds as ETFs has strengthened the linkage between bonds and equities clearing systems in individual EMEAP markets.

- **Harmonisation of documentation** as standard provisions of trust deed and prospectus of the PAIF, which are drafted in line with international best practices, were used as far as possible as model provisions for the documentation of the Single-market Funds. This has helped promote the adoption of best international practices across EMEAP markets, while allowing for regional diversity.

- **Introduction of a set of credible, representative and transparent bond indices** in the form of the iBoxx ABF Indices that can be adopted and customised by private sector investors as benchmarks for other fixed income or derivative products.

LESSONS LEARNT

In the process of designing and launching the ABF2 funds, EMEAP has drawn a few lessons that could be instructive to future central bank cooperation. These include:

- **Central banks can play a useful role in spearheading and coordinating regulatory reforms**. As bond market development does not fall squarely into the mandate of any government agency, the involvement of central banks has been particularly helpful in coordinating various government agencies to identify and remove market impediments.

- **Project-based and building-block approach of the Initiative is effective** in promoting bond market development. Having involved directly in product design, execution and promotion, EMEAP has gained in-depth understanding of the market impediments in the region and created practical solutions to address them. The experience is also useful for future reform work.

- **Public-private sector partnership is important in market development, especially in the development of new products**. To launch the ABF2 funds, EMEAP central banks have been working closely with the private sector (including the financial advisors, master custodian and fund managers) in the design, execution and offering of the ABF2 funds.

- **Market reality and regional diversity demands flexibility from central banks in promoting market development**. The launch of the yen-denominated Japanese feeder fund for the PAIF to attend to the home-bias of investors demonstrates the flexibility of EMEAP to address market reality in marketing the PAIF. In addition, the differences in the power scopes of different ABF2 funds' Supervisory Committees also reflect EMEAP's recognition of the diverse regulatory frameworks across EMEAP economies.

- **A transparent process in the implementation of the project is essential to ensure "buy-ins" from stakeholders, including regulators, intermediaries and investors**. The ABF2 project strived to ensure the public are kept updated on the progress through a series of press communications and to deepen investors' understanding in the product through ongoing investor education.

POSSIBLE NEXT STEPS

While the ABF2 Initiative has succeeded in removing a number of market impediments, not all of them have been fully resolved and EMEAP has identified some possible next steps to address them. Nevertheless, it should be noted that theses proposals are only intended to point the direction of future reforms and they should not be mistaken as prescriptive measures in any sense. Specifically, several areas have been identified for further work by EMEAP or other regional groupings:

- **Application of international standards in a regional context** – A possible area for work is to encourage adoption of minimum international standards and best international practices, while taking into account regional diversity.

- **Promotion of mutual recognition of financial products and intermediaries among EMEAP economies** – The lack of mutual recognition has posed obstacles to cross-border distribution of products and cross-border operations of intermediaries in the region. In a few markets, the registration of foreign investors for access to domestic markets has been difficult and time consuming. In conjunction with promoting adoption of international standards, EMEAP regulators may consider extending recognition to products and intermediaries registered in other EMEAP jurisdictions through bilateral agreements.

- **Removal or reduction in withholding tax and capital gains tax** – These taxes remain high in a few EMEAP economies. Relevant central banks should work with the respective tax authorities to explore the possibility of reducing or removing them.

- **Development of repo and securities lending markets for local currency bonds** – The "buy-and-hold" preference of Asian investors is identified as one of the main reasons behind the low level of liquidity of Asian bonds. EMEAP may assist member economies in developing repo and securities lending markets so as to make available the bond holdings of the "buy-and-hold" investors for borrowing by other market participants.

- **Enhancement of iBoxx ABF Indices** – The criteria for inclusion of bonds into the iBoxx ABF Indices should be regularly reviewed to ensure that the Indices remain representative and replicable. The transparency in the compilation of the Indices and their determinants (e.g. the market openness scores) should be enhanced. The dissemination of the Indices in EMEAP economies should also be improved so as to raise investors' awareness of these Indices.

- **Raising the transparency of Asian bond markets** – One of the factors contributing to the wide bid-ask spreads of Asian bonds is the lack of transparency in pricing. The listing of the ABF2 funds as bond ETFs has raised the transparency of trading activities in terms of pricing and turnover. In light of this experience, further efforts should be made to improve the transparency of the Asian bond markets.

I. BACKGROUND

1. One of the lessons that Asian economies learnt from the Asian Financial Crisis 1997-1998 is the importance of developing a deep and liquid domestic bond market in order to reduce the corporate sector's reliance on financing through bank borrowing.

2. Corporates in Asia had been so over-dependent on bank financing that when the banking sector seized up, as was the case with several crisis-hit economies during the Asian crisis, there was no alternative source of financing. The problem was exacerbated by the fact that many corporates were over-extended in short-term foreign currency loans to finance their long-term investments in local currency. Hence, the drop in the external value of Asia's currencies combined with a sharp rise in short-term rates at the time of crisis brought tremendous stress to the entire corporate sector in Asia. This problem of a double mismatch in currency and maturity could have been avoided or reduced had there been a deep and liquid domestic bond market that offered long-term funds.

3. As discussed at various regional forums, central banks and monetary authorities in Asia have generally agreed that as a first step to improve regional financial intermediation, we should encourage savings in Asia to be invested into investment instruments in the region. The saving rates of Asian economies, ranging between 30% and 50%, have traditionally been high when compared to other parts of the world. The bulk of these official savings was and still is invested in financial instruments in G-3 markets, in particular US Treasuries, as Asian central banks generally have strong preferences towards bonds of top credit quality. While a small part of these Asian savings have returned to the region from the developed markets in the form of bank lending and portfolio inflows, such inflows tend to be volatile and can reverse suddenly, and these actions could potentially be destabilising and even devastating to the financial markets and the real economy.

4. Following the Asian crisis, Asian economies have seen rapid accumulation of foreign reserves as a result of persistent current account surpluses and inflows of capital. While more savings have been invested in Asian bonds, more still have gone to G-3 bonds.

5. It was against this background that HKMA presented a paper at the EMEAP Working Group on Financial Markets[1] (Working Group) Meeting in June 2002 in Hong Kong on establishing an Asian Bond Fund (ABF) to invest part of EMEAP economies' foreign reserves in Asian bonds. EMEAP Deputies at their meeting in Jeju, Korea in November 2002 supported the Working Group's proposal to first establish a fund to invest in US dollar-denominated sovereign and quasi-sovereign bonds issued in Asia (ABF1), with the view that a local currency-denominated ABF (ABF2) would be pursued at a later stage. The proposal was formally endorsed by EMEAP Deputies at their teleconference in April 2003.

[1] EMEAP, the Executives' Meeting of East Asia-Pacific Central Banks, is a cooperative forum of 11 central banks and monetary authorities in the East Asia and Pacific region comprising: 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 ng Pilipinas, Monetary Authority of Singapore and Bank of Thailand. The EMEAP Working Group on Financial Markets, one of the three working groups established under EMEAP, studies central bank services and the developments of foreign exchange, money, and bond markets.

6. Following the successful launch of the ABF1 in July 2003, the Working Group proceeded with the design of an ABF2 investing in Asian bonds denominated in local currencies. By November 2004, the Working Group had finalised the design and implementation plan of the ABF2, with the assistance of private sector financial advisors. In December 2004, a joint press statement was issued by the EMEAP Group to announce the launch of the ABF2 project (Annex A). The press announcement on the move of ABF2 into the implementation phase was made in May 2005 (Annex B).

II. Review Outline

7. The ABF Initiative represents the first time that central banks and monetary authorities have earmarked a small part of their reserves for joint investments, and marks a historic milestone of cooperation for EMEAP central banks. The key objectives of the ABF Initiative are:

(i) providing an innovative, low-cost and efficient investment product in the form of passively managed index bond funds to broaden investor participation; and

(ii) identifying impediments to bond market development in EMEAP economies and acting as a catalyst for regulatory reforms and improvements to market infrastructure.

8. The purpose of this Review is to document the decision-making process and the considerations that had gone into the framework of the initiative, to draw lessons from the exercise and to see to what extent the above objectives have been met, what obstacles were encountered and where further work may need to be done. This hopefully would help guide future plans in further developing the bond markets in the EMEAP economies. The rest of this paper is structured in the following manner:

III. Product Design

Structure and Size of ABF2

9. ABF2 invests in local currency-denominated bonds issued in eight emerging EMEAP markets[2] and, as with ABF1, excludes debt securities in the three developed markets, Australia, Japan and New Zealand. Likewise, investments of ABF2 are confined to sovereign and quasi-sovereign issues and exclude corporate bonds and asset-backed securities, since EMEAP members would like to avoid moral hazard problem and to ensure the eligibility of ABF2 as foreign reserves.

10. At the outset, two structures for ABF2 were identified for consideration by the Working Group:

(i) The first proposed structure was a single bond fund investing in local currency bonds in eight EMEAP markets later known as the ABF Pan Asia Bond Index Fund (PAIF). With the aim of promoting Asian bonds as a distinct asset class to institutional investors, the PAIF targets primarily regional and international investors who want to gain exposure to Asian

[2] The eight EMEAP markets are China, Hong Kong, Indonesia, Korea, Malaysia, the Philippines, Singapore and Thailand.

bond markets in a convenient and cost-effective manner.

(ii) The other proposed structure was a family of eight Single-market Funds (previously known as the Fund of Bond Funds (FoBF)), which in turn invests in local currency bonds in the underlying markets. The Single-market Funds are intended to provide local investors, especially retail investors, with low-cost vehicles to invest in local currency bonds and, at the same time, to give regional and international investors the flexibility to invest in Asian bond markets of their own choice.

11. The financial advisors confirmed the viability of both structures and recommended the Working Group to adopt both so as to broaden the pool of potential investors. After discussion, the Working Group decided to allocate half of EMEAP's initial investment in ABF2 to the PAIF and half among the eight Single-market Funds. As in the case of ABF1, EMEAP's investments in the nine ABF2 funds would be held through the Bank for International Settlements (BIS) in the form of a US dollar-denominated BIS Investment Pool (BISIP).

12. EMEAP's investment in the ABF2 would be around US$2 billion, double the size of ABF1 but relatively small when compared with the total capitalisation of the eight EMEAP bond markets of around US$ 1,538 billion. Moreover, the size of individual ABF2 funds had been carefully considered so that it would not be so large to crowd out private sector investors in the respective markets, but yet the funds would be able to benefit from economies of scale. The allocation made by the PAIF, with reference to the country weights of iBoxx ABF Pan-Asia Index, as of March 2005 was set out in Table 1.

Table 1: Domestic Bond Market Capitalisation of EMEAP Economies

Markets	**Domestic bond market capitalisation** (1) (US$ billion)	**Allocation made by PAIF** (2) (US$ million)
China	550.8	112.8
Hong Kong	46.6	170.5
Indonesia	55.2	61.4
Korea	599.1	212.6
Malaysia	114.6	107.6
Philippines	36.1	51.9
Singapore	65.7	187.0
Thailand	70.3	96.2

Notes: (1) As at June 2005
(2) As at March 2005

Source: Bank for International Settlements

Design Parameters of Underlying Funds

13. Given that one of the objectives of the ABF2 is to encourage and broaden investor participation, EMEAP members agreed that the underlying funds of ABF2 should ultimately be offered to the public. To broaden the product appeal to the large cross-section of institutional and retail investors, it was felt that the product be designed as a low cost vehicle, particularly since existing bond investments or bond funds typically require high minimum investment and high management fees. These latter features of existing products had deterred investor participation especially at a time of low bond yields. Consistent with these objectives, a set of design parameters had been agreed upon as follows:

(i) *Low cost* – The funds should have low initial investment costs and management costs as well as low recurrent expense ratio;

(ii) *Wide distribution* – The funds should be made available across a wide spectrum of investors, including institutional and retail investors and domestic and foreign investors;

(iii) *Tracking Net Asset Value (NAV)* – Given the low yields of bond funds, a significant deviation of listed price of fund units from NAV would discourage retail investment and trading on the stock exchange. It was therefore decided that the design of the funds should encourage traded price to track NAV;

(iv) *High liquidity* – Fund units should be able to be purchased and sold easily in reasonable size and with a reasonable bid-ask spread.

14. In light of the above parameters, the Working Group agreed that the ABF2 funds should be **passively managed** for lower management fees, and where possible, **listed on the stock exchange** for lower transaction costs and ease of access by all investors.

Listed Open-ended Fund and Exchange-traded Fund

15. Among various forms of listed funds, the Working Group noted that the unit price of listed close-ended funds (which have a fixed number of units) could deviate significantly from the NAV per unit from time to time. Hence, an open-ended structure was preferred, as it allows the ABF2 funds to grow perpetually and helps reduce the gap between unit price traded on the exchange and NAV. By allowing investors to subscribe and redeem at NAV over-the-counter, a listed open-ended fund gives market participants the opportunity to profit from any significant difference between unit price traded on the exchange and NAV, thereby closing any price gap. If the unit price of an open-ended fund is being traded on the exchange at a premium to NAV, a market participant could subscribe for new units at NAV and sell them at the premium price on the exchange to make a profit. These arbitrage activities ensure that the unit price would not deviate significantly from the NAV.

16. Subscription and redemption of units in listed open-ended funds can be conducted in cash or in-kind[3]. Listed open-ended funds with in-kind subscription/redemption mechanism are commonly known as exchange-traded funds (ETFs). Bond ETFs are a successful new asset

[3] Under the in-kind mechanism, units of the fund can be created by surrendering a basket of index constituent bonds specified by the fund manager. In the case of redemption, the fund manager will deliver a basket of index constituent bonds in exchange for the units being redeemed.

class in Europe and the US, but their appeal to Asian investors has never been tested as there was no similar product in the region. Nevertheless, the Working Group considered the bond ETF as the preferred structure for the ABF2 funds in certain markets because its in-kind feature would not only narrow the deviation between unit price and NAV but, by requiring dealers to deliver/accept securities in subscription/redemption, would also stimulate trading of the underlying bonds in the secondary markets.

17. When working on the ETF structure for some ABF2 funds, the Working Group noted that bond ETFs, unlike equity ETFs, did not require in-kind subscribers to offer all the constituent securities of the benchmark index as consideration. Rather, the subscribers only need to present a basket of index constituent securities specified by the fund managers. Similarly, in-kind redemption for bond ETFs is conducted in baskets, which may or may not be the same as the creation basket. Despite being only a sample of the index constituents, the creation/redemption baskets are constructed in such a way that they resemble the entire portfolio of the fund in terms of credit, duration and yield. This sampling approach is crucial to the success of bond ETFs since it makes in-kind subscription/redemption much easier for market participants.

Management Style

18. Cost and risk were the Working Group's key considerations in determining the investment style of the PAIF and Single-market Funds. The Working Group preferred a passive management style to an active one because it would be inappropriate for EMEAP to invest in actively managed funds that would be making punts on the future direction of individual EMEAP economies' monetary policies. A passive management style was also preferred on the grounds that passively managed index bond funds entail a lower management fee and offer lower volatility in returns when compared with the more popular actively managed bond funds. Moreover, the passively managed bond funds would introduce to the public a concept of benchmarking fund performance against relevant indices. This concept is not common in Asia where investors tend to compare fixed income investment returns with deposit rates only. A further benefit of passive management was the non-discretionary approach in selection of bonds, i.e. only bonds that are included in the bond index would be bought and inclusion is based on pre-determined rules set out by the independent index provider. This would address any potential or perceived concern for central banks being seen as rescuing failing issuers by injecting liquidity through bond investment.

Choice of Index Provider

19. The passive management approach requires transparent, representative and replicable benchmark indices. A number of Asian bond indices were available at the time but it was noted that the data source for those indices was in many cases proprietary data obtained from the trading desk of the index provider concerned. The Working Group however also noted that at that time in the US and Europe, there were indices compiled based on a more sophisticated platform, whereby the index provider uses price data provided by several active market dealers. A multiple-contributor pricing model as such is preferable because price data coming from only a single source would not be representative of the market, and thus fund managers would find it difficult to replicate the performance of index priced with single-source data.

20. It also appears that one of the pre-conditions for such a platform is that the index provider does not engage in dealing in the

bond market itself, otherwise price providers will not be comfortable in providing price data that is of a proprietary nature. Furthermore, an index provider that does not at the same time deal in the bond markets concerned provides added credibility in terms of impartiality.

21. In August 2004, the Working Group invited several private sector index providers to present proposals on the development of benchmark indices for the ABF2. International Index Company (IIC), a Frankfurt-based independent index provider, was eventually selected as the index provider for ABF2 benchmark indices, given its robust multiple-contributor pricing model. However, considering IIC's lack of track record in producing Asian bond indices, the Working Group suggested that the firm co-operate with other leading market players in the region to compile the indices. This new set of Asian bond indices, which was later named the iBoxx ABF Index Family, was launched in May 2005. Details about the indices are available at website: www.indexco.com.

22. To ensure the credibility of the Indices, the IIC has put in place a governance arrangement to oversee the index compilation process. Similar to other indices provided by IIC, the arrangement for the ABF iBoxx Index Family consists of two committees, namely the Asian Index Committee and the Asian Oversight Committee. The functions of the Asian Index Committee are to review the Indices on a regular basis and, if necessary, recommend changes to index rules, market openness scores and country weights. The Asian Index Committee also helps the IIC resolve day-to-day compilation issues, such as classification of bonds. Membership of the Asian Index Committee includes the most active players in Asian bond markets, with good knowledge in both domestic and regional bond markets. The Asian Index Committee's recommendations are reviewed by the Oversight Committee, which mainly comprises fund managers in the region.

Construction of Benchmark Indices for ABF2 Funds

23. In the construction of the iBoxx ABF Indices, the Working Group had wanted the construction rules to be as transparent and as rule-based as possible so that the indices can serve as an objective indicator of the performance of the markets concerned over time without discretionary adjustments. This will also enhance the predictability of the indices in terms of inclusion and exclusion of constituents, thereby making it easier for fund managers seeking to replicate the performance of the indices. While there is little difficulty defining sovereign issues, there were different market conventions in defining quasi-sovereign bond issues. After many rounds of discussion, the Working Group had come to the view, later on adopted by IIC, that quasi-sovereign bonds should meet the following criteria:

(i) Bonds explicitly guaranteed by the government; or

(ii) Bonds issued by entities that were wholly or majority-owned by the government and had obtained from an international credit rating agency a credit rating comparable to the government (for instance a considerable rating differential of say three notches below would suggest that the issuer does not belong to the quasi-sovereign sector).

24. Given the fact that most government-owned entities in Asia were not rated or only had credit ratings from local credit rating agencies, this definition if applied rigidly would have excluded some bonds issued by issuers that are widely recognised by market participants as quasi-sovereign issuers, greatly reducing the pool of eligible quasi-sovereign bonds. After

discussion, the Working Group agreed to include, on a case-by-case basis, bonds issued by unrated quasi-sovereign issuers in the index, provided that there is evidence that the issuers concerned have strong links to and support from the government.

Market Allocation

25. While market capitalisation is commonly used to determine the relative weights of bonds or equities within one market, there is not a set of commonly used factors to determine the relative weights among markets for a regional index such as the iBoxx ABF Pan Asia Index. After having deliberated on considerations including methods used in existing indices and the practical circumstances in the eight EMEAP markets such as the availability and comparability of source data, the Working Group and IIC agreed that the country weights should be determined by four factors:

(i) *Bond market capitalisation* – The size of the local currency bond market in US dollar;

(ii) *Turnover ratio* – A proxy of market liquidity derived from comparing total daily transaction size to the market capitalisation;

(iii) *Sovereign credit rating* – The highest of the local currency long-term sovereign credit ratings from Fitch, Moody's and Standard & Poor's; and

(iv) *Market openness score* – A qualitative factor that gauges the relative openness of the eight EMEAP markets.

26. Determination of the "market openness score" was a subject under scrutiny by EMEAP members. The rationale of having this score was to recognize that market-openness measures introduced in a particular market would increase accessibility and hence investors seeking to diversify would be able to invest a higher weight into the market concerned than prior to the measures. Nevertheless, market openness is not an exact science and qualitative judgement is required. In order to minimise bias, the score was determined by polling members of IIC's Asian Index Committee. The market openness scores, and subsequently the country weights, were reviewed by the Oversight Committee for endorsement before adoption. The weights are reviewed annually in September. The weights for each market, originally set in April and subsequently revised in October 2005, are as follows (Table 2):

Table 2: Country Weights of iBoxx ABF Pan-Asia Index

Markets	**New weights** (October 2005)	**Previous weights** (April 2005)
China	11.24%	11.28%
Hong Kong	18.30%	17.05%
Indonesia	5.99%	6.14%
Korea	20.67%	21.26%
Malaysia	10.70%	10.76%
Philippines	4.96%	5.19%
Singapore	18.22%	18.70%
Thailand	9.92%	9.62%

27. The Working Group was of the view that allocations of EMEAP investment in the PAIF and the eight Single-market Funds should be market-based and as such reference are made to the country weights of the iBoxx ABF Pan Asia Index. EMEAP invested a total of US$2 billion in the ABF2, with US$1 billion allocated to the PAIF and US$1 billion distributed among the eight Single-market Funds.

Place of Domicile and Listing

28. To promote the development of domestic bond markets, the Working Group decided that

the eight Single-market Funds should be domiciled and, where applicable, listed in their respective markets. In the selection of domicile for the PAIF, EMEAP members were aware that most of the foreign funds sold to Asian investors are domiciled in tax-havens to reduce the tax burden, given that a number of EMEAP economies still impose withholding tax and capital gains tax on foreign investors. The financial advisors with the assistance of the external legal and tax advisors were given a task to identify a non-EMEAP location and an EMEAP location as domicile for PAIF. The assessment was that Dublin, Hong Kong and Singapore stood out as favoured domicile jurisdictions in terms of operational efficiency, legal and regulatory requirements. Upon further examination of the tax structure, Singapore and Dublin appeared to be the most tax efficient as Hong Kong was disadvantaged by its lack of tax treaties with other EMEAP economies. In the end, the Working Group chose Singapore as the domicile for the PAIF, as an EMEAP domicile was preferred.

29. On the location for listing of PAIF, the Working Group considered the case for multiple listing but had come to the view that in order to avoid the risk of fragmenting liquidity between several markets, it would be appropriate to begin with a single listing, with subsequent listings in other markets to be considered at a later stage. It followed that, as supported by analysis by the financial advisors based on (i) legal and regulatory framework, (ii) market attributes such as market turnover of listed funds, and (iii) qualitative measures including potential demand for EMEAP currency bonds, the Working Group agreed on Hong Kong to be the place for PAIF's initial listing.

30. The Working Group had also decided that additional listings should be considered by the Supervisory Committee of PAIF after an initial period based on the following criteria to be considered by the fund manager:

(i) Commercial viability;
(ii) Legal and regulatory readiness of the market concerned;
(iii) Prevailing market environment;
(iv) Operational requirements; and
(v) Market development.

31. Given that the PAIF was to be domiciled in Singapore and was to be initially listed in Hong Kong, it entailed that the fund manager of the PAIF being based in Singapore and the PAIF being authorised for sale in both Singapore and Hong Kong. The regulations required the fund manager to be subject to the regulation of the Securities and Futures Commission of Hong Kong (HKSFC) or based in a country on a specific list of jurisdictions with acceptable inspection regimes which did not include Singapore. A similar issue also arose if the fund manager were to be based in Hong Kong and were to seek authorisation in Singapore. The matter was eventually resolved with State Street Global Advisors (SSgA) Singapore dually licensed by the HKSFC and MAS.

Eligibility as Foreign Reserves

32. The Working Group had worked closely with the IMF to seek confirmation that ABF2 holdings qualify as international reserve assets, which is critical to participation by all EMEAP central banks. This was an unprecedented exercise as the issue of the qualification of a central bank's holdings in bond funds invested in Asian-currency denominated bonds (including those issued by its own economy) as foreign reserves was new. The Working Group had put forward a strong argument based on the three established criteria set out in IMF's *International Reserves and Foreign Currency Liquidity: Guidelines for a Data Template* for qualification as follows:

(i) *Claim on non-residents* – The use of the BIS Investment Pool (BISIP) as an investment vehicle for ABF2 funds means that the investments by EMEAP central banks represent claims on the BIS, a non-resident;

(ii) *Liquidity* – The claims by EMEAP central banks are in the form of units in the BISIP Series Asian Bond Fund 2 (BISIP-ABF2) which in turn invests in the ABF2 funds. The BISIP-ABF2 units are denominated in US dollars and EMEAP central banks can make redemption on demand in US dollars at a price reflecting the market value of the underlying assets, thus satisfying the liquidity requirement.

(iii) *Currency convertibility* – BIS has agreed to provide redemption of BISIP-ABF2 units on demand and in US dollars, a key to satisfying (ii).

33. In September 2004, the IMF confirmed that in their view, investments by EMEAP central banks in ABF2 meet the residence, liquidity and currency convertibility criteria, provided the country concentration of underlying assets did not become such as to constrain the ability of a central bank to generate external liquidity. Also, EMEAP central banks that subscribe to IMF's Special Data Dissemination Standard (SDDS) are reporting their investments in ABF2 in the reserve template based on guidelines agreed with the IMF.

IV. Product Execution

Selection of Fund Managers

34. The Working Group considered it important that the selection of financial advisors, fund managers and master custodian for the ABF2 funds should be done in an objective, equitable and competitive manner consistent with high governance standards. During the selection process, a centralised approach was adopted in choosing the fund manager for the PAIF and the master custodian while a decentralised approach was used in selecting the fund managers for the eight Single-market Funds. An external search consultant was hired to assist with the selection of the fund managers for the PAIF and the eight Single-market Funds in order to apply uniform and objective assessment criteria across markets and perform due diligence on the short-listed candidates.

35. For the PAIF, the Working Group identified several candidates on the basis of their capability in managing passive fixed income products and their experience in managing Asian bonds. These candidates made presentations to a selection panel comprised of Working Group members in December 2004. The candidates were assessed based on four key criteria, including investment capability, marketing ability, commitment to Asia and plan for migration from Phase 1 to Phase 2. Overall, SSgA scored the highest and was selected as the fund manager for PAIF.

36. In respect of the eight Single-market Funds, the Working Group endorsed an initial list of five to eight candidates for each of the funds recommended by the respective central banks on the basis of their experience in local bond markets and their capability in managing bond funds. After due diligence visits conducted by the external search consultant, the Working Group agreed on a shortlist of candidates for the eight Single-market Funds. The respective central banks then formed selection panels in their own markets to interview the shortlisted candidates and make recommendations to the Working Group for centralised review. After considering the selection panels' recommendations, the Working Group selected the following fund managers for the eight Single-market Funds (Table 3):

Table 3: Fund Managers of Single-market Funds

Single-market Fund	Fund Manager
China	China Asset Management Corporation Limited
Hong Kong	HSBC Investments
Indonesia	Bahana TCW Investment Management
Korea	Samsung Investment Trust Management
Malaysia	AmInvestment Management
Philippines	Bank of the Philippine Islands
Singapore	DBS Asset Management Ltd
Thailand	Kasikorn Asset Management

Selection of Master Custodian

37. The role of the master custodian is twofold. At the BISIP level, it acts as a custodian for EMEAP's investments in the BISIP-ABF2. It also provides sub-custody services as well as trustee services to the underlying funds. The Working Group agreed that a master custodian for all ABF2 funds, as compared to a network of individual local custodians for each of the nine funds, could help lower overall custody fees, consolidate reporting, and apply consistent compliance standard to all nine funds. The Working Group invited several custodian banks, which stood out in terms of the size of assets under custody and the extent of custodian network in the eight EMEAP markets to present proposals to the same selection panel that assessed the fund managers in December 2004.

38. The firms were assessed in accordance with their ability in providing master-custody and sub-custody services and the fees they quoted. With the assistance of the BIS, the Working Group finally selected HSBC as the master custodian of ABF2 in light of its extensive network of sub-custodians in the region and lower custody fees. With the exception of China, HSBC is able to provide custody services through its local branches or wholly-owned subsidiaries in the eight EMEAP markets.

39. The recommendations of the Working Group on the fund managers and global custodian were endorsed by EMEAP Deputies at end December 2004.

Role of BIS

40. BIS is the administrator for the nine ABF2 funds and EMEAP investments are held through a BIS investment vehicle, the US dollar-denominated BIS Investment Pool (BISIP). As such, BIS monitors the performance of the nine underlying funds, compiles monthly reports, and rebalances the allocation of funds to the 9 funds in case of changes in the country weights of the iBoxx ABF Pan Asia Index or in other circumstances as necessary. It is also responsible for implementing procedures for transition of EMEAP's investments from Phase 1 to Phase 2, and preparation of the annual report and audited financial statements.

Two-phase Implementation Plan

41. Upon the advice of the financial advisors, the Working Group adopted a two-phase approach in launching the ABF2 funds. In Phase 1, investment in the ABF2 would be confined to EMEAP only. It was further decided that all ABF2 funds in Phase 1, with the exception of the Indonesia Fund and the Korea Fund, would take the form of managed accounts, which were quicker and cheaper to set up. Under this arrangement, the administrator of ABF2, BIS, would open a custody account with HSBC and sign up different fund managers to manage the ABF2 portfolios under the custody account. The Indonesia Fund and the Korea Fund would still be established as private funds in Phase 1 due to local regulatory requirements. Against this background, the Working Group proceeded to work with the BIS and the nine fund managers to finalise the Investment Management Agreement (IMAs) for the seven

ABF2 managed accounts and the relevant legal documents for the Indonesia Fund and the Korea Fund during March-April 2005 period.

42. In Phase 2, the ABF2 funds would be offered to the public subject to regulatory requirements. For migration of EMEAP investments from Phase 1 to Phase 2, BIS, on behalf of EMEAP, would transfer the underlying bonds contained in the Phase 1 managed accounts into the trust funds in exchange for units owned by EMEAP in the Phase 2 funds. The transfer could take place either just prior or after the funds are offered to the public. As for the Indonesia and Korea funds, which already were in the form of trust funds, it would simply open up the Phase 1 funds for investment by the public in Phase 2. Overall, the two-phase approach has proved to be effective as it helped to speed up the set-up of the ABF2 funds in Phase 1, while allowing the fund managers to gain experience in managing the funds in a passive manner before the funds are offered to the public in Phase 2.

Offering Approach

43. Regarding the offering approach, consideration was given to the market infrastructure and legal regulatory constraints. It was agreed that the ABF2 funds should be offered through listing, where appropriate, so as to facilitate retail participation and enhance the transparency of pricing and turnover. Bond ETFs are preferred given that their in-kind creation and redemption mechanism have the benefits of narrowing the difference between NAV and unit price. However, it was noted that the PAIF might not be able to adopt an ETF structure in light of the difficulty in specifying a replicable in-kind basket. Finally, the Working Group agreed that the PAIF would be launched as a listed open-ended fund and that the Single-market Funds would be offered to the public either as unlisted open-ended funds or bond ETFs.

44. The manager of the Thailand Fund noted that it was impractical to launch the fund as a bond ETF without an IPO in Thailand. Finally, the manager managed to secure underwriters at zero cost, and no pre-determined sale target was set for the IPO. After considerable discussion, the Working Group decided to support the manager's proposal of launching the Thailand Fund through an IPO.

Funding and Portfolio Construction

45. EMEAP completed the US$1 billion funding of the PAIF in March 2005 and injected another US$1 billion into the eight Single-market Funds in April 2005. The fund managers commenced portfolio construction immediately after the funding but slight delays in portfolio construction were experienced in some markets due to the relatively long approval process, relative inexperience of the fund manager in new markets, and difficulties in sourcing the illiquid bonds. In replicating the indices, most difficulties were encountered in sourcing long-dated bonds and/or quasi-sovereign issues, which were mostly held until maturity by long-term investors.

46. In fact, this problem was well anticipated as some fund managers had expressed concerns over the inclusion of some illiquid bonds in the Indices during earlier discussions with the Working Group. Yet, the Working Group noted that excluding such long-dated bonds and quasi-sovereign issues would compromise the representativeness of the Indices, and therefore agreed with IIC to leave them in the index universe. To mitigate the problem, the fund managers are allowed under their mandates to use non-index constituent bonds as proxies, provided that such proxy

bonds are issued by the same issuers in the index universe.

47. According to the feedback of the fund managers, proxy bonds have been highly useful in portfolio construction. Some fund managers even indicated that these proxies had helped narrow rather than widen the tracking error of the funds. In the longer term, the Working Group recognised that there might be a need to review the criteria for index constituents, particularly the minimum issuance size requirement that restricts the entry of some small but liquid issues into the index universe. It was understood that such review would be undertaken by IIC, with the assistance of the Asian Index Committee and Oversight Committee.

Engagement of Market Makers and Participating Dealers

48. Market makers were recruited for the listed funds to provide liquidity and ensure fair pricing of the units in the secondary markets. Since market makers are required to quote two-way prices within a reasonable bid-ask spread on the exchange, they would use the funds' NAV as a baseline in determining the appropriate buying and selling prices. In addition, the fund managers would also need to engage participating dealers.

49. To encourage investment banks to sign up as market makers, the Working Group allowed the fund managers to offer monetary incentives, such as waiver of dilution levy, as well as non-monetary incentives, such as priority in creation/redemption. As for market makers for the PAIF, they have priority in having the redemption orders processed in the event that the daily maximum limit is reached[4]. These incentives have been useful in the recruitment of market makers as some investment banks were initially a bit cautious in committing capital for market making, given the uncertain demand for the funds.

50. To be eligible as a market maker, an investment bank must first register as a participating dealer. Participating dealers are given the right to conduct creation and redemption of fund units with the fund manager, subject to a certain minimum size requirement. Investors are required to subscribe or redeem through the participating dealers, or they have to purchase or dispose of units on the exchange. Participating dealers are important to ETFs as they serve as a distribution channel to institutional investors who prefer dealing over-the-counter in bigger size. At the same time, they also provide a convenient channel to aggregate small orders of retail investors to meet the size limit for periodic creation. To avoid recruiting "dormant" participating dealers, some fund managers required interested parties to make a seed investment in the funds before signing up as participating dealers.

Governance Arrangement

51. During the implementation process, it came to the Working Group's attention that the checks and balances between the fund managers and trustees under common practices might not be sufficient to safeguard the interests of unit-holders. Taking the common law convention as an example, given the reality that the trustee is "engaged" by fund manager as the organiser of the fund, the trust deed would often

[4] For PAIF, due to regulatory restrictions in certain markets and the potential difficulty in obtaining sufficient liquidity for the fund manager to sell bonds in all eight markets within a short space of time upon redemption by investors, there are maximum daily limit put in place for redemption.

be written in a way that the trustee may not have an effective means to act as a check to the fund manager, notwithstanding their fiduciary duties to the unit-holders. While in theory unit-holders could also remove the fund manager on grounds of wrongdoings, in practice it would be very difficult to gather sufficient votes to pass a resolution to do so. As such, very often the only practical recourse available to unit-holders is redemption of their investments. In light of this, the Working Group considered it important to strengthen governance by:

(i) Setting out more clearly the checks and balances between the trustee and the fund manager in the fund documents, and

(ii) Where regulations permit, putting in place a Supervisory Committee (SC) to oversee the work of the fund manager and trustee of the funds after launch.

52. It was recommended that a SC be set up for each ABF2 fund, with the powers of the SC clearly specified in the relevant trust deed or fund document. The Working Group had also established some guiding principles on the mandate of the SC. First, the SC should represent the interests of all unit-holders, including EMEAP. Its role is mainly to advise the fund manager and trustee on strategic issues of the fund, such as additional listings, and it is not supposed to involve in the day-to-day management of the fund. Second, in order to perform its monitoring function, the SC should have the power to request information from the fund manager and trustee. Third, the SC should be granted the power to remove fund manager and trustee when there are valid grounds to do so, but with the condition that the SC could only remove the fund manager with the consent of the trustee, and remove the trustee with the consent of the fund manager. In case the trustee or fund manager does not approve such removal, the SC should have the right to convene a unit-holders' meeting to vote on the proposed removal.

53. For markets where regulations do not allow SC to be vested such removal powers or prohibit forming of SCs altogether, the Working Group considered that a necessary fallback position would be for unit-holders to have the right to vote on the removal of the fund manager and the trustee on valid grounds, or to be granted the power to terminate the fund, which effectively means a removal of the fund manager.

54. Regarding the composition of SCs, the Working Group was in favour of academics and professionals who have good knowledge in financial products and are independent from the fund manager and the trustee. For continuity, the Working Group also decided that each SC should initially consist of at least one member from the relevant central bank, and that such member(s) may retire when EMEAP becomes a minority unitholder in the fund in the future. Similarly, for the PAIF, the Working Group agreed that its SC would initially comprise one representative from each of the 11 EMEAP central banks, and that non-EMEAP members may be appointed at a later stage. The main reason of EMEAP members' participation in the SCs is that they have a good understanding of the funds and are therefore in a better position to monitor the fund managers and the trustees.

Investment Guidelines

55. In drafting the IMAs for the ABF2 funds in Phase 1, various investment guidelines have been put in place to ensure that the fund managers would not deviate from the passive management style. These guidelines were later elaborated and incorporated into the trust deeds of the Phase 2 funds. In general, the investment guidelines of the Single-market Funds follow those of the PAIF, although some

adaptations have been made in order to meet local regulatory requirements. In summary, the key investment guidelines of the PAIF are as follows:

(i) *Non-index securities* – Investment in non-index securities is confined to those issued by the same issuers in the index universe. Total investments of the fund in non-index securities should not exceed 20% of the value of the fund's assets.

(ii) *Cash* – To prevent the fund duration deviating too much from the benchmark duration, holdings of cash and cash equivalents (which have zero duration) by the PAIF is capped at 10% of the value of the fund's assets. To avoid concentration risk, cash deposited with a single bank is not allowed to exceed 5% of the value of the fund's assets.

(iii) *Derivatives* – The fund is not allowed to invest in derivatives for speculation. Investment in derivatives, such as futures, options, and repurchase agreements, should be for hedging or efficient portfolio positioning only. The maximum limits on derivative positions for hedging and efficient portfolio positioning are both set at 15% of the value of the fund's assets.

(iv) *Collective investment schemes* – Investment by the PAIF in other funds is prohibited.

(v) *Borrowing* – To prevent unnecessary leverage, the fund is only allowed to borrow in US dollars or any of the eight EMEAP currencies to meet short-term liquidity needs. The principal amount of all borrowings should not exceed 10% of the value of the fund's assets and the term of any single borrowing should not exceed four weeks.

Securities Lending Facilities

56. SSgA, the PAIF manager, suggested that EMEAP set up a securities lending facility to make available its holdings of PAIF units for borrowing by market makers and participating dealers. The main purpose of this facility is to help market makers and participating dealers accept large subscription orders and help increasing market liquidity.

57. After discussion, the Working Group approved SSgA's proposal and instructed the BIS to work with the master custodian, HSBC, to set up the securities lending facility. They managed to finalise the lending arrangement before the listing of PAIF. Under the final arrangement, the BIS would lend the units to the master custodian which would on-lend to market makers and participating dealers. The BIS has also developed a similar securities lending facility for the ABF Singapore Bond Index Fund.

Marketing

58. When formulating the marketing strategy for the ABF2 funds, the Working Group noted that the managers of actively managed funds would usually bear the marketing expenses, given the high management fees they charge to the funds. However, because of the low-cost structure of passively managed bond funds (ranging from 9 to 20 basis points in management fees), most managers of the ABF2 funds are not prepared to do extensive marketing. The Working Group was concerned that this would affect the build-up of investor awareness and receptiveness of the product.

59. Against this background, the Working Group agreed to raise the management fees of all ABF2 funds by 6 basis points, on the condition that the fund managers are committed to spend as much on marketing. Moreover, the fund managers are required to spend the 6 basis points on advertisements and publicity programmes, but not as monetary incentives to frontline marketing staff of distribution banks. The trustees have undertaken to review the marketing expenses of the managers after three years and if such level of marketing expenses is no longer required by the time, the management fees will be reduced accordingly.

60. Another important issue related to marketing is the reference to EMEAP in the marketing materials of the fund managers. While the ABF2 is widely known as an EMEAP Initiative, the EMEAP Group saw itself as only one of the ordinary investors in the funds. To avoid moral hazard problems, the Working Group required the managers to spell out clearly in the prospectuses that the ABF2 funds were neither guaranteed nor sponsored by the EMEAP central banks and that the EMEAP central banks have the right to withdraw anytime from the funds. Moreover, to prevent any misuse of EMEAP's name for marketing, the fund managers are required to seek the prior approval of all EMEAP members before publishing any marketing materials that contain references to EMEAP.

V. Product Performance

Growth in Assets Under Management

61. Given that one of the key objectives of the ABF2 Initiative is to encourage and broaden investor participation, it would be useful to evaluate the appeal of the ABF2 funds to institutional and retail investors. An objective criterion is the growth in assets under management. The six ABF2 funds that were open to the public experienced moderate growth in asset size during the initial offering periods but subscription orders slowed down subsequently. Overall, the asset size of the various listed ABF2 funds has grown by between 19% and 50% since the public offerings to end-April 2006.

62. The overall growth rate is respectable, given that a rising interest rate environment has been challenging to bond fund managers. During the second half of 2005, domestic interest rates in the eight EMEAP markets had risen by 27 to 175 basis points. At the same time, bond yields in Asia were compressed due to a further reduction in Asian risk premia, resulting in yet smaller yield pick-ups when compared to US Treasuries. PAIF, for example, was yielding about 4.75% at the end of February 2006 or at a premium of 10 basis points over US Treasuries of similar duration but the premium had turned into a discount of some 25 basis points by the end of April 2006. Meanwhile, the strong performance of the Asian equities markets had diverted interest of retail investors away from fixed-income market.

63. Based on feedback from fund managers, the funds were able to attract investors despite the low spread environment because of **the low-cost structure.** With expense ratios ranging from 25 to 40 basis points per annum for the ABF2 funds, the cost structure of these funds is among the lowest in the Asian markets. While a few ABF2 funds have relatively higher expense ratios than others, they are still the lowest cost product in their own markets. For most actively managed bond funds, the subscription fee varies from 3% to as much as 5%. The management fees range from 0.75% to 1.25% with total expense ratios exceeding 1.5% per annum. From this perspective, the Initiative has succeeded in bringing an alternative low cost vehicle relative to what is currently available in each of the eight markets. However, the low-cost structure is a double-edged sword. While a low expense ratio is an attractive feature to investors, it limits the resources available for

providing the necessary incentives for distributors to promote this product to the retail investors.

PAIF's Appeal

64. PAIF has grown by 19% in asset size since inception up to end-April 2006. In the same period, its NAV per unit has risen by about 7.9% (before dividend distribution) due largely to appreciation in Asian currencies. Such performance compares favourably with that of US treasuries of similar duration (4 years), which returned only 1.5% during the period.

65. The PAIF is quite appealing to institutional investors as a low-cost vehicle to invest in Asian bonds and a diversification play with an upside potential of the Asian currency exposure. But PAIF holds less of an appeal to retail investors as it is regarded by many as a brand new asset class which would take time to gain acceptance. There may be a need for more marketing and education among retail investors to reduce home bias.

66. To raise investors' awareness of the PAIF, the fund manager has stepped up the marketing roadshow campaign. Separately, it has been working on structured products with PAIF as the underlying. For example an investment bank has issued a capital guaranteed structured note linked to the performance of the PAIF. The note has been well received by private banking customers. A yen-denominated Japan-domiciled feeder-fund for investment in PAIF has also been established to address the home bias of Japanese investors.

Single Market Funds' Appeal

67. Fund managers indicated that the low-cost structure and the high transparency of the passive management style of the Single-market Funds were appealing to **institutional investors** who are more sensitive to cost and are looking for a low-risk product as an alternative to cash. In particular, the bond fund's design is suited to pension funds and insurance companies that need to hedge against their long-term local currency liabilities.

68. As to **retail investors**, fund managers had adopted mixed marketing strategies. In some EMEAP markets, the Single-market Funds target primarily high net worth individuals looking for risk diversification as well as stable income streams. In other markets, the funds are distributed through the branch network of commercial banks to small retail investors, who usually view the funds as an alternative to low-yielding bank deposits. In the case of Hong Kong, monthly saving plans are introduced by some commercial banks to facilitate retail participation in the Single-market Fund.

69. Nonetheless, **most fund managers considered product awareness of the ABF2 funds to be low,** despite the initial marketing campaign by the managers. They reckoned that the product needed to adopt a "supply push" approach (i.e. distribution through a sales force) because the funds were not so compellingly attractive that retail investors would seek them out for investment. The most effective means to "push" the product is for the front-line staff of commercial banks to promote it to their clients. However, the management fees of the ABF2 funds were so low that the fund managers have little room to provide monetary incentives for the retail distributors.

Secondary Market Turnover

70. The average daily turnovers of the listed ABF2 funds varied in performance, although they are relatively low on the whole as compared to similar products in the developed countries. A low turnover is reflective of limited retail interest

as well as the common "buy-and-hold" attitude of Asian investors toward bond products.

Market Making Tightens Bid-Ask Spreads

71. Each listed ABF2 fund has engaged at least one market maker to quote bid and offer prices within a reasonable spread. The use of market makers on the stock exchange has proved to be effective in tightening the bid-ask spreads, thus reducing the costs of transaction. For instance, the average bid-ask spread for PAIF was roughly US$0.18 (compared with a traded price of US$105) and for the Hong Kong Bond Index Fund it was HK$0.09 (compared to a traded price of HK$97). Such spreads were narrower than those commonly observed for Asian corporate bonds.

72. The market making approach has also helped to prevent large deviations between unit price and NAV, as market makers quote two-way prices with reference to the NAV per unit. The ability of the traded prices to track NAV is important as any significant deviation would discourage retail investment and trading on the stock exchange.

Securities Lending Facilities

73. A key determinant of liquidity in developed markets is the ability to borrow bonds to go short or for inventory management purposes. We have developed securities lending facilities to make available EMEAP's holdings of PAIF units for borrowing by market makers and participating dealers. The facility was designed to cope with large creation orders and help increasing market liquidity. The BIS has recently developed a similar facility for the ABF Singapore Bond Index Fund.

Exchange Traded Funds

74. A challenge for the bond ETFs has been the liquidity of the underlying markets and the ability to put together a parcel of bonds that could be used for in-kind subscription. In the case of Hong Kong Bond Fund, partial in-kind subscription has been used for creating units and HSBC Investments, the fund manager, reported that the process was smooth and viable. However, the manager said it was not aware of any classic case of arbitrage activity involving in-kind creation or redemption, whereby participants would close the gap between traded unit price and NAV. This is in part because the market making approach has been so successful in narrowing the gap between unit price and NAV. The manager is of the view that the existence of a mechanism to allow arbitrage via in-kind subscription is desirable as it provides confidence in the ETF structure in that the traded bond fund price would track NAV.

Low Tracking Differences

75. The performance of ABF2 funds has been closely tracking that of the benchmark indices, especially in terms of duration. Since the funds have been running for less than a year, it is not so meaningful to compare their ex-post tracking errors[5]. Yet, the differences between the funds' total returns and their benchmarks' returns are reasonably small, suggesting that the passive management strategy is viable. In most cases, the return differences are due to recurrent expenses of the funds, such as taxes, management fees and transaction costs, as well as initial set-up costs, such as legal fees. Apart from costs and expenses, the difficulty in executing trades at index prices also contributes

[5] The tracking error is a measure of the variation between a fund's total return and the total return of the Underlying Index; the fund's pre-expense total returns measured on an annual basis.

to the return differences. This problem is more acute in less liquid markets, where bond prices can fluctuate greatly during the day. Notwithstanding this, most fund managers found the iBoxx ABF Indices replicable and agreed that the passive style is more cost-efficient than the active style.

VI. Market Development

76. One of the key objectives of the Initiative is for EMEAP to identify, through implementation of the ABF2 Initiative, impediments to bond market development and to leverage on the product as a catalyst to introduce regulatory and tax reforms and improvements to market infrastructure. To varying degrees, the introduction of the PAIF and the 8 Single-market Funds have stimulated regulatory and market reforms in each of these markets:

Removal of Cross-Border Regulatory Impediments

77. PAIF was Asia's first listed fund with access to eight markets. Through listing in Hong Kong, PAIF could be easily accessed by regional investors. The successful launch and smooth day-to-day operation of PAIF are regarded as an achievement in removing cross-border impediments to create a new asset class in Asia.

78. PAIF's process of portfolio construction and setting up the system for cross-border settlement in the 8 markets was a good reality check of the barriers to foreign investments. In general, the fund managers have had little difficulty in investing in the eight EMEAP markets. Most EMEAP economies are relatively open to foreign investors, with few restrictions on inward and outward remittances and currency conversion. The most common requirement for foreign investors before market entry is registration with relevant authorities. In most EMEAP markets, the authorisation of the PAIF for market access is relatively simple and quick, but a couple of markets do have cumbersome administrative procedures, which, from an investment facilitation perspective, should be simplified and streamlined.

79. For individual market-level, PAIF has served as a useful catalyst that triggers efforts to liberalise cross-border restrictions. The most notable examples are shown below:

China	• PAIF was the first foreign investor that obtained permission to invest in both exchange-traded bonds and interbank traded bonds on the Mainland. Qualified Foreign Institutional Investors (QFIIs) may only invest in exchange-traded renminbi bonds. • HSBC Shanghai branch was the first foreign bank allowed to act as the clearing agent of a foreign fund, the PAIF.
Malaysia	• By July 2004, a regulatory framework to facilitate issuance of ringgit-denominated bonds by both multilateral development banks (MDB) and multilateral financial institutions (MFI) was formalised. In terms of foreign exchange administration, the following liberalisation was introduced: (a) These issuers may hedge their foreign exchange risks by entering into a foreign exchange forward or swap arrangement of the issuance proceeds to foreign currency. (b) These issuers may hedge their interest rate risks by entering into interest rate swap transactions with onshore financial institutions. (c) Non-resident investors of these bond issues are allowed to hedge foreign exchange risks by entering into foreign exchange forward or swap arrangements with onshore financial institutions. • Since then, three institutions have successfully issued ringgit-denominated bonds, namely Asian Development Bank (RM400 million), the International Bank for Reconstruction & Development (RM760 million) and the International Finance Corporation (RM500 million).
Thailand	• The Ministry of Finance has allowed foreign governments and foreign governments' financial institutions to issue Baht bonds or debentures in Thailand in order to encourage the diversity of products in the bond market. • In 2005, permission for institutional investors in Thailand to invest abroad was further extended to include investment in ABF2 family.

Removal of Tax Barriers

80. The ABF2 Initiative has acted as a catalyst for the authorities in Malaysia and Thailand to exempt withholding tax for foreign investors. The imposition of withholding tax on foreign investors' income from ringgit-denominated bond holdings was long identified as an impediment to further bond market development in Malaysia. Through the inter-agency National Bond Market Committee (NBMC) whose membership includes Bank Negara Malaysia, the Securities Commission of Malaysia and the Ministry of Finance, a review of the possibility of tax exemption was initiated. The impending launch of ABF2 expedited the process of review to facilitate tax-neutrality. The fiscal measure by the Malaysian government to exempt withholding tax on income from investments in ringgit-denominated debt securities was announced in October 2004's budget speech by the Finance Minister, in time to benefit the ABF2 Initiative and has significantly enhanced the general attractiveness of the domestic market to international investors on the whole. Similarly, in 2005, Thailand granted withholding tax exemption to non-residents for all incomes, including interests and capital gains, arising from investment in baht-denominated sovereign and quasi-sovereign bonds.

81. There remain many tax hurdles that are highlighted in the process of implementing the ABF2 Initiative. The external tax advisor, which was hired to identify a domicile for PAIF, found that some of the eight EMEAP economies impose prohibitively high taxes on investment income, including withholding tax on interests and dividends as well as capital gains tax on trading profits. These taxes significantly lower the actual returns for investment and are hardly conducive to the development of bond markets. Moreover, they may deter foreign investors who may otherwise help to broaden the investor base of the domestic markets. Bilateral tax treaties can mitigate somewhat the high taxes but their benefits are only confined to signatories.

82. The complexity of tax codes in the region is another issue. It is common in EMEAP markets that foreign investors of different classes and domiciles are subject to different tax rates and exemptions. Therefore, it may not be easy for foreign investors to figure out which tax band they fall into under these tax regimes. It is suggested that local authorities make more efforts to educate foreign investors about their tax regimes.

Introduction of Regulatory Changes

83. The implementation of the ABF2 Initiative facilitated the introduction of new ETF regulatory frameworks in two markets and refinement of existing ETF rules in other markets. These are solid examples of where collaborative efforts by central banks/monetary authorities could catalyse reforms, particularly in areas for which central banks are not directly responsible. Specifics are as follows:

Malaysia	• Previously, there were no regulations governing ETFs. The Securities Commission enacted guidelines on ETFs in June 2005.
Thailand	• Previously, there were no regulations governing ETFs. The Securities and Exchange Commission (SEC) enacted guidelines on ETFs in July 2005. • The Bank of Thailand and the SEC allowed financial institutions under their respective supervision to appraise the risk weight of their investment in mutual fund units by looking through directly at the risk weights of the underlying assets, instead of simply adopting the risk weight equivalent to that of corporate bonds. • The Bank of Thailand also announced the eligibility of the unit of the Thailand Fund for some regulatory required reserves of commercial banks. However, the unit is not eligible as liquidity reserve since it is not permissible under the Bank of Thailand Act.
Philippines	• The Philippine Stock Exchange has started drafting the guidelines/listing rules for ETFs in the Philippines. • For Unit Investment Trust Funds, it is common for fund managers to take up the role of trustees for their funds. BsP plans to align existing regulations with international best practices by requiring the manager and trustee of future funds to be separate entities. The first fund authorised under this arrangement is the ABF Philippines Bond Index Fund.

84. There are also cases where the reality check provided by the implementation of the ABF2 funds flushed out problems as well as practices that do not offer adequate investor protection in compliance with best market practices. Where rules cannot be changed easily, EMEAP have recommended interim measures and partial solutions. Some examples:

(i) *Inadequate checks and balances between fund managers and trustees*: Trustees are the prime guardian of unit-holders' interests. In some EMEAP markets, local securities rules allow fund managers to remove trustees but not vice versa. Furthermore, unit-holders have no right to remove incompetent fund managers through shareholders' resolutions in two EMEAP markets. In such cases, the Working Group tried to address this issue of investor protection through establishing and vesting in an independent Supervisory Committee a power to convene a unit-holders' meeting to vote on the termination of the fund, which effectively means the removal of the manager.

(ii) *Unclear division of responsibilities between the fund manager and trustee*: From a risk management perspective, the role of fund managers should be confined to the management of fund assets. But in some EMEAP markets, the managers are permitted by securities regulations to take up other functions, such as valuation of assets, which is usually performed by the trustees in accordance to best practices. Valuation by the managers may give rise to conflicts of interest as the fund performance is the most important parameter in the assessment of fund managers. To ensure fair valuation of fund assets, a clause was added in the ABF2 fund documents stipulating that the valuations provided by the managers must be verified by the trustees or independent third parties.

(iii) *Inhibitions to cross-border movement of financial products and intermediaries:* This absence of mutual recognition of financial products and intermediaries among EMEAP economies has been an obstacle to financial integration in the region.

85. Clearly, further work can be done to coordinate or harmonise regulatory frameworks in Asia. A common regulatory framework like UCITS III[6] in the European Union can only be a long-term goal for the region. In the medium term, one feasible way for regulatory harmonisation will be for EMEAP securities regulators to give mutual recognition to financial products and intermediaries registered with each other under bilateral agreements.

Accounting Standards

86. Some members suggested the adoption of the International Financial Reporting Standards (IFRS) for all ABF2 funds so as to facilitate comparison of fund performance. While the Working Group recognised that there were merits in adopting common accounting standards across the funds, it was noted that this might create operational problems and adaptation issues for local fund managers and trustees. Moreover, the Working Group noted that the accounting standards of EMEAP economies were in the process of converging with IFRS, with the standards of Hong Kong and Singapore already in full convergence. After discussion, the Working Group decided that each ABF2 fund should adopt the local accounting standards of its own jurisdiction.

Adoption of International Practice

87. Observance of best international practice would likely encourage greater foreign investor participation. The PAIF-related documents such as trust deed and prospectus were carefully drafted in line with international standards and best practices. For example, the trust deed imposes limit on dealings between the PAIF and connected parties of the manager and requires such transactions to be executed on an arm's length basis, which is an international common practice. Another example is the requirement to value marketable securities at bid prices, which is in line with the latest international accounting standards.

88. The trust deed and prospectus of the PAIF served as a model in the drafting of fund

[6] The EU Directives on Undertakings for Collective Investment in Transferable Securities (UCITS) III form a common regulatory framework for open-ended funds authorised in all Member States. The UCITS Directives consist of two directives: the "Management Directive" that gives fund management companies a "passport" to operate across EU; and the "Product Directive" that allows cross-border offering of investment funds in EU.

documents for other ABF2 funds, in order to save time and speed up acceptance by all 11 EMEAP central banks and monetary authorities. Owing to differences in legal and regulatory frameworks, it was not possible for some ABF2 funds to adopt exactly the same document template as that of the PAIF. But it has been agreed that the practices incorporated in the PAIF documents should be reflected in the local documents as far as practical. In the process, the fund documentation in 8 markets has been "harmonised" to the extent possible.

Linkage between Clearing Systems

89. Settlement of debt securities is generally efficient in the eight EMEAP markets. All central securities depositories (CSDs) in the EMEAP markets have adopted the most secure settlement approach, delivery versus payment (DvP), for debt securities settlement. Most of them are also indirectly linked to international CSDs, such as Euroclear and Clearstream, through local custodian banks, thus allowing the securities under their custody to be cleared and settled overseas. The global custodian for PAIF and the eight Single-market Funds has successfully established Asia's first custodian network linking up all eight markets.

90. The ABF2 Initiative has further enhanced market infrastructure in the region by strengthening the co-operation between equities and bond clearing systems in EMEAP markets through the introduction of bond ETFs. Bond ETFs, which are listed on exchanges but conduct in-kind creations and redemptions in the bond clearing systems, require seamless interface between the equities and bonds settlement systems. In the case of Malaysia, the launch of the ABF Malaysian Bond Index Fund in July 2005 facilitated the linkage between the two systems, as it was the first time a fixed-income related product is traded on the national stock exchange. While the settlement of the fund units are facilitated by the equity settlement system operated by Bursa Malaysia, the purchase, sale and custody of underlying bonds are executed by the scripless settlement system operated by Bank Negara Malaysia for debt securities. The linkage is materially via the financial intermediaries involved and not via a system or infrastructure-based link.

Liquidity of Benchmark Indices and Price Transparency

91. Price transparency enhances market efficiency and fosters investor confidence. The structuring of the ABF2 funds as bond ETFs has indeed raised the transparency of trading, with order flows and trade information made available to participants, to the regulatory authorities and to the public. Also as the ABF2 funds are passively-managed bond index funds, transparency and representativeness of the benchmark bond indices are critical to ensure accurate valuation and replicability of the index performance.

92. The iBoxx ABF Indices made a good start but technical problems remain for the IIC to value the less liquid bonds and make the Indices more replicable. An ideal benchmark should be replicable but that is not possible as in the case of some markets, the underlying bonds are simply not available in the secondary market in part because of a preference for investors to buy-and-hold. The situation is even more acute for quasi-sovereign bonds, which unlike sovereigns, do not have a regular issuance programme of different tenors. In light of this, it is necessary for IIC to review the criteria for index constituents, including the minimum allowable sizes and study whether size thresholds have any bearing on liquidity of a bond. More market participants should also be encouraged to provide data to IIC so as to enhance the representativeness of the indices. At the same time, the IIC should improve the dissemination of index data to the

public so as to increase the awareness of investors and attract more users. The index data is now only available on the IIC website and the terminals of Bloomberg and Reuters. The IIC should take more efforts, probably with stock exchanges and local media in the EMEAP markets, to improve the release of index data to retail investors.

VII. Conclusion

93. The ABF2 Initiative is a historic milestone in central bank cooperation in Asia. For the first time, EMEAP central banks and monetary authorities set aside a small part of their foreign reserves for collective investments into local-currency bonds in Asia. The Initiative is a demonstration of EMEAP's commitment to achieve a common objective of deepening and broadening the Asian bond markets for greater financial stability and integration. The ABF2 project also involves EMEAP central banks taking part, in partnership with the private sector, in product design, execution and promotion. This approach has enabled all EMEAP central banks to gain an in-depth understanding of the market structure, regulatory systems and impediments to financial intermediation of all other EMEAP economies.

Achievements

94. The ABF2 Initiative was designed to achieve market development impact and broader investor participation through offering the PAIF and eight Single-market Funds to the public. Six funds were launched less than a year ago, and three funds will be offered. While it is too early to assess in any definitive sense the impact brought by the Initiative, we could offer some initial observations on the extent to which the development objectives set out in paragraph 7 (i) and (ii) have been achieved. Overall speaking, the ABF2 has made some inroads in broadening investor participation in the Asian bond market, but by comparison, the achievements in identifying and removing market impediments are more significant. Observations could be summarised below:

(i) **New Asset Class:** The ABF2 has successfully introduced a brand new asset class to Asia. While bond funds in Asia are actively managed with typically high management fees, ABF2 funds are passively-managed and intended to be low cost. Bond ETF is a product innovation in Asia. The low cost structure and low entry threshold for investments have laid the foundation for broader investor participation in the bond market.

(ii) **Investor Participation**: The 24% to 50% growth in asset sizes for the listed Single-market Funds is satisfactory, though growth tends to taper off after launch. Turnover of the listed funds, while bigger in some markets, are relatively low on the whole. This is consistent with the buy-and-hold mentality of bond investors. As for PAIF, while the 19% growth for PAIF falls somewhat short of expectations, it has significantly outgrown some actively managed Asian bond funds in the same period. Furthermore, since March 2006, its growth rate has picked up with various products wrapped around PAIF being offered. It is too early to gauge the impact since the concept of Asian bonds as an asset class is a new one and may take time to gain acceptance.

(iii) **Product Appeal**: According to the fund managers' observation, the low cost feature is appealing to institutional investors which are more cost conscious. They are banks, insurance companies and pension funds. For the PAIF, Japanese institutional investors have expressed interest in the product as it can allow them to gain exposures to eight Asian bond markets in one go, but there is preference for the product to be denominated in yen. To attract these Japanese institutional investors, the manager has launched in March 2006 a yen-denominated feeder fund that invests exclusively in the PAIF. The successful launch of this feeder fund suggests that the PAIF can be a good underlying asset for structured products tailored for the needs of different investors. Retail investors, on the other hand, regard the Single-market Funds as a good substitute to low-yielding fixed deposits. However, product awareness in the retail sector may be low because of a lack of monetary incentives for intermediaries to promote the product under the low-cost structure of the ABF2 funds. The fact that the ABF2 funds are the first of its kind in Asia means that more education and marketing efforts are required to raise the awareness of retail investors.

(iv) **Product Execution**: The operation of the ABF2 funds has demonstrated that passively-managed funds are viable products in Asia. The fact that the performance of ABF2 funds has tracked closely that of benchmark indices, and that the gap between listed price and NAV of the bond funds is tight, illustrate that the market infrastructure in Asia supports bond ETFs and passively-managed funds well. The introduction of the market-making arrangements has been successful in maintaining tight bid-ask spreads for listed bond funds, thus encouraging the participation of various investors.

(v) **Market Development**: The ABF2 Initiative has served as a useful catalyst that has triggered regulatory and tax reforms and market infrastructure improvements in the eight member economies. The most notable ones include:

- Accelerated tax reforms in Malaysia and Thailand where non-resident investors have been exempted from withholding tax on investment income from local currency bonds[7].

- Introduction of regulatory enhancements as in the case of Malaysia and Thailand whereby new regulations on ETFs were established to facilitate the listing of the Malaysia Fund and Thailand Fund as ETFs.

- Further liberalisation of foreign exchange administration rules in Malaysia to allow better access by foreign bond issuers or investors to hedging mechanism on foreign currency exposures of issuances and investments.

- Improved regional market infrastructure and reduction of cross-border settlement risk by establishing a custodian network covering all eight EMEAP markets. The listing of some ABF2 funds as ETFs has strengthened the linkage between bonds and equities

[7] In Thailand, the withholding tax exemption only applies to non-resident investors' holdings of government or quasi-government bonds.

clearing systems in individual EMEAP markets.

- Harmonisation of documentation as standard provisions of trust deed and prospectus of the PAIF, which are drafted in line with international best practices, were used as far as possible as model provisions for the documentation of the Single-market Funds. This has helped promote the adoption of best international practices across EMEAP markets, while allowing for regional diversity.

- Introduced an important piece of market infrastructure, the iBoxx ABF family of indices, to Asia, that can be adopted and customised by private sector investors as benchmarks for other fixed income or derivative products. These Indices are compiled by an independent index provider using a multiple pricing model. They are more transparent and impartial than proprietary indices compiled by major market players in the region.

Lessons Learnt

95. Given the intensity and scale of cooperation, it is important that we draw lessons on the process that could be instructive to future central bank cooperation. Our assessment is as follows:

(i) **Central banks can play a useful role in spearheading and coordinating regulatory reforms.** Much of the development in paragraph 94 (v) above would not have taken place in such a short period of time if not for the involvement of central banks as sponsor for the EMEAP Initiative. As bond market development does not fall squarely into the mandate of any government agency, the involvement of central banks has been particularly helpful in coordinating various government agencies to identify and remove market impediments. This is an area where the public sector can really add value, as private sector participants have little incentive to introduce market reforms without the support of public sector agencies. The involvement of the public sector in product development also means that more attention has been paid to investor protection and governance issues.

(ii) **Project-based and building-block approach** of the Initiative is highly effective in promoting bond market development. By involving directly in product design, execution and promotion, the project has enabled EMEAP to gain in-depth understanding of market impediments in the region and to derive practical solutions to address them. The experience garnered in this project would be instructive to future projects on bond market development.

(iii) **Public-private sector partnership is important in market development, especially in the development of new products.** To launch the ABF2 funds, EMEAP central banks have been working closely with the private sector (including the financial advisors, master custodian and fund managers) in the design, execution and offering of the ABF2 funds.

(iv) **Market reality and regional diversity demand flexibility from central**

banks in promoting market development. The launch of the yen-denominated Japanese feeder fund for the PAIF to attend to the home-bias of investors demonstrates the flexibility of EMEAP to address market reality in marketing the PAIF. To provide greater incentive for the intermediaries in charge of distribution, the feeder fund, unlike the PAIF, is allowed to charge investors a small amount of distribution fee. Another example of EMEAP's recognition of regional diversity is the different powers of the SCs of the ABF2 funds. In order to comply with local laws and regulations, the establishment and/or powers of the SCs vary from fund to fund.

(v) **A transparent process** in the implementation of the project is essential to ensure "buy-ins" from stakeholders, including regulators, intermediaries and investors. Initiatives undertaken by authorities are often criticised due to a lack of understanding on the part of investors. The ABF2 project strived to ensure that the public are kept updated on the progress through a series of press communications and to deepen investors' understanding in the product through ongoing investor education.

Areas for Further Work

96. ABF2 is a useful exercise that aimed at enhancing financial stability through building a more integrated regional bond market. By expanding the effective size of Asian financial markets through greater integration across jurisdictions, it can help mobilize funds within the region and promote financial and monetary stability. Going forward, EMEAP could consider adopting the approach in paragraph 97 (i) to (vi) to spearhead the reform work started by ABF2.

97. In implementing ABF2, not all market impediments were addressed and, in some cases, workarounds were employed in light of the tight timetable. Hence, there are still hurdles that have yet to be resolved. We have identified several areas where further work is necessary. It is hoped that these can shed some light on the direction of possible future reforms but should not be regarded as prescriptive measures. Specifically, these areas include:

(i) **Application of international standards in a regional context** – Standards for investor protection varies across jurisdiction, discouraging cross-border investments. A possible area for work is to achieve greater commonality in approaches among regulatory agencies in the region through the adoption of minimum international standards and international best practices. In striking a balance between regulatory convergence and regional diversity, the objective of greater financial integration through the harmonisation of prudential standards could be enhanced.

(ii) **Promotion of mutual recognition of financial products and intermediaries among EMEAP economies** – The lack of mutual recognition has posed obstacles to cross-border distribution of products and cross-border operations of intermediaries in the region. In a few markets, the registration of foreign investors for access to domestic markets has been difficult and time consuming. EMEAP regulators may consider extending recognition to products and intermediaries registered in other EMEAP jurisdictions through bilateral agreements. Cross-border recognition of products and intermediaries and cross-listings will be a long-term objective which will allow much better integration of markets and expand product developments, leading to a deeper and broader capital market in the region.

(iii) **Withholding tax and capital gains tax remain high** in a number of EMEAP economies. Relevant central banks should work with the respective tax authorities to explore the possibility of reducing or removing such taxes.

(iv) **The "buy-and-hold" preference** of Asian investors is identified as one of the main reasons behind the relatively low liquidity of Asian bonds. This issue could be hopefully ameliorated over time by encouraging a wider spectrum of participants, such as foreign investors, in the domestic bond markets. However, for the time being, the uneven state of development across jurisdictions need to be recognised and EMEAP may assist member economies in the development of repo and securities lending markets to make available the bond holdings of the "buy-and-hold" investors for borrowing by other market participants. This can facilitate the introduction of market making mechanism for bonds in the secondary market, which can further enhance liquidity and tighten the bid-ask spread of bonds. Further development of the hedging instruments through the deepening of futures and swaps markets, for example, may also encourage more market activities. At the same time, it may be useful for EMEAP to conduct in-depth study on why the "buy-and-hold" strategy is so pervasive in Asia and to review whether any regulations have encouraged such behaviour. Moreover, EMEAP regulators should encourage the adoption of "mark-to-market" accounting for bond holdings so that local institutions would have a greater incentive to manage the associated interest rate risk through trading.

(v) **Enhancement of iBoxx ABF Indices.** The criteria for inclusion of bonds into the iBoxx ABF Indices should be regularly reviewed to ensure that the Indices remain representative and replicable. The transparency in the compilation of the Indices and their determinants (e.g. the market openness scores) should be enhanced. The dissemination of the Indices in EMEAP economies should also be improved so as to raise investors' awareness of these Indices.

(vi) **Raising the transparency of Asian bond markets.** One of the factors contributing to the wide bid-ask spreads of Asian bonds is the lack of transparency in pricing. The listing of the ABF2 funds as bond ETFs has raised the transparency of trading activities in terms of pricing and turnover. In light of this experience, further efforts should be made to improve the transparency of the Asian bond markets.

98. The ABF2 project provides a fruitful example of regional co-operation in debt market development. The experience of EMEAP central banks working intensively for over 4 years

to see through this project is highly valuable in itself: EMEAP central banks have learnt from each other's experiences and managed to work comfortably and constructively as a group. We are battle-tested for future and more substantive co-operative ventures.

Annex A
EMEAP Press Statement
EMEAP central banks announce the launch of the Asian Bond Fund 2
16 December 2004

The EMEAP (Executives' Meeting of East Asia and Pacific Central Banks) Group, comprising 11 central banks and monetary authorities in the East Asia and Pacific region, is pleased to announce the launch of the second stage of the Asian Bond Fund (ABF2). Building further on the successful launch of the first stage of the Asian Bond Fund (ABF1) in June 2003, which invested in US dollar denominated bonds issued by sovereign and quasi-sovereign issuers in EMEAP economies (other than Japan, Australia and New Zealand), the ABF2 will invest in domestic currency bonds issued by sovereign and quasi-sovereign issuers in the eight EMEAP markets.

The launch of ABF2 represents a historic milestone in central banking cooperation in the region. The EMEAP Group is confident that the ABF2 Initiative will bring about significant benefits to the development of bond markets in Asia. The catalytic role that ABF2 will play in promoting new products, improving market infrastructure and minimising regulatory hurdles will help further broaden and deepen the domestic and regional bond markets and hence contribute to more efficient financial intermediation in Asia in the longer term.

The framework for ABF2, as announced by EMEAP in April 2004, comprises two components: a Pan-Asian Bond Index Fund (PAIF) and a Fund of Bond Funds (FoBF). The PAIF is a single bond fund investing in sovereign and quasi-sovereign domestic currency-denominated bonds issued in the eight EMEAP markets. The FoBF is a two-layered structure with a parent fund investing in eight Sub-funds, each of which will invest in sovereign and quasi-sovereign domestic currency-denominated bonds issued in the respective markets of the eight EMEAP economies. The PAIF and eight Sub-funds will be passively managed by private sector fund managers against a Pan-Asian bond index and relevant domestic bond indices for the eight EMEAP markets. A chart illustrating the ABF2 structure is at Annex I, and summary tables providing more details about the PAIF and FoBF Sub-funds are at Annex II.

EMEAP members' investment in the ABF2 will be around US$2 billion, with half being allocated to the PAIF and half to the FoBF. The EMEAP Group has given careful consideration to the size of its investment so that it should neither be too large that it would crowd out private sector investors nor too small that it could not benefit from economies of scale in terms of supporting the necessary infrastructure for the Funds.

The PAIF and eight Sub-funds will be confined to investment of EMEAP central banks only in Phase 1. However, the Funds will be open to investment by other investors in Phase 2. It is intended that, subject to the approval by the relevant authorities, the PAIF will be domiciled in Singapore and initially listed in Hong Kong. Additional listing of the PAIF on other EMEAP stock exchanges will be considered at a later stage having regard to the readiness of other markets and the actual practical experience during the initial period. The eight Sub-funds will be domiciled in the respective jurisdictions and, where appropriate, listed on their respective stock exchanges.

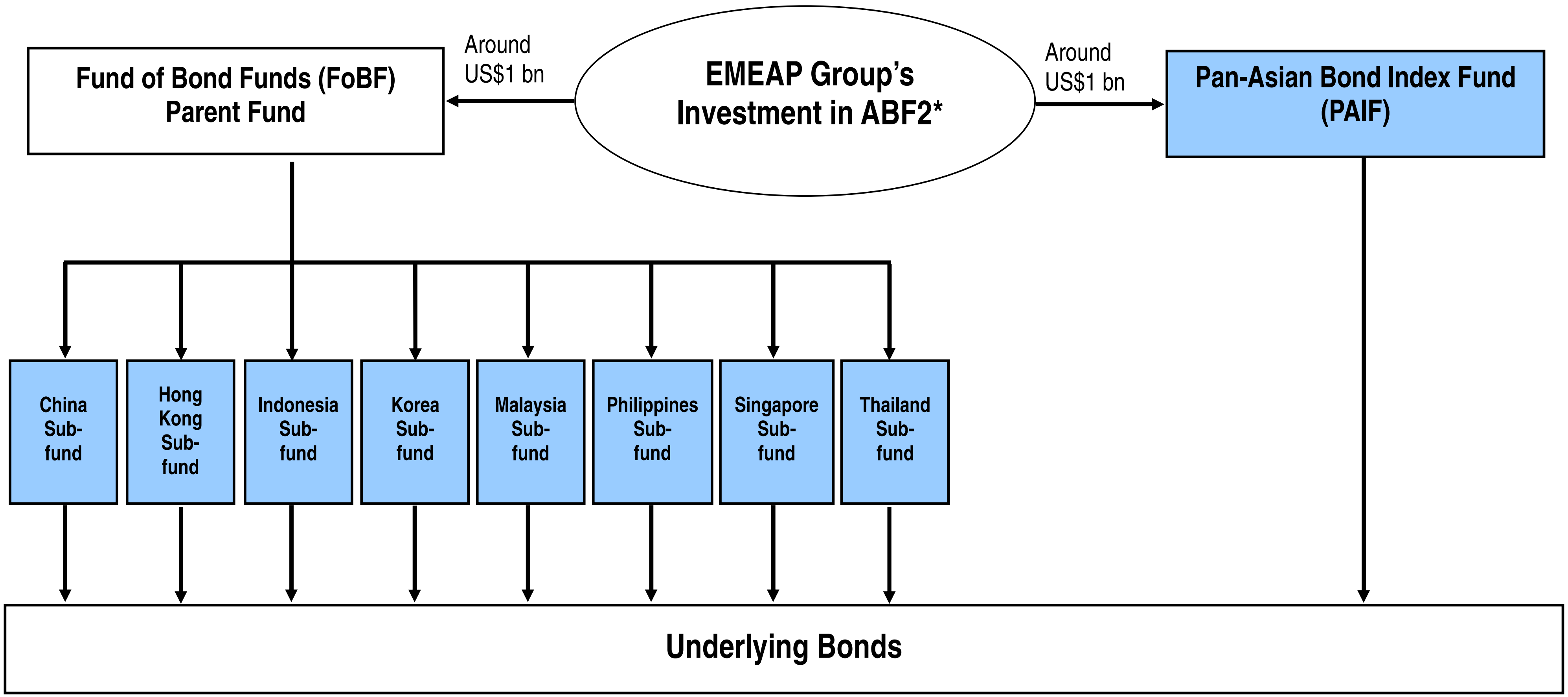
The ABF2 will help raise investor awareness and interest in Asian bonds by providing innovative, low-cost and efficient products in the form of passively managed bond funds. In addition, the ABF2 Initiative has helped accelerate market and regulatory reforms at both regional and domestic levels to the benefit of all potential issuers and investors in the region. For example, at the regional level, some EMEAP economies are currently reviewing or changing their tax and regulatory regimes to facilitate cross-border investment. At the domestic level, some economies are actively developing the relevant regulations to list exchange-traded bond funds, which are innovative and low-cost products targeting the retail as well as the institutional investor base, in their respective markets.

Annex A

Further benefits should accrue as a result of the catalytic role ABF2 will play in introducing into Asia a new set of transparent, replicable and credible bond indices, which are important market infrastructure. The EMEAP Group has been working closely with the International Index Company (formerly known as iBoxx) on a family of bond market indices drawing on price information supplied by various market participants, which enhances the impartiality and credibility of the indices. Given that the construction rules and compilation methodology will be published, these indices can easily be used, replicated or customized by private sector fund managers as benchmark indices for their fixed income products. Moreover, derivative products can also be structured around these indices.

The Bank for International Settlements (BIS) will act as the Fund Administrator for EMEAP Group's investment in ABF2. The EMEAP Group is currently in the process of finalizing the selection of fund managers, custodians and other service providers for the PAIF and the eight Sub-Funds.

ABF2 Framework



* The BIS will act as the Fund Administrator for EMEAP Group's investment in ABF2

Components that will be open to investment by other public and private sector investors

Key Features of Pan-Asian Bond Index Fund (PAIF)	
Initial Fund Size:	▪ Around US$1 billion
Fund Structure: (Updated in June 2006)	▪ Listed open-ended fund
Investors:	▪ Phase 1 : EMEAP central banks only ▪ Phase 2 : EMEAP central banks and other public and private sector investors
Qualifying Assets:	▪ Domestic currency bonds issued by sovereign and quasi-sovereign issuers in eight EMEAP economies (China, Hong Kong, Indonesia, Korea, Malaysia, Philippines, Singapore and Thailand)
Currency Denomination:	▪ US Dollar
Investment Style:	▪ Passively managed against a designated benchmark index. ▪ The fund manager is required to conduct periodic rebalancing of the portfolio when the country allocations and the constituent bonds in the benchmark index change over time.
Benchmark Index:	▪ Pan-Asia Index of the iBoxx Asian Bond Indices to be provided by International Index Company (formerly known as iBoxx).
Place of Domicile:	▪ Singapore
Place of Listing:	▪ Hong Kong Stock Exchange (additional listings on other stock exchanges will be considered at a later stage)

Annex A – Annex II

Key Features of FoBF Sub-funds	
Initial Fund Size:	▪ Around US$1 billion to be allocated to the eight FoBF Sub-funds
Phase 2 Fund Structure: (Updated in June 2006)	China Sub-fund: Exchange traded fund (ETF) or unlisted open-ended fund, where appropriate Hong Kong Sub-fund: ETF Indonesia Sub-fund: Unlisted open-ended fund Korea Sub-fund: Unlisted open-ended fund Malaysia Sub-fund: ETF Philippines Sub-fund: Unlisted open-ended fund Singapore Sub-fund: ETF Thailand Sub-fund: ETF
Investors:	▪ Phase 1 : EMEAP central banks only ▪ Phase 2 : EMEAP central banks and other public and private sector investors
Qualifying Assets:	▪ Domestic currency bonds issued by sovereign and quasi-sovereign issuers in the respective EMEAP markets
Currency Denomination:	▪ Domestic currency of the respective EMEAP markets
Investment Style:	▪ Passively managed against the respective benchmark indices. ▪ The fund managers are required to conduct periodic rebalancing of the portfolios when the constituent bonds in the benchmark indices change over time.
Benchmark Index:	▪ Respective market sub-Indices of the iBoxx Asian Bond Indices to be provided by International Index Company (formerly known as iBoxx).
Place of Domicile:	▪ Respective jurisdictions of fund investment
Place of Listing:	▪ Stock exchanges in the respective jurisdictions of fund investment, where appropriate

Annex B
EMEAP Press Statement
The Asian Bond Fund 2 has moved into Implementation Phase
12 May 2005

The EMEAP (Executives' Meeting of East Asia and Pacific Central Banks) Group, comprising 11 central banks and monetary authorities in the East Asia and Pacific region, is pleased to announce the appointment of the fund managers, master custodian and index provider and the completion of the funding of US$2 billion for the Asian Bond Fund 2 (ABF2).

As announced in December 2004, the ABF2 comprises a Pan-Asian Bond Index Fund (which is now named as ABF Pan-Asia Bond Index Fund (PAIF)) and eight Single-market Funds. The PAIF is a single bond fund investing in sovereign and quasi-sovereign local currency-denominated bonds issued in the eight EMEAP markets. The eight Single-market Funds will each invest in sovereign and quasi-sovereign local currency-denominated bonds issued in the respective EMEAP markets.

The PAIF is funded with the EMEAP Group's initial investment of US$1 billion, and State Street Global Advisors Singapore Limited (SSgA) has been appointed as the manager of the PAIF. It is intended that the PAIF will be domiciled in Singapore and initially listed on the Hong Kong Stock Exchange, subject to approval by the relevant authorities. Additional listings on other EMEAP stock exchanges will be considered at a later stage.

The EMEAP Group has allocated another US$1 billion among the eight Single-market Funds and appointed the following fund managers to manage the respective Funds:

Single-market Fund	Manager
ABF China Bond Index Fund	China Asset Management Corporation Limited
ABF Hong Kong Bond Index Fund	HSBC Investments (Hong Kong) Limited
ABF Indonesia Bond Index Fund	PT Bahana TCW Investment Management
ABF Korea Bond Index Fund	Samsung Investment Trust Management Company Limited
ABF Malaysia Bond Index Fund	AmInvestment Management Sdn. Bhd.
ABF Philippines Bond Index Fund	Bank of the Philippine Islands
ABF Singapore Bond Index Fund	DBS Asset Management Ltd
ABF Thailand Bond Index Fund	Kasikorn Asset Management Company Limited

The Hongkong and Shanghai Banking Corporation Limited has been selected as the master custodian for the PAIF and the eight Single-market Funds.

The iBoxx ABF family of indices, the benchmark indices which the nine ABF2 Funds will be closely tracking, is also launched today by the International Index Company (IIC). In constructing the iBoxx ABF Indices, IIC has been in consultation with a number of international and domestic market participants, through its Asian Index Committee and Asian Oversight Committee, as a means to help ensure credibility and market acceptance of the indices. Details of the specifications of the iBoxx ABF Indices are now publicly available[1].

From an investor's perspective, the passively managed ABF2 Funds represent low-cost and efficient vehicles for investing in local currency-denominated bonds in Asia. In the context of bond market development, the introduction of ABF2 Funds as a new asset class in Asia, together with infrastructural improvements and tax and regulatory reforms brought about by the ABF2 Initiative, will help contribute to the broadening and deepening of bond markets in the region over time.

Respective fund managers of the ABF2 Funds will be working closely with the relevant authorities to seek authorisation to offer the Funds to other public and private investors, where appropriate through listing, in the next few months. The EMEAP Group will keep the public informed of the implementation progress of the ABF2.

Note: See also Annex for background information.

1. Detailed information about the iBoxx ABF Index Family is available on the website http://www.indexco.com.

Annex

Background Information on ABF2

What is ABF2?

The Asian Bond Fund (ABF) is an initiative developed by the EMEAP Group that aims at broadening and deepening the domestic and regional bond markets in Asia. In June 2003, EMEAP launched the first stage of ABF (ABF1), which invests in a basket of US dollar denominated bonds issued by Asian sovereign and quasi-sovereign issuers in EMEAP economies (excluding Australia, Japan and New Zealand). Building on the success of ABF1, the Group has worked to extend the ABF concept to bonds denominated in local currencies and has announced the launch of the second stage of ABF (ABF2) in December 2004.

ABF2 comprises a Pan-Asian Bond Index Fund (PAIF) and eight Single-market Funds. The PAIF is a single bond fund investing in sovereign and quasi-sovereign local currency-denominated bonds issued in the eight EMEAP markets. The eight Single-market Funds will each invest in sovereign and quasi-sovereign local currency-denominated bonds issued in the respective EMEAP markets.

The launch of ABF2 represents a historic milestone in central banking cooperation in the region.

What are the benefits of ABF2?

In the near term, the ABF2 Initiative is expected to help raise investor awareness and interest in Asian bonds by providing innovative, low-cost and efficient products in the form of passively managed bond funds. Further ahead, it is believed that it serves to further broaden and deepen the domestic and regional bond markets and hence contribute to more efficient financial intermediation in Asia, specifically through the following means:

- **Promoting new products:** In many ways, the PAIF and the eight Single-market Funds represent a new asset class in Asia. For instance, as a listed passive bond fund, the PAIF will act as a convenient and cost-effective investment fund for regional and international investors who wish to have a well-diversified exposure to bond markets in the eight EMEAP markets.

- **Improving market infrastructure:** In setting up the ABF2 Funds, EMEAP has sought to improve market infrastructure in several aspects. For instance, the introduction of the iBoxx ABF indices, which are by design transparent, replicable and credible, is an important piece of market infrastructure for Asia. The indices are compiled based on prices provided by a number of active market makers, and accordingly can better reflect the prevailing market conditions for the underlying bonds.

- **Accelerating developments in relevant EMEAP markets:** The ABF2 Initiative has helped accelerate tax and regulatory reform at both regional and domestic levels to facilitate cross-border investments. For instance, the PAIF is the first foreign institutional investor that has been granted access to China's interbank bond market. Malaysia has, with effect from 1 April 2005, liberalised its foreign exchange administration rules. Earlier on, it has opened up its domestic market to issuances by multilateral development banks and multilateral financial institutions, and non-resident investors are now exempted from withholding tax on the interest income received from investment in Ringgit-denominated debt securities. Effective from 7 January 2005, Thailand has also granted non-resident investors withholding tax exemption for all income from investing in Thai government bonds and government agency bonds. Where applicable, EMEAP economies are actively developing the relevant regulations to facilitate listing of bond funds or fixed income Exchange-Traded Fund in their respective markets. Further measures are anticipated as the ABF2 Initiative is being implemented.