Harmonization of Bond Standards in ASEAN+3

- Report to the Task Force 3 of the Asian Bond Markets Initiative-

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This report is the outcome of a regional technical assistance project, RETA 6415 Harmonization of Bond Standards in ASEAN+3. The project was managed by Satoru Yamadera, Economist of Office of Regional Economic Integration. The co-authors of the report are Prof Joon-Ho Hahm, Dr. Suk Hyun, and Mr. Satoru Yamadera.

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Executive Summary

In August 2003, the ASEAN+3 finance ministers established the ASEAN+3 Asian Bond Markets Initiative (ABMI) to foster the development of a regional bond market. The ABMI intends to promote the development of domestic and regional bond markets by (i) facilitating a wide variety of issuers' access to the bond markets and (ii) removing policy and regulatory impediments to developing the markets. The ASEAN+3 countries share a consensus on the importance of fostering liquid and efficient bond markets in Asia by facilitating the harmonization of bond standards and regulations.

This report intends to show a first step to move towards the harmonization. The report proposes a dual approach towards regional harmonization of bond markets: one is a gradual and bottom-up approach focusing on the onshore secondary market, which is suitable for government bonds because local currency markets in the region have their own specific regulations and practices; and the other is a holistic and top-down approach focusing on the offshore wholesale primary corporate bond market limited to professionals.

In addition to this, the report proposes partial harmonization through common standards and mutual recognition among agreeable member states. This approach is not easy given large differences in development stages of financial markets in ASEAN+3. Besides, it may be applicable only to limited market practices and rules which share common legal backgrounds. However, ASEAN has made important steps to achieve capital market integration through setting common capital market disclosure standards for cross-border offerings of securities called ASEAN and Plus Standards Scheme. It is worth considering extension of the approach to the plus three countries.

To harmonize the bond markets, we must understand the differences across individual markets. Then, we can mitigate the differences towards more harmonized markets and establish regional standards. The process requires continuous efforts to build relationships of trust and understanding not only among the public sector but also the private sector. This report proposes to establish the Asian Bond Market Forum (ABMF) as an institutionalized framework to foster standardization of market practices and harmonization of regulations. The ABMF is expected to facilitate discussions for standardization and harmonization among experts including the private and public sectors, which are currently not possible in this region.

This report is organized as follows: Section 1, as an introduction, provides a background why we need to harmonize the markets.

Section 2 provides an analysis of available options to promote harmonization of the region's government bond markets, including benchmark studies of the government bond markets in Japan and Korea. The benchmark studies are intended to provide a model framework to be used in country studies once the ABMF has been established. This section also discusses key lessons observed from the experiences of Japan and Korea in developing more efficient and liquid secondary government bond markets. Finally, possible target areas for initial harmonization are suggested.

Section 3 proposes a strategy to establish a common corporate bond market for the region. After identifying the difficulties and problems associated with the region's cross-border corporate bond transactions, this section proposes a detailed plan to establish a common private placement market for professional market players.

Section 4 proposes a partial harmonization through setting a common standards and mutual recognition. ASEAN Capital Market Forum (ACMF) has agreed on the ASEAN and

Plus Standards Scheme to facilitate cross-border offering. In addition, ACMF's implementation plan for ASEAN Economic Community envisages mutual recognition as a core strategy. The same approach may be taken in ASEAN first, then, considered in plus three countries.

Section 5 assesses the ongoing discussions and proposals of various international forums in the wake of the global financial crisis to improve regulatory regimes and security regulations, particularly in relation to the self-regulatory organizations in capital markets.

Section 6 proposes establishment of the ABMF. The section provides organizational rationale and structure, a detailed agenda, and a roadmap of key issues to be discussed. Case studies of international and regional securities market forums are also presented in this section.

Harmonization of Bond Standards in ASEAN+3

1. Introduction

While it remains uncertain whether the worst part of the global financial meltdown that was triggered by the United States' (US) subprime crisis has passed, the East Asian economy has thus far weathered the global financial turbulence relatively well. Indeed, East Asia's limited exposure to subprime-related financial products has helped mitigate the impact of the crisis. In addition, the region's relatively fast recovery has shown that reform efforts undertaken in response to the 1997/98 Asian financial crisis have led to more resilient and healthier financial sectors than were in place a decade ago.

One of the lessons from the 1997/98 Asian financial crisis was that a financial system with multiple intermediary channels is more stable and robust in the face of large financial shocks than a system with a single intermediary channel. The absence of strong and vibrant capital markets in Asia was invariably identified as one of the major structural weaknesses that caused and exacerbated the 1997/98 crisis. Since then, repeated calls have been made to establish regional bond markets in East Asia. A more balanced financial system and well-developed bond markets can reduce the likelihood of a recurrence of financial crises in Asia by mitigating the problems of "double mismatches," namely, the mismatches in maturities and currencies in the external financing of East Asian economies. The development of regional bond markets is also expected to contribute to greater mobilization and recycling of the abundant regional savings within the region.

In response to these calls, a number of initiatives have been undertaken to develop regional bond markets in East Asia. The Executives' Meeting of East Asia–Pacific Central Banks (EMEAP) has established two Asian Bond Funds to create and expand demand for Asian bonds denominated in local currencies as well as the US dollar. The ASEAN+3 Finance Ministers' Meeting (AFMM+3) has undertaken the Asian Bond Market Initiative (ABMI) with to develop local currency denominated regional bond markets in East Asia. Since its endorsement in 2003, working groups and task forces organized under the ABMI have held a range of discussions and conducted research to highlight the major obstacles to developing regional bond markets and to identify effective strategies to overcome these obstacles.

Table 1-1: Local Currency Bonds Outstanding

(USD billion)

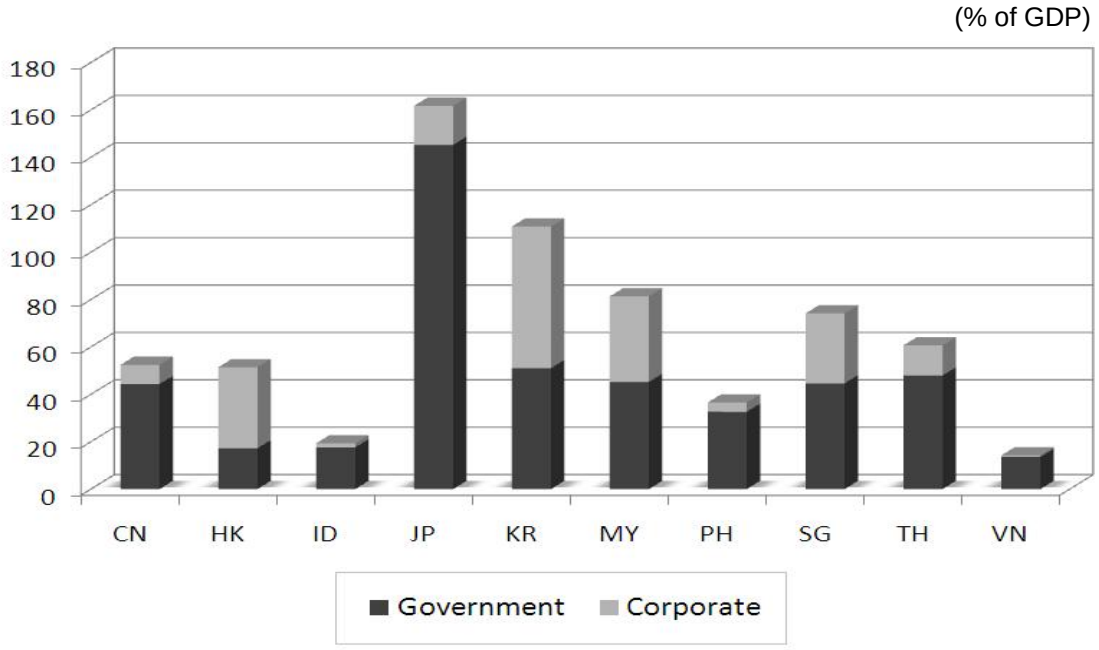
	1997	2003	2004	2005	2006	2007	2008	2009. 6
Japan	4421.9	6433.36	7456.86	7032.17	7095.56	7644.58	9511.84	9041.34
PRC	116.4	448.46	623.76	899.24	1184.12	1689.83	2213.35	2308.73
Korea, Rep. of	130.3	513.9	656.66	753.68	921.51	1026.69	816.7	901.17
Malaysia	57	93.72	96.77	106.7	123	164.3	163.24	173.64
Thailand	9.6	58.05	66.69	79.3	109.57	139.32	140.98	158.97
Indonesia	45.1	64.45	60.53	54.09	76.72	85.23	68.77	84.36
Singapore	23.8	67.16	79.92	83.12	99.39	121.81	128.79	132.68
Hong Kong, China	45.8	71.84	78.21	85.6	96.17	97.98	92.46	111.29
Philippines	18.5	30.86	36.17	42.13	47.19	58.02	56.86	57.25
Total	4868.4	7781.8	9155.57	9136.03	9753.23	11027.8	13193	12969.4

PRC = People's Republic of China. Source: Asian Bond Online.

Under such initiatives and through the efforts of individual countries, local currency denominated bond markets in the region have achieved remarkable growth in terms of size and diversity of issuers. As **Table 1-1** shows, the total volume of local currency bonds outstanding for major East Asian countries has almost tripled in size from USD4.8 trillion in 1997 to USD13 trillion in 2008. As of 2008, emerging Asia, excluding Japan, accounted for 6% of the outstanding volume in global local currency bond markets, which is more than the global share of the United Kingdom (UK), Germany, or France. Local currency bonds have been issued by various entities in East Asia, including international financial institutions and multinational corporations, as well as governments in the region.

While the recent growth of East Asian bond markets is remarkable, the region's bond markets have room to grow even more. **Figure 1-1** shows the relative size of local currency bond markets as a ratio of nominal gross domestic product (GDP). As can be seen, bond markets in many East Asian countries remain relatively small compared to those of advanced countries. Asia's continued economic development and the evolution of its financial systems, including more developed capital markets, will further enhance the growth potential of the region's bond markets.

Figure 1-1: Local Currency Bonds Outstanding as a Ratio of GDP (2009.6)



Source: Asian Bonds Online.

1.1. Asian Bond Standards: Why We Need to Harmonize Bond Standards

Along with the growth of national bond markets, the harmonization of domestic markets in East Asia and their eventual integration into a large and active regional bond market can yield several economic benefits.

First, the harmonization of segmented markets into a larger and more homogeneous market will lead to efficiency gains through the realization of economies of scale. Normally, economies of scale exist in financial market transactions. The larger and more standardized a market is, the less costly and more liquid the underlying market will be. Hence, bond market issuers can benefit from lower cost financing as harmonization will reduce the cost of transactions in both primary and secondary markets.

Second, bond market investors can also benefit from the harmonization of Asian bond markets through reduced investment costs for individual domestic market research.

Consequently, harmonization could facilitate cross-border transactions that would, in turn, accelerate integration of capital markets in the region.

Third, harmonization would also provide a superior investment frontier for both regional and global investors, bringing diversity into the market and broadening the scope of risk diversification given that countries in the region remain at different stages of economic development and possess a range of growth potential. The increase in diversity in risk preferences would also facilitate the more efficient pricing of risk.

Fourth, East Asia as a whole can better establish and utilize capital market infrastructure, including trading platforms, clearing and settlement functions, price discovery, and credit rating systems. Building adequate capital market infrastructure takes time and is often very costly. Developing and sharing harmonized market infrastructure would greatly reduce investment requirements in East Asia.

Fifth, the creation of an integrated regional bond market in East Asia can help alleviate global imbalances by better matching East Asia's vast savings with investment opportunities within the region. As shown in **Figures 1-2** and **1-3**, large current account deficits in the US have been financed by capital inflows, in particular from the foreign exchange reserve holdings of East Asia. Indeed, the current global financial crisis has highlighted the importance of creating high quality asset markets in Asia as the high propensity toward savings in many emerging market countries and the limited supply of low risk and high quality financial assets have led to excessive holdings of US treasury bonds by Asian countries, which in turn has led to a low interest rate and lax monetary environment that created asset market bubbles (see Caballero [2008] [1] and Shin [2008] [2]). The harmonization of bond markets in East Asia may not lead to an immediate expansion of the availability of lower risk and higher quality assets in Asia. However, as emphasized above, it can expand the set of investment opportunities within the region for private investors and help mitigate lopsided official foreign exchange reserve accumulation by encouraging private capital flows within East Asia.

[1] Caballero, Ricardo, Emmanuel Farhi, and Pierre-Olivier Gourinchas. 2008. An Equilibrium Model of Global Imbalances and Low Interest Rates. *American Economic Review*, Vol. 98. pp. 358-393.

[2] Shin, Hyun Song. 2008. Securitization, Subprime Mortgages and Global Imbalances. Presented at the Hong Kong Institute for Monetary Research (11).

Figure 1-2: US Current Account Deficit and Capital Flows

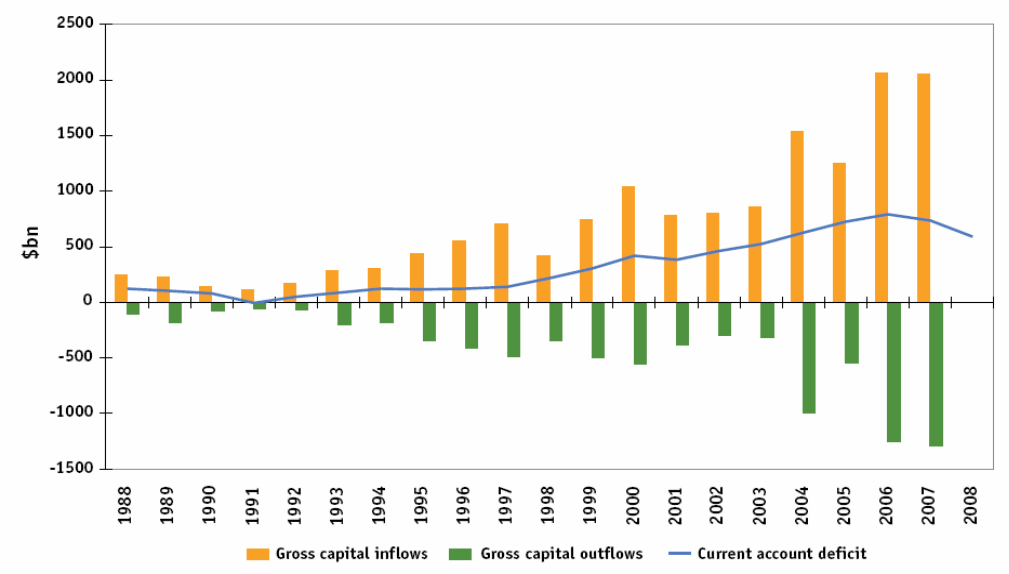
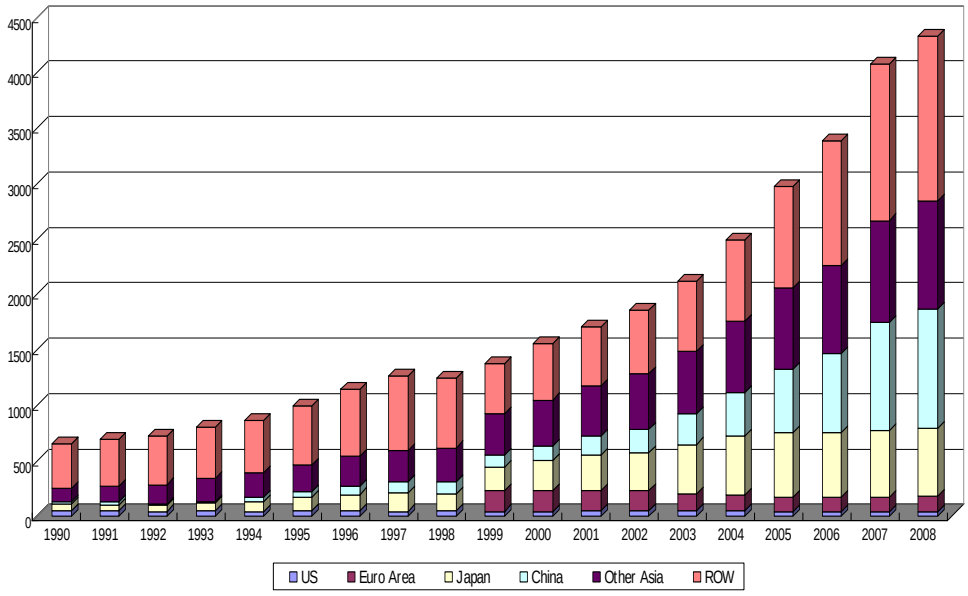


Figure 1-3: Foreign Exchange Reserve Holdings



Source: IMF, International Financial Statistics (IFS)

The harmonization of bond markets in East Asia offers the potential to mitigate the region's currency mismatch problem. From the early stage of the ABMI, the issuance of currency basket bonds, or an Asian currency unit (ACU), has been proposed as a way to overcome the currency mismatch problem. One of the ways to promote an ACU is to increase supplies of investment-quality, local currency denominated bonds so that private investors can form a portfolio basket with the currency risk diversified through a variety of local currency bonds. If local currency denominated bonds from different countries were pooled to form a currency basket bond, it would be much easier if the standards for these local bonds were harmonized. The harmonization of bond standards in Asia would also facilitate secondary market transactions and create additional liquidity in the market.

Despite the economic rationale of creating a more harmonized and integrated bond market in East Asia, several critical impediments exist. First, Asian bond markets are highly fragmented as each country has its own currency. Few cross-border, intra-regional portfolio investments occur. Unlike Europe, the absence of a common currency is a major hurdle in achieving bond market harmonization in East Asia. Second, Asian bond markets are highly lopsided with respect to volume. Outstanding bonds are concentrated in a few countries. For instance, the combined outstanding volume of bond markets in Japan, the People's Republic of China (including Hong Kong), and the Republic of Korea (Korea) accounts for almost 95% of total volume in the region. Third, East Asian countries are at heterogeneous stages of economic development. The state of development in capital market infrastructure and legal systems also differs widely across countries within the region. Furthermore, while institutional investors are developing in some Asian countries, bond markets in many countries suffer from the lack of sufficient demand as commercial banks still play a central role in financial intermediation and there is no strong and diverse institutional investor base.

The harmonization of heterogeneous bond markets in East Asia requires significant effort. While the experience of the European Union (EU) proves that differences in language and socio-political system can eventually be overcome, such differences still appear to be barriers in East Asia. Each county in the region has its own interests, values, and rationales for the differences. The harmonization of bond standards may be impossible to achieve in the short-run. However, individual East Asian countries can start learning lessons from each other and move towards an improved domestic regulatory environment. Thus, if bond markets in each country were to begin to move in the same direction towards harmonization, it would be a very important and critical message in itself. If emerging Asian markets are to play a bigger role in the global economy in the aftermath of the current global financial meltdown, they will need to demonstrate the effectiveness of their strategies to develop better-functioning capital markets. In this regard, the harmonization of Asian bond standards can play a catalytic role.

1.2. What Needs to be Harmonized and Integrated, and How?

An ideal way of developing a regional bond market in East Asia is to develop domestic bond markets in each country and harmonize these markets into an integrated market by allowing cross-border issuance and investment by foreign entities. However, as mentioned above, the bond markets of East Asian countries are highly fragmented due to different currencies and regulations. Indeed, while this approach is the most natural and desirable, it would take a very long time to achieve bond market integration if applied in East Asia. Consequently, in order to accelerate integration and create an effective regional bond market in due course, it is necessary to harmonize domestic bond markets first. More specifically, in order to encourage issuer and investor participation in the region's bond markets, it is desirable to harmonize bond standards and practices at the domestic level.

In principle, there are numerous items that need to be harmonized, which include issuing procedures, settlement process, listing and disclosure, international securities identifying numbers (ISIN), electronic disclosure, documentation, secondary market practices, syndicate rules, and accounting and auditing, among others. In addition, financial laws and regulations, taxation and foreign exchange, capital controls, and legal resolution procedures need to be reviewed to diagnose whether they are impeding the development of bond markets in the region.

However, as observed from the experience of Europe, harmonization of issuing standards and regulations across a region is an extremely challenging task because of a lack of motivation and the diverse positions of each domestic economy. For instance, Scott (2007) has investigated three approaches to harmonize bond markets in East Asia, namely, by multilateral agreement, mutual recognition, and utilization of offshore markets. The first

two approaches regard harmonization of onshore markets.[3]

First, the harmonization of standards in primary bond markets can be accomplished through an agreement of all participating countries to harmonize the regulations regarding bond issuance. This is the most ideal process of integrating primary bond markets since the approach focuses on developing and liberalizing domestic bond markets by adopting one set of rules for the primary issuance of securities. There are, however, significant problems with achieving harmonization through this approach. First, it is difficult to find an optimal level of regulation since each country is likely to adopt a rule that is close to its preference. Therefore, it is doubtful that all countries would come to a consensus on implementing a single rule that satisfies every country. Another problem with the multilateral agreement approach is that periodic updates and interpretations of the agreements are necessary, and this process would likely be daunting because achieving a mutual consensus among many countries is difficult. Indeed, the European experience demonstrates that the harmonization of regulations through multilateral agreement is extremely difficult to achieve.

Second, the harmonization of primary bond markets can be also accomplished by the participating countries entering into an agreement under which each country recognizes the bonds issued and registered in other countries the same as it recognizes its own registered bonds. In this mutual recognition system, a host country recognizes another country's rules as valid when securities are issued in the territory of the host country. The EU permits its member countries to issue securities throughout the EU under home state rules. The Multijurisdictional Disclosure System (MJDS) adopted by Canada and the US is another example. Under the MJDS, US companies can issue securities in Canada under US rules and Canadian companies can issue securities in the US under Canadian rules.[4]

This method also relies on each country's domestic market development and liberalization, which takes a relatively long time, especially if the bond markets of the participating countries are at different stages of development as is the case in East Asia. Another weakness of this approach is that issuance of securities is likely to be concentrated in the country with the lowest level of regulation as a result of forum shopping, which means that unless the issuance standards and regulations of participating countries are somewhat harmonized, it would be difficult to reach an agreement on this single passport approach.

The third approach is to achieve harmonization through offshore markets. According to this approach, issuers from different countries are allowed to issue bonds in a common international bond market without registering them in their home countries. An existing international bond market, such as the Eurobond market, can be chosen or a new international bond market can be established. Since bonds are issued in the same international market, the issuers face the same set of rules and standards. These rules and standards, as well as market conventions, can be harmonized through self-regulatory organizations. However, there are also disadvantages to this offshore market approach, including the loss in efficiency of dividing liquidity between domestic and international bond markets.

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[3] Scott, Hal S. 2007. The Development of Asian Bond Markets: The Offshore Option. *Harvard Public Law Working Paper* No.07-06.

[4] ASEAN has also made some progress in this regard. In June 2009, Malaysia, Singapore, and Thailand jointly announced the ASEAN and Plus Standards. The scheme will facilitate multi-jurisdictional offerings of plain equity and debt securities in Malaysia, Singapore, and Thailand by allowing the issuer to comply with one single set of common disclosure standards, known as the ASEAN Standards, together with limited additional requirements prescribed by each jurisdiction, known as the Plus Standards. Hence, it is a hybrid of the single rule agreement and mutual recognition approaches. The scheme reflects the desire of ASEAN securities regulators to facilitate fundraising activities within ASEAN and to enhance the visibility of ASEAN capital markets as an attractive investment destination for global investors.

What is the most appropriate approach for bond market harmonization in East Asia? In sum, this report proposes two distinct approaches across government bond and corporate bond markets. For harmonization of government bond markets, a more gradual bottom-up approach that focuses on the onshore and secondary markets is proposed. For the harmonization of corporate bond markets, a more rapid and general approach that focuses on offshore and primary markets is proposed.

No strong motive exists to harmonize regulations in primary government bond markets by compromising their own regulations and issuing standards on the part of respective sovereign issuers. Moreover, onshore markets are the main financing sources for fiscal requirements as governments prefer local currency debt to avoid foreign exchange problems and the accumulation of foreign debt. Hence, as a first step, it is ideal to begin promoting harmonization from the secondary market's standards and practices. Sufficiently detailed, comprehensive, and extensive studies are required to understand national differences in secondary government bond markets and the reasons why such differences persist before identifying ways in which to begin harmonization. Therefore, the involvement of experts is indispensable. Given heterogeneous stages of economic development and different socio-political practices, consensus building through a gradual, bottom-up approach is appropriate for the harmonization of government bond markets.

Scott (2007) concludes that it would be very difficult to integrate primary bond markets through the on-shore approach at this stage of bond market development in Asia. He notes that the European experience demonstrates that extensive measures must be taken to achieve an integrated onshore system for primary markets, including initial measures of convergence in key bond market standards and regulations, transnational institutions to formulate and implement rules, acceptance of a common language for offering documents, and effective enforcement. All four of these measures are currently absent in East Asia.[5] Hence, a more gradual approach to introducing some of these measures is inevitable for harmonization of onshore government bond markets, which is precisely the rationale of initially focusing on the secondary market in the case of government bonds.

However, a more comprehensive, offshore approach can be applied to corporate bond markets. As suggested by Scott (2007), an offshore approach does not require harmonization of the heterogeneous rules and standards of participating countries. Adopting an offshore approach with a standardized single platform, rather than onshore integration with harmonized regulations, would be more effective and realistic in creating a regional bond market in East Asia, especially in corporate bond markets. More specifically, the present report proposes the creation of an offshore market especially designed for private placement for professionals. The Asian professional offshore securities market is a private placement market targeted for professional (wholesale) market players within and outside Asia, and comprising simplified registration and listing requirements. It aims to create an Asian version of European markets where local currency denominated bonds can be issued and traded in Asia.

[5] Again, an early attempt in this regard is the ASEAN and Plus Standards among Malaysia, Singapore, and Thailand.

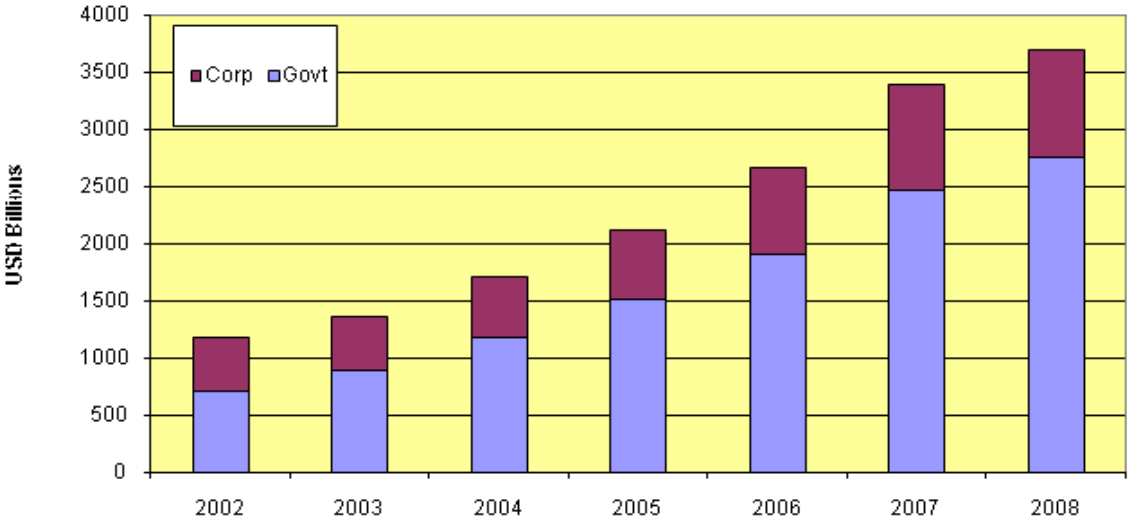
Table 1-2: Initial Strategies to Harmonize Bond Markets in East Asia

	Onshore	Offshore
Primary markets		Corporate Bonds
Secondary markets	Government Bonds	

2. Towards Harmonized and Integrated Government Bond Markets in ASEAN+3

2.1. Introduction

As discussed in the introduction, ASEAN+3 countries have reached consensus on the imperative of fostering liquid and efficient bond markets in Asia through the harmonization of bond standards and regulations. Unlike Europe, where adoption of a single currency provided key momentum for harmonization of its bond markets, East Asian countries will require more cooperative and systematic joint efforts to overcome heterogeneity across the region in the state of bond market development. Yet, the market environment for harmonization is improving in the region. As **Figure 2-4** shows, East Asia has seen relatively strong growth in local currency bond markets during the last five years. This momentum is expected to continue, especially in government bond markets as the recent global financial crisis has raised Asian authorities' funding requirements to finance



Note: The region covers People's Republic of China; Hong Kong, China; Indonesia; Republic of Korea; Malaysia; Philippines; Singapore; Thailand; and Viet Nam.

Notwithstanding the improving market environment, the harmonization of onshore government bond markets is a challenging task. In the absence of strong motives, such as a single currency or economic union, and in the absence of a transnational authority as in Europe, it is difficult to expect sovereign authorities to readily compromise their own regulations and standards in the primary government bond market.

This report has earlier emphasized that a differentiated approach is necessary for the harmonization of government bond markets and corporate bond markets. For government bond markets, a more gradual, bottom-up approach that begins promoting harmonization from secondary market standards and practices is preferred. The bottom-up approach should be predicated on an understanding of national differences in the secondary government bond markets, which requires sufficiently detailed, comprehensive, and extensive studies. In order to alleviate information asymmetry between domestic and foreign market players, it is necessary to share comprehensive, structured, and updated market information among participants. This section focuses on the bond markets of Japan and the Republic of Korea (Korea) to provide a benchmark framework for detailed analyses of

trading in secondary government bond markets and their microstructures. Key lessons from the experiences of Japan and Korea are also discussed.

2.2. Benchmark Studies of Japan and Korea

2.2.1. Government Bond Markets in Japan[6]

2.2.1.1. Government Bond Instruments

A. Types of Government Bonds and Outstanding Amounts in Japan

Japanese government bonds (JGB) comprise two main categories: general bonds and fiscal investment and loan program (FILP) bonds. The government redeems general bonds mainly through tax revenue, while redemption and interest payments on FILP bonds are paid through the recovery of loans to FILP agencies. However, both general and FILP bonds are JGBs. In addition, the Japanese government issues financing bills, which have different features from JGBs, but are among the securities issued by the government.

Table 2-3: Changes in the Outstanding Amount of JGBs, Financing Bills, and Borrowings

(Unit : billion yen)

Category	FY2004	FY2005	FY2006	FY2007	FY2008
Government Bonds (JGBs)	626,363.3	670,579.4	674,122.1	684,327.8	680,448.2
General Bonds	499,013.7	526,927.9	531,701.5	541,458.4	545,935.6
Long-term (10 years or more)	317,244.1	337,279.7	344,735.1	354,365.5	354,237.8
Medium-term (from 2 to 6 years)	135,145.6	138,271.2	145,515.9	154,574.1	161,018.3
Short-term (one year or less)	46,624.0	51,377.0	41,450.5	32,518.7	30,679.5
FILP Bonds	121,553.2	139,353.2	138,906.1	139,754.3	131,050.1
Long-term (10 years or more)	56,796.9	70,333.4	83,483.1	90,881.4	94,737.2
Medium-term (from 2 to 5 years)	64,756.3	69,019.8	55,423.0	48,872.9	36,312.9
Subsidy Bonds	337.5	361.0	568.3	577.3	526.6
Subscription / Contribution Bonds	2,110.2	2,130.0	2,356.3	2,505.7	2,210.5
Government Bonds converted from Japanese National Railways Settlement Corporation Bonds	3,348.8	1,807.2	589.9	32.1	725.4
Borrowings	59,112.2	59,273.7	59,282.4	57,158.9	57,566.1
Long-term (over one year)	7,072.1	6,059.9	5,323.5	21,844.7	22,251.9
Short-term (one year or less)	52,040.1	53,213.8	53,958.9	35,314.2	35,314.2
Financing Bills	96,076.2	97,627.4	100,974.1	107,752.8	108,482.6
Total	781,551.7	827,480.5	834,378.6	849,239.6	846,497.0

Source: Ministry of Finance of Japan. *Debt Management Report 2009*.

1) General Bonds

General bonds consist of construction bonds and special deficit-financing bonds, which are issued as new financial resources, and refunding bonds.

- Construction Bonds

Article 4(1) of the Public Finance Act prescribes that annual government expenditure has to be covered in principle by annual government revenue generated from sources other than

[6] Information in this section is largely based on *Debt Management Report 2009* of the Ministry of Finance of Japan. http://www.mof.go.jp/english/bonds/saimukanri/2009/saimu09.htm

government bonds or borrowings. But as an exception, a proviso of the article allows the government to raise money through bond issuance or borrowings for the purpose of public works, capital subscription, or lending. Bonds governed by this proviso of Article 4(1) are called construction bonds.

The article prescribes that the government can issue construction bonds within the amount approved by the Diet, with the ceiling amount provided under the general provisions of the general account budget. When seeking approval for this ceiling amount, the government is obliged to submit to the Diet for reference a redemption plan that shows the redemption amount, method, and dates for each fiscal year.

- Special Deficit-Financing Bonds

When estimating a shortage of government revenue despite the issuance of construction bonds, the government can issue bonds based on a special act to raise money for purposes other than public works and the like. Given their nature, these bonds are called special deficit- financing bonds.

As is the case with construction bonds, the government can issue special deficit-financing bonds within the amount approved by the Diet and the ceiling amount provided under the general provisions of general account budget. The government is also required to submit a redemption plan to the Diet for reference.

Special deficit-financing bond issuance can only be made in exceptional cases. Therefore, the government has to minimize the issue amount as much as possible within the amount approved by the Diet, while taking into account the state of taxes and other revenues. In this context, the government is allowed to issue special deficit-financing bonds even during the accounting adjustment term. Specifically, the government is allowed to issue special deficit-financing bonds until the end of June in the next fiscal year in order to adjust the issue amount of special deficit-financing bonds until the end of May in the next fiscal year, which is the deadline for collecting tax revenue for the fiscal year. The revenue from their issuance is reported as government revenue under the general account.

- Refunding Bonds

Refunding bonds are the JGBs issued through the Special Account of Government Debt Consolidation Fund (GDCF) to raise funds to redeem matured JGBs. Revenues from refunding bonds are directly posted to the fund.

In the issuance of refunding bonds, the government is not required to seek Diet approval for the maximum issuance amount. This is because unlike issuing new financial resource bonds (i.e., construction bonds and special deficit-financing bonds) refunding bonds do not increase the total amount of outstanding debt.

In addition, in order to mitigate the impact of a redemption rush and to enable flexible issuance in response to financial conditions, the government is also allowed to front-load the issuance of refunding bonds. However, this front-loading must be made within the maximum issuance amount stipulated in the special provisions of the special account budget.

2) Fiscal Investment and Loan Program Bonds (FILP Bonds)

Along with the 2001 reform of the FILP (Fiscal Investment and Loan Program), the government started issuance of the Fiscal Investment and Loan Program Bonds (so-called

FILP bonds) to raise funds for the investment of the Fiscal Loan Fund. As with other types of government bonds, this security is issued against the credit of the government, and its maximum issuance amount requires Diet approval (Article 62(2) of the Act on Special Accounts). Revenues from the FILP bond issuance are allotted to the annual revenue for the Special Account for the Fiscal Investment and Loan Program (FILP Special Account).

However, the FILP bonds are different from construction bonds and special deficit-financing bonds. While future taxes will be used to redeem construction bonds and special deficit-financing bonds, the redemption and the interest payments on the FILP bonds are covered through the recovery of fiscal loan funds, which are loans made to incorporated administrative agencies. Therefore, FILP bonds are not classified as debts of the general government under the System of National Accounts (SNA).

3) Financing Bills

Financing bills are issued on the basis of the Public Finance Act and the Act on Special Accounts to cover temporary shortages of cash in the National Treasury or the special accounts. Since February 2009, the Ministry of Finance has jointly issued Treasury bills (6-month and 1-year) and financing bills (2-month, 3-month, and 6-month) under unified names of Treasury discount bills (T-bills). But their legal status has not changed under the existing fiscal system and they will continue to be handled as Treasury bills and financing bills under the fiscal system.

Financing bills are issued to the market usually on the first business day of the week. If the offer to the market is not fully subscribed or there is unexpected demand for cash in the National Treasury, the Bank of Japan (BOJ) will make an exception to underwrite financing bills. In this case, financing bills underwritten by the BOJ are redeemed as quickly as possible by the cash raised through the issuance of such bills at public offer.

B. Maturities and Reopening Rule

The JGBs currently issued can be classified into six categories:

1) Short-term (6-month and 1-year),
2) Medium-term (2-year and 5-year),
3) Long-term (10-year),
4) Super long-term (15-year floating rate, 20-year, 30-year, and 40-year),
5) JGBs for retailers investors (5-year and 10-year), and
6) Inflation-indexed bond (10-year).

The short-term JGBs are all discount bonds, which means that they are issued at the price lower than face value. No interest payments are made, but at maturity the principal amounts are redeemed at face value.

All medium-, long-, and super long-term (except for 15-year floating rate) and JGBs for retail investors (5-year) are bonds with fixed-rate coupons. With fixed-rate, coupon-bearing bonds, the interest calculated by the coupon rate as determined at the time of issuance is paid on a semi-annual basis until the security matures and the principal is redeemed at face value.

The coupon rate of 15-year floating rate bonds and JGBs for retail investors (10-year) varies along with the market rate specified under the rules.

The inflation-indexed bond is a security in which the principal amount is linked to the consumer price index (CPI). Thus, although the coupon rate is fixed, the interest payment fluctuates.

In order to increase government bond liquidity, the Ministry of Finance also introduced a new immediate re-opening rule in March 2001. When a new issue has the same coupon rate and principal and interest payment dates as the existing issue, the Ministry merges the new issue into the existing one after the new issue comes into the market. Under the new rule, a re-opened issue will generate accrued interest.

Table 2-4: Types of JGBs

Maturity	Short-term	Medium-term	Long-term	Super long-term
	6-months, 1-year	2-year, 5-year	10-year	15-year floating-rate*1
Type of issue	Discount bonds	Coupon-bearing bonds		
Min. face value unit	10,000,000 yen	50,000 yen	50,000 yen	100,000 yen
Issuance method	Public offering /BOJ switch	Public offering/ OTC sales (making offerings and accepting subscriptions)	Public offering/ OTC sales (making offerings and accepting subscriptions)	Public offering
Auction method	Price-competitive auction/ Conventional-style auction	Price-competitive auction/ Conventional-style auction	Price-competitive auction/ Conventional-style auction	Price-competitive auction/ Conventional-style auction
Non-price Competitive Auction	Non-price Competitive Auction Ⅰ	Non-Competitive Auction/ Non-price Competitive Auction Ⅰ / Non-price Competitive Auction Ⅱ	Non-Competitive Auction/ Non-price Competitive Auction Ⅰ / Non-price Competitive Auction Ⅱ	Non-price Competitive Auction Ⅰ / Non-price Competitive Auction Ⅱ
Transfer	Restricted*2	Not restricted	Not restricted	Not restricted
frequency of issue (FY2009 Apr. Revision)	1-year Treasury Discount Bills: Monthly 6-monthTreasury Discount Bills: Total of 0.9 tri. yen	Monthly each	Monthly	Yearly*4

Maturity	Super-long term			JGBs for retail investors	Inflation-Indexed bonds
	20-year	30-year	40-year	10-year floating rate, 5-year fixed-rate	10-year
Type of issue	Coupon-bearing bonds				
Min. face value unit	50,000 yen	50,000 yen	50,000 yen	10,000 yen	100,000 yen
Issuance method	Public offering	Public offering	Public offering	OTC sales (making offerings and accepting subscriptions)	Public offering
Auction method	Price-competitive auction/ Conventional-style auction	Price-competitive auction/ Conventional-style auction	Yield-competitive auction/ Dutch-style auction	-	Yield-competitive auction/ Dutch-style auction
Non-price Competitive Auction	Non-price Competitive Auction Ⅰ / Non-price Competitive Auction Ⅱ	Non-price Competitive Auction Ⅰ / Non-price Competitive Auction Ⅱ	Non-price Competitive Auction Ⅱ	-	Non-price Competitive Auction Ⅱ
Transfer	Not restricted	Not restricted	Not restricted	Restricted*2	Restricted*2
frequency of issue (FY2009 Apr. Revision)	Monthly	Bimonthly*3	Quarterly*3	All quarterly	Yearly*4

*1 The reference rate for 15-year floating-rate bonds is linked to the interest rate on 10-year fixed-rate bonds (the interest rate on 10-year fixed-rate bonds minus α) and is subject to change every six months, but the spread α is determined on the auction date and remains unchanged to maturity.
*2 Short-term bonds are transferable only to corporations (including certain trustees); JGBs for retail investors are transferable only to retail investors; and Inflation-Indexed bonds are transferable only to qualified corporations.
*3 The June and August issues of and the December and February issues of the 30-year bonds will in principle be reopenings of the April and October issues, respectively.
The July, November and January issues of the 40-year bonds will in principle be reopenings of the May issues.
*4 The Issuance could be called off, taking in the market conditions.

Source: Ministry of Finance of Japan. *Debt Management Report 2009*.

C. Benchmark Issues

In Japan, 10-year bonds are the most liquid bonds. Therefore, the latest issue is regarded as the benchmark.

2.2.1.2 The Primary Market

A. Issuance

Methods of issuing JGBs are basically divided into three: offerings to the market, offerings to retail investors, and offerings to the public sector. JGBs are principally issued in public offerings to the market.

B. JGB Market Special Participants Scheme

In order to promote stable financing and to maintain and improve liquidity in the JGB market, the Ministry introduced the JGB Market Special Participants scheme in 2004. Participants in this scheme are key players in the JGB market and contribute to the planning and operation of JGB management policies with specific responsibilities and entitlements:

1) Responsibilities

- Bidding responsibility. In every auction, Special Participants shall bid for an adequate amount (at least 3% of the planned issue amount) at reasonable prices.
- Purchasing responsibility. The Special Participants shall purchase and underwrite at least a specified share of the planned total issue amount (1% in principle) in each of the super long-, long-, medium-, and short-term zones in auctions for the preceding two quarters.
- Responsibility in the secondary market. The Special Participants shall provide sufficient liquidity to the JGB secondary market.
- Information sharing. The Special Participants shall provide information on JGB markets and related transactions to the Ministry of Finance.

2) Entitlements

- Participation in the meeting of JGB Market Special Participants. The Special Participants can take part in the meeting, held as a rule on a quarterly basis, in order to exchange opinions with the Ministry on debt management policies.
- Participation in buy-back auctions. The Special Participants can take part in buy-back auctions.
- Separation and integration of strips bonds. The Special Participants can apply for the separation and integration of strips bonds.
- Participation in Non-Price Competitive Auctions. The Special Participants can take part in Non-Price Competitive Auction I (held concurrently with normal competitive auctions) and Non-Price Competitive Auction II (held after normal competitive auctions). These auctions enable Special Participants to obtain bonds at the weighed-average accepted price at a competitive price auction, up to a purchasing limit preset for each Special Participant on the basis of past accepted price (Non-Price Competitive Auction I) and past subscriptions (Non-Price Competitive Auction II).
- Participation in Auctions for Enhanced Liquidity. The Special Participants can take part in Auctions for Enhanced Liquidity that are designed to maintain and improve liquidity in the JGB market.
- Preferential participation in interest rate swap transactions. The Special Participants can be preferential counterparties for the interest rate swap transactions implemented by the Ministry of Finance.

2.2.1.3 The Secondary Market

A. Market Structure

The secondary JGB market can be divided into transactions conducted either at exchanges or over-the-counter (OTC). Currently, 2-year, 5-year, 10-year, 20-year, 30-year and 40-year fixed-rate JGBs are listed on the stock exchanges in Tokyo, Osaka, and Nagoya, but the transaction volume is very limited. In Japan, transactions in the OTC market are much more dominant.

While transactions through the exchanges are very small, brokers use a proprietary trading system platform provided by Japan Bond Trading Co., known as “Brokers’ Broker” or “BB,” for their transactions. The system conducts inter-dealer brokerage for bond trading, particularly for JGBs. The system participants are limited to professional securities dealers and bank dealers.

B. Role of Special Participants in the Secondary Market

The JGB Market Special Participants shall provide sufficient liquidity to the JGB, as described in 2.2.1.2.

C. Post-Trading Transparency and Data Dissemination

BB publishes bond prices traded on the trading platform. In particular, the prices of all marketable JGBs as of 3:00 PM are computed as BB’s JGB closing prices and released every trading day. BB provides information of bond prices traded on the BB’s trading platform through information vendors.

In the OTC market, in principle, a price is concluded through a negotiation between the parties concerned. However, in order to ensure fair and smooth OTC bond transactions, the Fair Business Practice Regulations of the Japan Securities Dealers Association (JASDA) require each securities company to maintain the fairness of the transaction by acting at a proper price according to a set of internal rules. Furthermore, to improve the price discovery function of the OTC market, JASDA publishes reference prices for OTC bond transactions on every business day, based on the reports from its member security companies and other financial institutions.

D. Secondary Market Conventions

- Day Count Convention

Actual day is used to calculate accrued interest. Specifically, the “normally actual/365” method is used.

- Settlement Cycle

Most transactions are T+3.

- Price Quotation

The price quoted between brokers is "dirty price," or "full price", which includes accrued interest. Therefore, the reference price published by BB and JASDA is full price. The price that a broker shows to a customer is the "clean price", which includes accrued interest.

- Minimum Transaction Volume

There is no minimum trading volume for OTC transactions.

2.2.1.4. Market Infrastructure for Government Bonds

A. Clearing and Settlement

In Japan, there are three ways to hold government bonds: (i) holding the physical certificate in bearer form; (ii) holding the security via the registration system operated by the BOJ in which JGB holders register their names and addresses, and the security's name and face value; (iii) holding the security via the book-entry transfer system operated by the BOJ in which holders deposit JGBs with financial institutions that re-deposit their customers' JGBs together with their own into their account at the BOJ.

Most JGB transactions are settled through the book-entry system via the BOJ-NET, which is utilized for fund settlements between private financial institutions as well as the settlement of JGBs.

In January 2001, the BOJ-NET fund settlement method was changed from the "designated-time net settlement" method to the "real-time gross settlement (RTGS)" method. At the same time, the fund settlement method for JGB deliveries also shifted to RTGS. Delivery-versus-payment (DVP) was introduced in 1994.

The introduction of RTGS has dramatically increased the number of settlements; hence, the settlement system has incorporated various devices such as fail practice, cut-off times, reversal times, and bilateral netting. In addition, in 2005, the Japan Government Bond Clearing Corporation (JGBCC) was established as the central counterparty in the JGB market. As a result, intraday exposures were reduced significantly.

B. Bond Valuation Agency

As explained at 2.2.1.3, JASDA publishes reference prices for OTC bond transactions on every business day, based on reports from its member security companies and other financial institutions. In addition, BB provides information on bond prices traded on the BB’s trading platform through information vendors.

4.2.1.5. Investors

As shown in **Table 2-5**, financial institutions, overseas investors, and the household sector have been increasing their respective shares of the JGB market, while the public sector, including the Fiscal Loan Fund and BOJ, has reduced its share of JGB holdings. The Ministry of Finance has been actively promoting investments by overseas investors and the household sector to diversify the investor base.

Table 2-5: Breakdown of JGB holders

(Unit : trillion, %)

Holders	End of FY2003		End of FY2004		End of FY2005		End of FY2006		End of FY2007		December 2008 (Provisional)	
		Share		Share		Share		Share		Share		Share
General Government (ex Public Pension)	1.4	0.2%	2.0	0.3%	7.3	1.1%	3.5	0.5%	2.5	0.4%	3.0	0.4%
Public Pension	46.8	8.2%	57.6	9.0%	61.5	9.2%	68.2	10.2%	77.8	11.2%	82.2	11.7%
Fiscal Loan Fund	53.5	9.4%	48.8	7.6%	39.4	5.9%	23.9	3.6%	10.9	1.6%	6.8	1.0%
Postal Savings	87.6	15.4%	109.7	17.1%	126.2	18.9%	140.0	20.8%	–	–	–	–
Postal Life Insurance	50.1	8.8%	55.1	8.6%	57.0	8.6%	61.0	9.1%	–	–	–	–
Bank of Japan	83.9	14.7%	92.1	14.3%	86.7	13.0%	71.0	10.6%	63.7	9.2%	58.2	8.3%
Private Financial Institutions	204.9	36.0%	218.7	34.1%	218.1	32.7%	215.8	32.1%	437.9	63.2%	448.6	64.1%
Banks	111.2	19.5%	111.6	17.4%	114.2	17.1%	101.3	15.1%	245.3	35.4%	252.7	36.1%
Life and Nonlife Insurance Companies	46.7	8.2%	54.8	8.5%	58.3	8.7%	61.8	9.2%	128.8	18.6%	133.8	19.1%
Pension Funds	19.9	3.5%	21.3	3.3%	24.0	3.6%	26.2	3.9%	26.7	3.9%	26.9	3.8%
Other Private Financial Institutions (Note1)	27.0	4.7%	31.0	4.8%	21.6	3.2%	26.5	3.9%	37.2	5.4%	35.3	5.0%
Overseas	19.6	3.5%	26.4	4.1%	30.2	4.5%	40.2	6.0%	47.3	6.8%	47.2	6.8%
Households	14.6	2.6%	21.8	3.4%	28.0	4.2%	33.4	5.0%	36.3	5.2%	36.7	5.2%
Others (Note2)	7.0	1.2%	9.6	1.5%	12.3	1.9%	15.0	2.2%	16.1	2.3%	17.0	2.4%
Total	569.5	100.0%	641.9	100.0%	666.7	100.0%	672.0	100.0%	692.4	100.0%	699.6	100.0%

Note 1 : "Other Private Financial Institutions" includes "Securities investment trusts" and "Securities Companies"
Note 2 : "Others"＝"Nonfinancial corporations"＋"Private nonprofit institutions serving households"
Note 3 : From preliminary figures of the end of FY2007, Banks, etc includes Japan Post Bank. Life and Nonlife Insurance includes Japan Post Insurance.
Note 4 : JGBs in this list doesn't include FBs. Refunding bonds include TBs.
Note 5 : The retroactive adjustment of Flow-of-Funds Statistics (BOJ) at Mar.23,2009 is reflected in figures till FY2007.

Source: Ministry of Finance. *Debt Management Report 2009*.

4.2.1.6. Related Markets

A. Repo Market

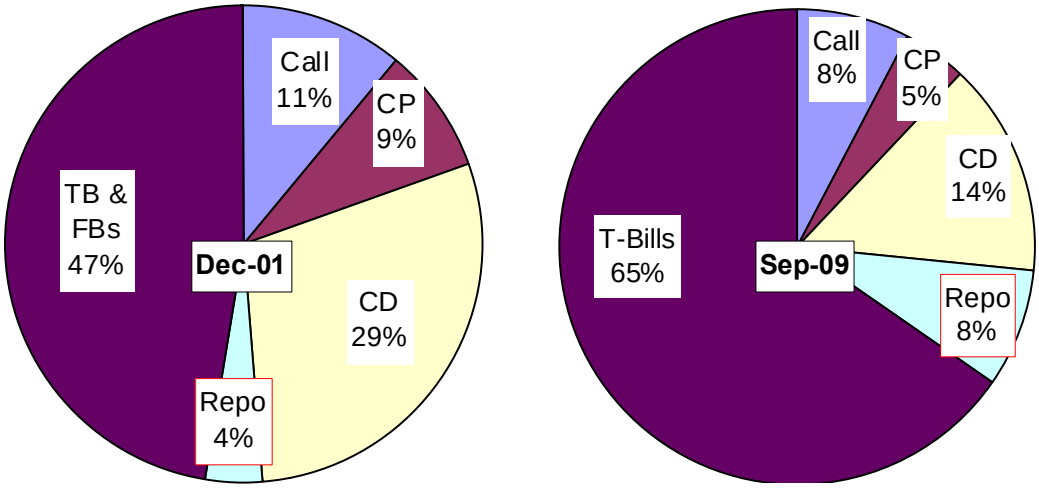
In Japan, the number of repo transactions has grown recently. The history of the repo market is relatively long as *gensaki* (repo) transactions, which are equivalent to US repo transactions, started after the Second World War as the primary market re-opened. However, as *gensaki* transactions were subject to the securities transaction tax levied on sales and purchases of securities, fundraising through the repo was limited.

The change started around 1990. In 1989, to develop the secondary bond market, bond-lending was introduced simultaneously with bond short-selling. Bond-lending is a transaction in which one party lends bonds to the other party and—after a certain period of time—receives bonds of the same type and same amount in return. Therefore, it does not constitute the sale and purchase of securities. Bond-lending was initially restricted to interest-bearing bonds to avoid competition with repurchase transactions. Furthermore, these bonds had to be secured by collateral other than cash (e.g., substitute securities), which made them administratively cumbersome. For these reasons, bond-lending was limited almost exclusively to uncollateralized transactions. However, the credit risk involved in unsecured transactions surfaced as a problem. As a result, the Ministry introduced cash-collateralized bond-lending in 1996. In 1997, the BOJ introduced the repo operation under cash-collateralized bond-lending. As a result, the volume of transactions has grown dramatically.

With abolishment of the securities transaction tax in 1999 and enhancement of credit risk mitigation, a new money market operations using the *gensaki* method was introduced to replace the cash-collateralized repo operation in November 2002.

The size of the repo (*gensaki*) market was JPY18 trillion as of September 2009. The share of the repo market is expected to increase continuously.

Figure 2-5: Share of Short-Term Money Market Instruments



Source: Bank of Japan's *Financial and Economic Statistics Monthly.*

B. Government Bond Futures

In Japan, there are four kinds of futures: 5-year, 10-year, and 20-year JGB futures, and mini 10-year JGB futures, which were introduced in March 2009 to meet the needs of a greater variety of investors and enhance the function of 10-year JGB futures. Among all four types of futures, transactions of 10-year JGB futures are dominant, making them the most liquid.

Table 2-6: Transaction Value of JGB Futures

(JPY trillion)

	Transaction Value	**Open Interest** (end of FY)
FY2003	**693.8**	**9.5**
FY2004	**829.0**	**8.9**
FY2005	**1092.9**	**16.2**
FY2006	**1180.1**	**13.6**
FY2007	**1409.0**	**12.7**
FY2008	**868.1**	**4.1**

Source: Japanese Ministry of Finance's *Debt Management Report 2009*.

Table 2-7: Features of JGB Futures

	5-year JGB Futures	10-year JGB Futures	20-year JGB Futures (*2)	mini 10-year JGB Futures
Date launched	Feb. 16, 1996	Oct. 19, 1985	Jul. 8, 1988	Mar. 23, 2009
Trading hours	9:00 - 11:00 am 12:30 - 3:00 pm 3:30 - 6:00 pm		9:00 - 11:00 am 12:30 - 3:00 pm	9:00 - 11:00 am 12:30 - 3:00 pm 3:30 - 6:00 pm
Final Settlement Method	Delivery of JGBs			Cash Settlement based on Final Settlement Price
Contract	Standardized 3%, 5-year JGB	Standardized 6%, 10-year JGB	Standardized 6%, 20-year JGB	Price of standardized 6%, 10-year JGB
Deliverable grade (*1)	Interest-bearing 5-year JGBs with 4 years or more but less than 5.25 years.	Interest-bearing 10-year JGBs with 7 years or more but less than 11 years.	Interest-bearing 20-year JGBs with 15 years or more but less than 21 years.	-
Contract month	March, June, September, December cycle (three contract months traded at any one time)			
Final Settlement day	20th of each contract month			2nd business day following the last trading day
Last trading day	7th business day prior to each delivery date. Trading for the new contract month begins on the business day following the last trading day.			8th business day prior to each delivery date of the 10-year JGB Futures for the same contract month. Trading for the new contract month begins on the business day following the last trading day of 10-year JGB Futures.
Trading unit	100 million yen face value			Multiply 100 thousand yen by the price of 10-year JGB Futures
Minimum fluctuation	1/100 point per 100 yen face value (10,000 yen per contract)			1/200 point (500 yen per contract)
Daily price limit	± 3.00 points (3 million yen per contract)		± 4.50 points (4.5 million yen per contract)	± 3.00 points (3 million yen per contract)
Circuit Brake	In cases of a 2.00 point change from the previous days' settlement price, trading will be halted for 15 min. (*3)		In cases of a 3.00 point change from the previous days' settlement price, trading will be halted for 15 min. (*3)	The circuit breaker is triggered if a circuit breaker is implemented for JGB Futures of the same contract month (*3)
Payment or Receipt as the result of offsetting	The next business day following the offsetting (T+1)			
Delivery of Bonds	The delivery of issues is at the discretion of the seller of the futures contract.			-
Cancellation Policy	TSE may apply the rules for canceling executed transactions in futures/options only when it deems that the market will be significantly disrupted due to smooth performance of settlement of executed transactions pertaining to the erroneous order being extremely difficult and/or other reasons.			

*1 The deliverable grade has to be issued at least 3 months prior to the delivery months.
*2 TSE has decided to halt trading on new contract months for 20-year JGB Futures beginning with the December 2002 contract.
*3 It's not applied after the last 25 min from the market close.

Source: Japanese Ministry of Finance's *Debt Management Report 2009*.

4.2.1.7. Participation of Foreign Investors in the Government Bond Market

A. Restrictions

The Japanese bond market is completely open to foreign investors.

B. Procedure

No procedure is required for foreigners to invest in Japan.

C. Taxation

Taxation of JGBs varies depending on the type of bonds and bondholder (e.g., resident individual, domestic corporation, domestic financial institution, nonresident individual, and foreign corporation.)

Interest on book-entry transfer of JGBs held by nonresident individuals or foreign corporations is exempt from income tax if the nonresident individual or foreign corporation satisfies certain requirements and deposits the JGBs in a transfer account with a JGB book-entry system participant in Japan or in a transfer account with a qualified foreign intermediary (QFI). The exemption is granted only for the portion of interest that corresponds to the JGB holding period. To apply withholding tax exemption measure for JGB or municipal bonds, non-residents must submit an application form to the district tax office of each issuer through the account management institution in advance.

More specific tax treatment for nonresident and foreign corporation is as follows:

- Coupon-Bearing Bonds

Interest income from coupon-bearing bonds held by nonresident individuals or foreign corporations is generally subject to a 15% withholding tax.

If a tax treaty is signed between Japan and the country where a non-resident resides or a foreign corporation is located, and the tax applicable to interest payments is lower than 15%, then tax will be withheld at the lower rate, subject to certain procedures. Furthermore, interest on book-entry transfer JGBs can be tax free.

- Treasury Discount Bills

Only corporations may hold Treasury discount bills. Therefore, redemption profits arising from these bills held by foreign corporations are not subject to withholding tax at the time of issuance. In addition, foreign corporations without a permanent establishment in Japan are further exempt from corporate tax.

- Strips bonds

Only corporations may hold STRIPS. Therefore, corporations, including foreign corporations, are subject to corporate tax on the income from holding or transfer of strips bonds. However, foreign corporations without a permanent establishment in Japan will be exempt from tax, provided that they hold the strips bonds in transfer accounts with JGB book-entry system participants in Japan or with QFIs.

- Repo (*Gensaki*) Transactions by Foreign Financial Institutions

Foreign financial institutions, foreign central banks, and international organizations are exempt from tax on loan interest from repo transactions if the counterparties are (i) financial institutions and financial instruments firms in Japan that are subject to the provisions of the Act on Collective Liquidation of Specified Transaction Conducted by Financial Institutions or (ii) the BOJ, provided that certain requirements have been met.

2.2.2. Government Bond Markets in Korea

2.2.2.1. Government Bond Instruments

A. Types and Outstanding Amounts

Government bonds in Korea consist of Korea Treasury bonds, Treasury bills, and National Housing bonds. Korea Treasury bonds (KTBs) are typical bonds that the Korean government issues to raise funds for public projects or to redeem outstanding KTBs. Treasury bills are issued to finance temporary shortages in the government's cash flow. There are no Treasury bills currently outstanding. National Housing bonds are issued to finance the National Housing Fund that was established to expand the supply of affordable housing. All National Housing bonds are issued on a compulsory underwriting basis.

Until 1996, the size of Korea's government bond market remained negligible as the issuance of government bonds was limited due to the government's policy priority of maintaining healthy budget balances. During this period, government bonds were issued on a compulsory underwriting basis. However, the need to restructure the ailing financial and corporate sectors of the economy in the aftermath of the 1997/98 Asian financial crisis brought about sizable budget deficits that had to be financed through government bond issuance. Consequently, the size of the government bond market in Korea grew rapidly.

Table 2-8 shows the time trend of the size of bond markets in Korea. The total outstanding amount of government bonds, which stood at KRW82.9 trillion, or 12.7% of GDP, at the end of 2001, nearly quadrupled to a record KRW308.3 trillion, or 30.1% of GDP, as of May 2009. Government bonds mainly comprise KTBs, which accounted for almost 85% of total government bonds outstanding as of May 2009.

Table 2-8: Total Outstanding Amount of Listed Bonds

(KRW billion)

	Public	Government	Corporate	Other	Total
1996	102,419	25,657	73,120	76,763	175,540
1997	138,092	28,554	86,024	109,539	224,117
1998	214,600	41,584	119,435	173,015	334,034
1999	253,298	61,180	111,121	192,118	364,419
2000	296,806	71,237	127,878	225,569	424,684
2001	363,506	82,892	141,224	280,614	504,730
2002	353,768	99,038	210,175	254,730	563,944
2003	402,471	136,927	203,582	265,544	606,053
2004	483,331	178,924	176,428	304,407	659,760
2005	552,110	223,182	168,046	328,928	720,156
2006	592,561	257,891	185,202	334,670	777,763
2007	621,076	274,860	207,454	346,216	828,530
2008	635,697	285,032	228,407	350,665	864,104
2009.5	717,736	308,349	248,128	409,387	965,864

Source: *Securities Monthly,* Financial Supervisory Commission of Korea.

B. Maturities, Coupon Payments and Fungibility

KTBs are issued with a range of maturities covering 3, 5, 7, 10, and 20 years.[7] In addition, inflation-indexed KTBs with a 10-year maturity have been issued since 2007. Except for inflation-indexed KTBs, all KTBs are fixed-rate coupon bonds paying interests every 6 months. Inflation-indexed KTBs pay interests that are adjusted based on the CPI inflation rate. The minimum face value for all government bonds is set at KRW10,000.

All KTBs are issued as fungible issues. The re-opening system for fungible issues was introduced in order to increase liquidity in the secondary market for KTBs. Fungible KTBs are issued by unifying the issuing date and the coupon rate at intervals of 6 months and 1 year. **Table 2-9** shows the current schedule of the re-opening system. All government bonds issued are registered at the Korea Securities Depository (KSD) and listed on the Korea Exchange.

Table 2-9: Reopening System

Maturity	Period		Issuing Date
3-year	6 Months	/ June-November, December-May	June 10, Dec. 10
5-year	6 Months	/ March-August, September-February	March 10, Sept. 10
10-year	1 Year	/ June-May	June.10
20-year	1 Year	/ December-November	Dec.10

Note: Starting from 2009, the issuing months for 10- and 20-year KTBs have been changed from September to June and from March to December, respectively.
Source: *A Guide to the Bond Markets in Korea,* Korea Exchange, 2005.

Table 2-10: Types of KTBs

Maturity	Medium-term	Long-term	Super-long-term	Inflation-indexed Bonds
	3-and 5-years	7-and 10-years	20-years	10-years
Type of issue	Coupon bond Fixed rate	Coupon bond Fixed rate	Coupon bond Fixed rate	Coupon bond Inflation indexed
Minimum Face value unit	10,000 KRW	10,000 KRW	10,000 KRW	10,000 KRW
Issuance Method	Auction	Auction	Auction	Auction Underwriting
Auction Method	Dutch	Dutch	Dutch	Dutch
Registered or Bearer Form	Registered	Registered	Registered	Registered

Source: *A Guide to the Bond Markets in Korea,* Korea Exchange, 2005.

C. Benchmark Issues

Currently, bond market participants use the on-the-run issue of the 3-year KTB as the benchmark issue. However, the government is making efforts to lengthen the maturity of the benchmark issue to 5 years.

[7] There are no 7-year KTBs currently outstanding.

2.2.2.2. The Primary Market

A. Issuance

In principle, KTBs are issued through a Dutch auction system. However, when new types of bonds are first issued (e.g., inflation-indexed KTBs and 20-year KTBs), an underwriting system is used as well. All the operational tasks related to issuance, redemption, and interest payment of KTBs are administered by the Bank of Korea (BOK). The KTB auction is performed through the electronic bidding system operated by the BOK-Wire. Only primary dealers are allowed to participate directly in the bidding for KTBs in the primary market.

B. The KTB Primary Dealer System

The KTB Primary Dealer System was first introduced in 1999. Primary dealers (PDs) are elected by the Minister of Strategy and Finance each year. As of the end of May 2009, there were 19 PDs (12 securities firms, and 7 banks) with exclusive privileges to participate in the auction for KTBs or in the syndicate to underwrite KTBs in the primary market. Because of this, PDs are required to fulfill the following obligations, including market making in the secondary market:

1) Obligations in the Primary Market

- PDs are required to underwrite at least 6% of the total issuing amount of each benchmark issue. One hundred percent of the self-underwriting and 50% of the customer account underwriting is counted as the underwriting volume of a primary dealer.

2) Obligations in the Secondary Market

- PDs are required to place and keep bid and ask quotations in the Korea Exchange (KRX) government bond market for at least two thirds of each day's trading hours and 60% of the total trading days in a year.
- PDs are required to make at least 50% of their total transactions of government bonds in the KRX government bond market.
- PDs were previously been required to make all of their transactions of benchmark issues of government bonds in the KRX government bond market. This obligation, however, was eliminated in July 2008.

2.2.2.3. The Secondary Market and Price Discovery System

A. Market Structure

The secondary market for government bonds in Korea consists of two markets: the OTC market and the KRX government bond market. The OTC market refers to a market where transactions are made through bilateral negotiations using telephones or computers. Trading in the OTC market is conducted mainly through securities firms and inter-dealer brokers (IDBs). Securities firms with sell or buy orders from customers execute the orders by locating the counter-side orders. Traders seek and exchange information using the internet messenger or over the telephone. If both sides of traders agree on the trading details, the trading parties concerned confirm the trading over the telephone. In order to facilitate trading

in the OTC market, the inter-dealer broker system has been introduced in 2000. There are two licensed inter-dealer brokers currently in operation: Korea Money Broker and Korea Inter-Dealer Broker. The volume of trading through inter-dealer brokers, however, is all but negligible.

The KRX government bond market is an organized exchange operated by KRX. The KRX market was initially set up exclusively as an inter-dealer market for trading among government bond dealers. Later, brokered trading through securities companies was also allowed. All government bond dealers including the primary dealers are allowed to participate in the KRX market. The KRX government bond market is based on an electronic trading system—the KRX Bond Trading System (KTS). It is a competitive bidding system in which trades are executed by centrally matching the bid and ask orders placed by eligible participants. Thus, the KRX market is an order-driven market. Bonds eligible for trading in the KRX market include KTBs, monetary stabilization bonds (MSB) issued by the BOK, and deposit insurance fund bonds (DIFB) issued by the Korea Deposit Insurance Corporation. The minimum transaction volume in the KRX market is KRW1 billion (approximately USD850,000).

In addition to the government bond market, the KRX operates the KRX ordinary bond market, where convertible corporate bonds, bond warrants, and government bonds (in small amounts) are traded through the electronic trading system. Unlike the government bond market, the participation of individual investors is also allowed.

Table 2-11: Comparison of the KRX and OTC Markets

Class	KTS	OTC
Trading Form	The KRX trading system executes trading between Primary Dealers and financial institutions	Securities firms receive customer orders and act as broker/dealers
Bonds eligible for trading	Among the listed bonds - KTBs - Monetary Stabilization Bonds - Deposit Insurance Fund Bonds	All listed and non-listed bonds
Trading method	Competitive cross-matching (automatic trading system)	Negotiated trades (messenger, phone trades)
Trading time	09:00–15:00	No restriction, but normally during 08:30 ~ 15:30
Trading place	KRX bond market	Bond trading of operations department in Securities firm
Quotation method	Price quotations (with yield)	Yield quotations (with price)
Trading unit	Par value 1 billon won	No limit (usually 10 billion won between institutions)

KTS = KRX Bond Trading System, KRX = Korea Exchange, OTC = over-the-counter.
Source: *A Guide to the Bond Markets in Korea,* Korea Exchange, 2005.

Table 2-12: Trading Volume of KTBs
(KRW trillion)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008
KRX (share,%)	21.6 (7.9)	10.1 (2.2)	42.6 (11.0)	207.9 (31.4)	358.4 (33.5)	337.7 (31.6)	267.4 (28.2)	316.6 (35.7)	321.1 (34.7)
OTC	251.3	443.1	343.2	453.9	707.8	729.3	660.1	570.5	603.0
Total	272.9	453.2	385.8	661.8	1,066.2	1,067.0	927.5	887.1	924.1

KRX = Korea Exchange, OTC = over-the-counter.
Source: *Securities Monthly,* Financial Supervisory Commission of Korea.

Table 2-12 shows the annual trading volume of KTBs in the OTC and KRX markets. As can be seen, most of the secondary market transactions used to be conducted through the OTC market. However, the share of the KRX government bond market has grown rapidly since 2002 when market-making obligations were imposed on KTB primary dealers. Currently, about two thirds of all KTB secondary market transactions are conducted through the OTC market.

B. The Role of Primary Dealers in the Secondary Market

Primary dealers are required to perform certain market-making obligations in the OTC market as well as in the KRX market. The obligations of PDs in the KRX government bond market were described above. In addition to these obligations, the trading volume of each PD's KTBs in both the OTC and the KRX markets should exceed 5% of the total secondary market trading volume of all KTBs.

C. Post-Trading Transparency and Data Dissemination

1) Reporting Duties of the Dealers

In order to facilitate price discovery and enhance post-trading transparency in the OTC market, the Korean government introduced the Bond Trade Report and Information System in 2000. Under this system, licensed bond dealers are required to report the specifics of each transaction to the Korea Financial Investment Association (KOFIA) through computer terminals within 15 minutes after the transaction has been conducted. KOFIA is then required to post the trading details. Since the regulation allows exceptions to the 15-minute reporting requirement, however, a number of transactions in the OTC market are reported after 3:00 PM even if the transactions were conducted between 9:00 AM and 3:00 PM.

2) Collection and Reporting of the Transactions Data

The transactions data, including the price and the trading volume in the KRX government bond market, are available on a real time basis to eligible participants. For transactions in the OTC market, KOFIA collects trading data reported by licensed bond dealers and reports them on the website on a real time basis. The trading data are also provided to various data vendors.

D. Secondary Market Conventions

- Day Count Convention

Actual number of elapsed days (Actual/Actual) is used to calculate the amount of accrued interest.

- Settlement Cycle

The settlement cycle in the KRX market is set to be T+1, with an exception of T+2 when the settlement day coincides with the reserve maintenance closing day. There is no rule for the settlement cycle in the OTC market. However, by market convention, transactions are settled on T+1.

- Price Quotation

The KRX Government Bond Market uses price quotation. The price quotes are made in units of KRX1 for the face value of KRW10,000. All price quotes are "dirty price".[8] In the OTC market, prices are quoted in terms of yields-to-maturity, which are quoted in decimal points rather than fractions.

- Minimum Transaction Volume

There is no regulation about the minimum trading volume in the OTC market. Major market participants, however, use KRW10 billion (approximately USD8.5 million) as the minimum trading unit. The minimum trading volume in the KRX government bond market is KRW1 billion.

2.2.2.4. Market Infrastructure for Government Bonds

A. Clearing and Settlement

The Securities and Exchange Act is the basic law governing bond issuance, trading, clearance, settlement and access to systems and risk control arrangements. Practical operation of the Act is delegated to self-regulatory organizations and settlements system operators, such as KRX through its Stock Market Division, KOFIA, and KSD. Under the Act, KSD is given the sole right of settling securities on a book-entry transfer basis.

Transactions of bonds through the OTC market are settled by the KSD either on a delivery-versus-payment or on a free-of-payment delivery basis. The delivery-versus-payment system functions on a direct link between the securities settlement system of the KSD and the BOK-Wire. This allows real time and simultaneous settlement on a gross trade-by-trade basis. Under the free-of-payment delivery scheme, the securities leg is settled through the KSD book-entry and the cash leg through the BOK or commercial banks. The structure of the bond clearing and settlement system in Korea is provided in **Table 2-13**.

The KSD plays a major role in the clearing and settlement of bond transactions. The KSD's major services include centralized deposit of securities, book-entry transfer, cross-border clearing and settlement, and custody. Bond trades in the KRX market are cleared by the KRX on the multilateral netting basis. In this process, the KRX acts as the central counterparty, with bond trades settled by the KSD on the delivery-versus-payment basis.

[8] "Dirty price" includes accrued interest while "clean price" does not.

Table 2-13: Clearing and Settlement System

Market	KTS	OTC
Settlement Method	- T+1 (one day after the trade) - T+2 (if the trading day is the reserve maintenance closing day) - Multi-netting and centralized settlement method	- Within 30 days (usually on T+1) - Settled by total amount per trade
Settlement System	- In the case of the buyer, cash transfer precedes the delivery of bonds - In the case of the seller, bond delivery precedes cash transfer - The exchange acts as the central counterparty	- Delivery-versus-payment between trading parties - Trading among trading parties

B. Bond Valuation Agency

Just like stock prices, bond prices change every day. Accordingly, collective investment schemes and financial institutions that evaluate their assets on a mark-to-market basis need to calculate the values of the bonds they hold. When available, the market price can be used as the value of a bond. When the market price is not available, however, a fair value has to be calculated. In order to ensure transparency and credibility in the operation of collective investment schemes, and to improve the asset quality of financial institutions, the Korean government introduced a bond valuation (pricing) system in November 1998. Under the system, collective investment schemes and financial institutions must use the values of securities calculated by the licensed bond valuation agencies. Currently, three licensed private bond valuation agencies are in operation providing pricing information for about 15,000 bonds and equity-linked securities.

2.2.2.5. Investors

Table 2-14 shows the profile of KTB investors as of end-2008. While the holdings of banks and asset management firms have decreased over time, those of long-term investors (e.g., pension funds and insurance firms) have increased. Currently, banks and pension funds are the largest investors in KTBs with a combined share of 72.4% of all KTBs outstanding. Insurance companies and securities firms are the next largest investors.

The share of foreigners in domestic bond holdings grew only marginally from 0.29% in 1998 to 0.59% in 2006. Starting from 2007, however, foreign investment in domestic bonds grew rapidly. In 2007 alone, the amount of foreigners' domestic bond holdings rose almost eightfold to approximately KRW37 trillion. As a result, the share of foreigners' holdings at the end of 2007 jumped to 4.44%. The sudden increase in domestic bond investment by foreigners can be explained by the arbitrage opportunities created by the sharp increase in dollar supply in the forward exchange market in Korea.

Compared to foreign participation in the domestic stock market, foreign participation in the domestic bond market still remains weak. As of the end of April 2009, the share of foreign holdings of domestic bonds stood at 3.85%, while that of domestic stocks stood at 28.0%.

Table 2-14: Breakdown of KTB Investors

Year	Banks	Pension Funds	Insurance	Securities Firms	Asset Management	Others
1999	50.8%	10.1%	1.1%	6.4%	27.9%	3.7%
2000	53.7%	6.5%	2.9%	6.1%	27.6%	3.3%
2001	50.7%	8.3%	7.0%	6.7%	24.1%	3.2%
2002	43.8%	19.0%	14.3%	5.9%	14.8%	2.2%
2003	36.3%	25.6%	15.4%	6.6%	14.2%	1.9%
2004	31.3%	30.0%	14.3%	5.9%	16.4%	2.1%
2005	33.0%	33.4%	15.5%	6.3%	10.3%	1.6%
2006	36.5%	31.1%	16.5%	5.6%	9.0%	1.3%
2007	45.9%	26.9%	16.2%	5.2%	4.7%	1.1%
2008	43.4%	29.0%	15.5%	7.2%	3.7%	1.3%

KTB = Korean Treasury bonds.
Source: *Securities Monthly,* Financial Supervisory Commission of Korea.

2.2.2.6. Related Markets

A. Repo Market

Repo refers to the sale (or purchase) of bonds with a commitment to repurchase (or resell) them at a specific future date. Repo transactions in Korea comprise retail repo (transaction between retail investors and financial institutions) and inter-institution repo. Inter-institution repos can be traded over-the-counter. In order to facilitate repo transactions among institutional investors, the KRX established a repo market based in February 2002 on an electronic trading platform.

The size of the domestic repo market is about KRW62.4 trillion as of the end of April 2009 with the retail repo taking up 98% of total transactions. The main reason why the inter-institution repo market is not very active is the wide use of the call market—the interbank loan market in Korea. Unlike the US and other countries where only qualified institutions such as commercial banks are allowed to participate in the federal funds market, a wide variety of institutions—commercial banks, brokerage firms, insurance companies, and some government enterprises—are allowed to participate in the call market in Korea. As a result, the institutions that have access to the call market do not need to find it necessary to use the repo market.

B. KTB Futures Market

The KTB futures market was launched in the KRX in 1999 to provide investors with the tools of risk management against the volatility of market interest rates. Currently, three kinds of KTB futures—3-year, 5-year, and 10-year—and MSB interest rate futures are listed on the KRX. Only those financial companies that have obtained a license to engage in the financial investment business for exchange-traded derivatives in accordance with the Capital Market Act can participate in the KTB futures market. Other financial institutions, nonfinancial firms, and individuals can participate in the KTB futures market by consigning their trading to member firms. The member firms serve their clients in a fiduciary capacity by placing orders for the customers. Investors in KTB futures are subject to various margin

requirements including the prior margin, net risk margin, and the maintenance margin. Margins can be paid with the Korean won, substitute securities, or foreign currencies.

Table 2-15 shows trends in the trading activities of KTB futures in terms of the annual trading value. The trading of 3-year KTB futures dominates trading in the KTB futures market as the 3-year KTB plays the role of the benchmark issue in the KTB cash market.

Table 2-15: KTB Futures Trading Value
(KRW billion)

	3 Year-KTB	5 Year-KTB	10 Year-KTB	Total
2001	981,176	-	-	981,176
2002	1,342,955	-	-	1,342,955
2003	1,124,052	19,497	-	1,143,550
2004	813,023	7	-	813,030
2005	1,234,152	66	-	1,234,218
2006	1,122,370	375	-	1,122,745
2007	1,455,094	11	-	1,455,105
2008	1,702,638	-	454	1,703,092
2009	1,655,906	-	-	1,655,906

KTB = Korean Treasury bonds.
Note: Year 2009 value covers from January to September.

Source: Korea Exchange homepage

2.2.2.7. Participation of Foreign Investors in the Government Bond Market

A. Restrictions

In principle, foreign investors have been able to freely invest in Korean domestic bonds since 1998. The acquisition of Korean won to purchase domestic bonds, conversion of the won into foreign currencies, and repatriation of the interest and the principal are allowed. However, the funding of the Korean won by foreigners through borrowing, repo, or security lending is subject to the ceiling of KRW30 billion to prevent speculative attack on the won.

To make investments, foreign investors are required to have a foreign investor identification number and their own account at designated financial institutions to settle transactions. In addition, OTC transactions of listed bonds between foreigners are prohibited. As a result, foreign investors must trade listed bonds with Korean brokers as an OTC counterpart.

In 2007, however, the Korean government decided to allow omnibus accounts of Euroclear and Clearstream at the KSD for Korean government bond and MSB transactions. This enabled foreign investors to trade through the omnibus accounts without needing a foreign investor identification number or their own accounts. Also, it allows direct OTC transactions among themselves.

B. Procedure

By the Korean financial supervisory regulation, foreigners who want to invest in listed securities in Korea must register with the Financial Supervisory Service, obtain a foreign investor identification number, and open individual bank accounts with the identification number they acquired. Since foreign investors in general reside outside of Korea, they usually have to appoint a representative agent to process foreign investor registration and open bank accounts. It usually takes 3–4 days to complete the registration process.

C. Taxation

Korea withholds tax on interest income as a rule. Including the inhabitant tax surcharge, the withholding tax rate currently is set at 15.4%. Beginning in January 2009, however, Korea exempted qualified non-resident investors from withholding tax on interest income earned from all government bonds and MSBs. In order to qualify for the withholding tax exemption, non-residents should hold Korean domestic bonds through local custodians that have acquired qualified financial Intermediary (QFI) status. This restriction was introduced to prevent domestic residents from evading interest income tax by posing as a non-resident. In order to qualify as a QFI, a financial institution is required to assess the customer adequacy of non-resident investors for tax exemption and keep track of the bond transaction and holding records of non-resident investors so that they can report to Korea's National Tax Service when demanded.

Withholding tax is also charged on capital gains. Sales of fixed income securities between a non-resident and a resident are subject to a capital gains tax. For such trades a capital gains tax is levied regardless of whether the bond is traded on the exchange or over-the-counter. Sales of fixed income securities between two non-residents are exempt from the capital gains tax. For exchange transactions, non-resident investors are exempt from capital gains tax on listed securities, regardless of the period of time they have held the security.

For transactions executed on the OTC market, non-resident investors are taxed at 11% (or the treaty rate) of the sale proceeds or 22% of the capital gains, net of transaction charges, whichever is lower. These rates include the 10% inhabitant's tax surcharge. Thus, the effective rate of capital gains tax is between 11% and 22%. Whenever a bond transaction is made, the selling party broker needs to calculate and withhold the CGT. The tax deduction is included in the net price of the transaction.

Korea operates a "pro-rata temporis" system. The amount of tax (both interest and capital gains) will depend on the time period the seller has held the bond.

The rates of withholding tax (on interest and capital gains) may be reduced under applicable double taxation agreements, provided that appropriate documentation is submitted. Certain double taxation agreements may also eliminate the 10% inhabitant's tax surcharge. The tax domicile of the investor is established during the investor registration process. Double tax treaties are in place with 70 countries. There is no officially recognized tax reclaim procedure. Taxes can be reclaimed on a case-by-case basis, although the reclaim is not always guaranteed.

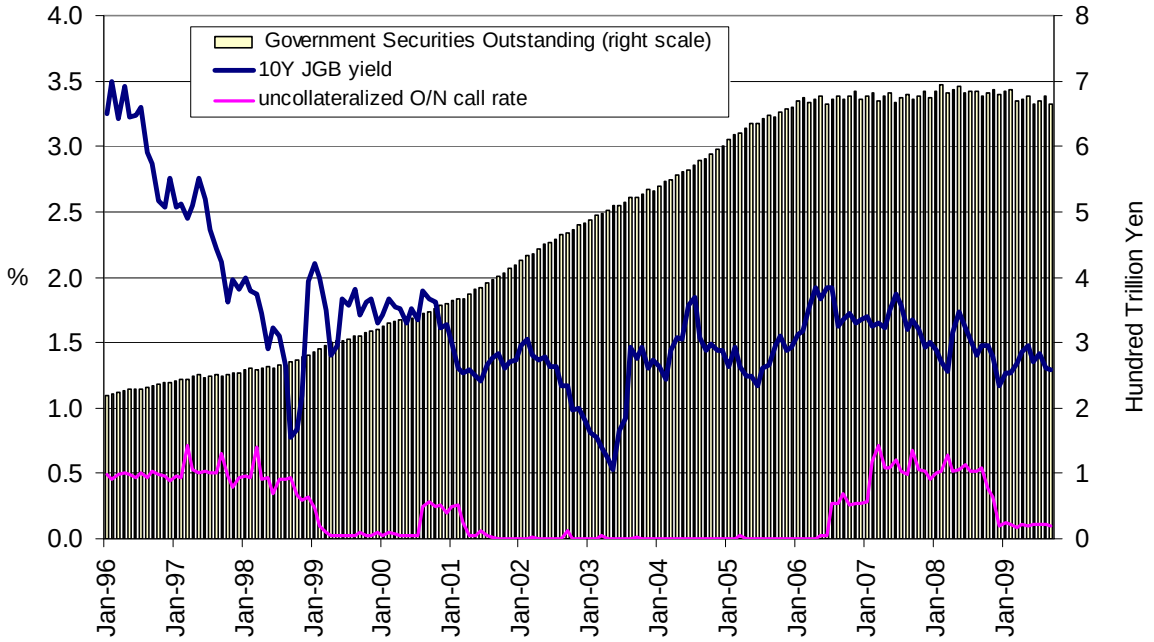
In addition to income and capital gains taxes, a 0.3% securities transaction tax is applied to sales on KRX and a 0.5% securities transaction tax is applied to OTC sales.

2.3. Lessons from Japan and the Republic of Korea (Korea)

2.3.1. Lessons from Japan: Improved Dialogue and Communication with Market Participants

The amount of Japanese government bonds (JGBs) outstanding is more than JPY650 trillion in 2009. According to the Organisation for Economic Co-operation and Development (OECD), Japan's central government debt amounted to 162.9% of gross domestic product (GDP) in 2007, which is the highest among all OECD countries.[9] The Japanese government accelerated its accumulation of debt beginning in the mid-1990s through the early 2000s. Over the period 1996–2006, the outstanding amount of government bonds tripled. In spite of the significant increase in bond issuance, the yields for JGBs have remained very low. This development is a reflection of weaknesses in the Japanese economy. In addition, there have been various commitments by the Ministry of Finance to facilitate bond issuance and improve investor relations, particularly by increasing communication on market developments and policy implementation through institutionalized forums with the private sector. Of course, emerging Asian bond markets are still small and the region's levels of public debt are not a major concern. However, it is still worth looking at the Japanese experience of how authorities can utilize communication channels with the private sector to improve and develop a bond market.

Figure 2-6: Outstanding JGBs and Yields



JGBs = Japanese government bonds.
Source: Bank of Japan

The Japanese economy has shown only modest growth since the bursting of the asset bubble in the early 1990s. The 10-year JGB benchmark yield fell below 2.0% and remained at very low levels for the last 10 years. Two subsequent events pushed the

[9] OECD StatExtracts. http://stats.oecd.org/Index.aspx?datasetcode=GOV_DEBT

Ministry of Finance establish much closer communication with market participants: the “Trust Fund Bureau Shock” in December 1998 and the "VaR shock" in 2003.

The Trust Fund Bureau Shock occurred in late 1998 and early 1999. The benchmark yield, which bottomed at 0.6% in September 1998, rose to over 2.0% in February 1999. The rise was especially sharp in December 1998 due to speculation that the Ministry of Finance would stop buying government bonds (through the Ministry’s Trust Fund Bureau) to finance a fiscal stimulus package worth JPY23.9 trillion.[10] The reversal of the market was a demonstration of investor concern over the government’s policy and the lack of communication surrounding it. After the shock, the Ministry established two regular meetings—the JGB market meeting in 2000 and the meeting of JGB investors in 2002—to improve the JGB market, ensure stable and smooth financing, and provide follow-up to market trends and needs.

Table 2-16: Milestones to Enhance Dialogue with Market Participants

Mar 2000	First issue of the Ministry of Finance’s quarterly newsletter for investors, *Japanese Government Bond Quarterly*
Sep 2000	Meeting on JGB market started
Apr 2002	Meeting of JGB investors started
Dec 2003	New debt management policy-related measures released
Jul 2004	The first issue of *Debt Management Report*
Oct 2004	Formal introduction of the JGB Market Special Participant Scheme
Nov 2004	The first meeting of the Advisory Council on Government Debt Management
Jan 2005	First investor relations seminar for overseas investors in New York and London
Jun 2007	Meeting of JGB top retailers started

Source: Ministry of Finance of Japan.[11]

The Value-at-Risk (VaR) shock occurred in 2003 when financial institutions increased their long positions of JGBs and extended their duration through June 2003 at a time when JGB yields were low. However, as the view on global disinflation was revised and US yields rose, many financial institutions that had adopted the VaR method judged that their unrealized losses exceeded their risk limits and started to reduce their positions in JGB markets. This resulted in a sharp rise in 10-year JGB yields from 0.4% to 1.5% between June and August 2003.[12]

The response from the Ministry was relatively quick compared to the previous shock. In December 2003, the Ministry announced new debt management policy-related measures to provide an outline of needed reforms. The proposed measures included the introduction of a JGB Market Special Participant Scheme,[13] which is a kind of primary dealer system;

[10] Y. Shigemi, S. Kato, Y. Soejima, and T. Shimizu. 2001. Market Participants' Behavior and Pricing Mechanisms in the JGB Markets- Analysis of Market Developments from the End of 1998 to 1999-. *BOJ Financial Markets Department Working Paper.* 01-E-1. Tokyo: Bank of Japan. P.2

[11] Ministry of Finance of Japan. *Sengo no Kokusai Kanri Seisaku no Suii* (Transformation of debt management since the War). http://www.mof.go.jp/jouhou/kokusai/policy/history.htm

[12] Bank of Japan. 2008. *Financial Markets Report.* September 2008.Tokyo: Bank of Japan. p56.

[13] In Japan, a syndicate underwriting system, which guaranteed the issuance of the entire planned issue amount under certain contract, served as a framework for stable issuance since 1965 until March 2005.

measures to increase liquidity; changes in organizational structure of the debt management office; and enhancement of disclosure and investor relations. A report produced by the Study Group for Public Debt Management Policy in November 2003 also stressed the importance of accountability and enhanced dialogue with market participants.[14]

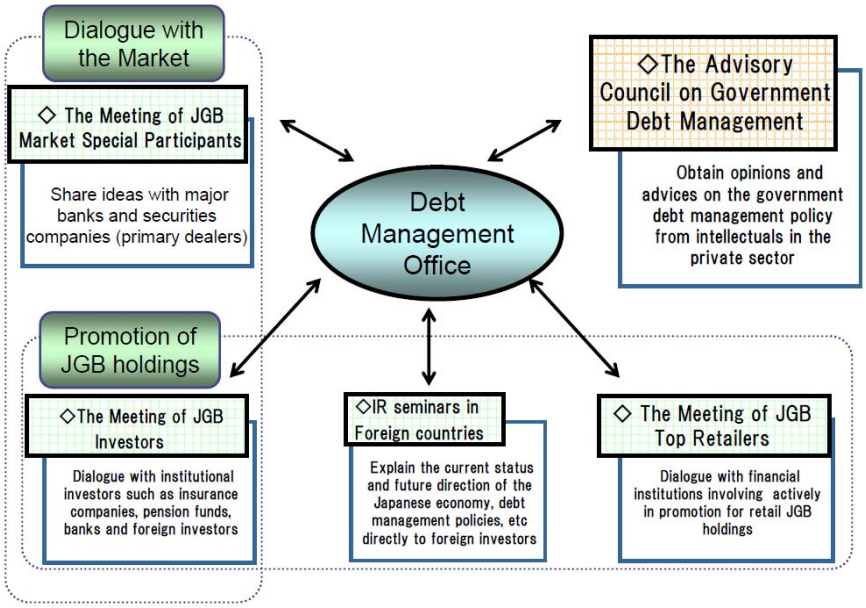
In subsequent years, a number of additional measures were introduced. In July 2004, the first Debt Management Report was issued; a new post of Deputy Director-General for Government Bonds was created; and two new divisions, the Government Debt Planning Division and the Government Debt Operations Division, were established under the Financial Bureau to reinforce debt planning capabilities. In addition, a Special Officer for Market Analysis was recruited from the private sector to provide more sophisticated sovereign debt management and market analysis. In October 2004, the JGB Market Special Participant Scheme was formally introduced. In November, an Advisory Council on Government Debt Management comprising market experts and academics was established to provide high-level insight into the JGB market and public debt management with a medium- to long-term perspective. In January 2005, the first investor relations seminars for overseas investors were held in New York and London.

The Ministry continued to improve its debt management practices by focusing on three main areas: (i) improvement of infrastructure, (ii) diversification of products, and (iii) better investor relations and increased dialogue with market participants. In 2007, the meeting of JGB top retailers was established to promote more individual investors holding JGBs by facilitating communication between top-selling agencies and the Ministry on increasing JGB sales to retail investors.

The Advisory Council and the various regular meetings are considered to be effective channels of communication for market participants to contribute their viewpoints into policy discussions with the Ministry. The JGB market meeting was held four times in 2000, ten times in 2001, nine times in 2002, eight times in 2003, and four times in 2004. This meeting was subsequently replaced by the meeting of JGB market special participants, which is held 5–7 per year. The meeting of JGB investors has been held 3 – 4 times per year since April 2002. The meeting of JGB top retailers has been held twice a year since 2007. The Advisory Council meets 3–4 times per year for a total of 21 meetings since its establishment in November 20004. The Ministry considers frequent communication at various levels as necessary to gain market confidence and credibility.

[14] Ministry of finance of Japan, Study Group for Public Debt Management Policy. 2003. *Study Group Report*. http://www.mof.go.jp/singikai/saimukanri/top.htm.

Figure 2-7: Dialogue with the Markets



Source: Ministry of Finance of Japan.[15]

Discussions taking place at these various meetings and among the Advisory Council are very open. Minutes of the meeting are released in both Japanese and English so that market participants can understand what is being considered. This ensures both accountability and transparency. The Ministry is also committed to timely information disclosure in both Japanese and English.

Table 2-17: Publications at the Website

Main Publications on JGBs	Frequency	Availability in English
Auction announcements and results	Each auction	Real-time both in Japanese and English
Auction calendar	Monthly	
Outstanding Government bonds and Borrowing	Quarterly	
Newsletter		
Debt Management Report	Yearly	ASAP, with delay due to English translation
Minutes of the Meetings and the Council	Each meeting	

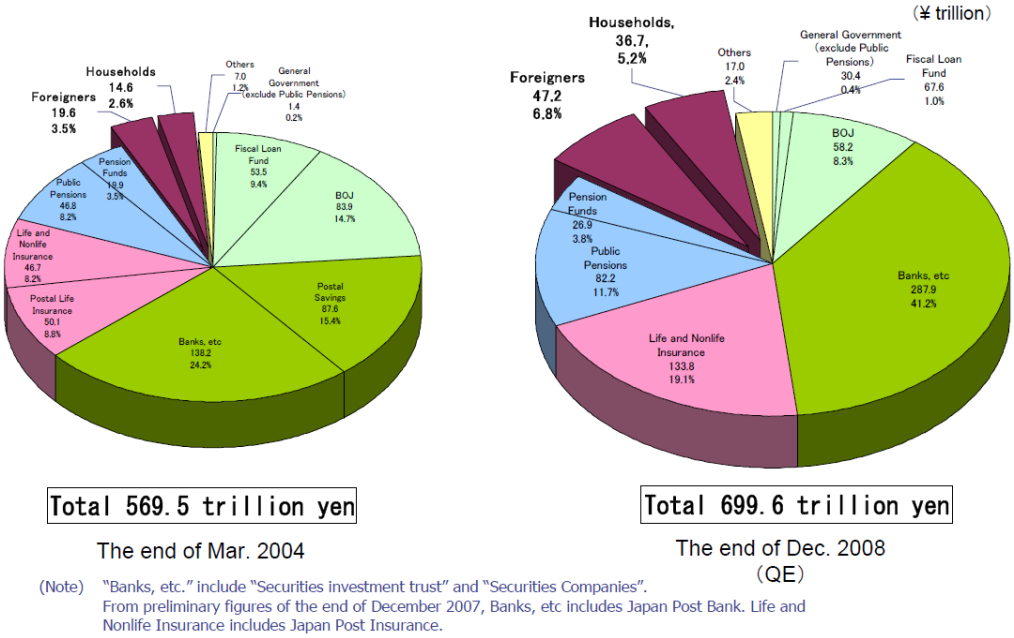
JGB = Japanese government bonds.
Source: Ministry of Finance of Japan.

The respective shares of foreign investors and the household sector in the JGB market are increasing, although these levels are still less than foreign investor and household sector shares in the US Treasury and German Bund markets. Although market opinions may not always reflect market information and the process of cooperation between market and the public sector may involve trial and error, close communication and

[15] Ministry of Finance of Japan. 2009. JGB-IR presentation in Scandinavian Tour 2009. http://www.mof.go.jp/english/bonds/presentation.htm

cooperation with market players is indispensable. It is useful to institutionalize the process of communication so both the government and market participants share responsibility and act in a coordinated manner with respect to market developments.

Figure 2-8: Ownership Structure of JGBs



(Note) "Banks, etc." include "Securities investment trust" and "Securities Companies".
From preliminary figures of the end of December 2007, Banks, etc includes Japan Post Bank. Life and Nonlife Insurance includes Japan Post Insurance.

Source: Ministry of Finance of Japan.

2.3.2. Lessons from Korea

2.3.2.1. Growth of the Government Bond Market in Korea

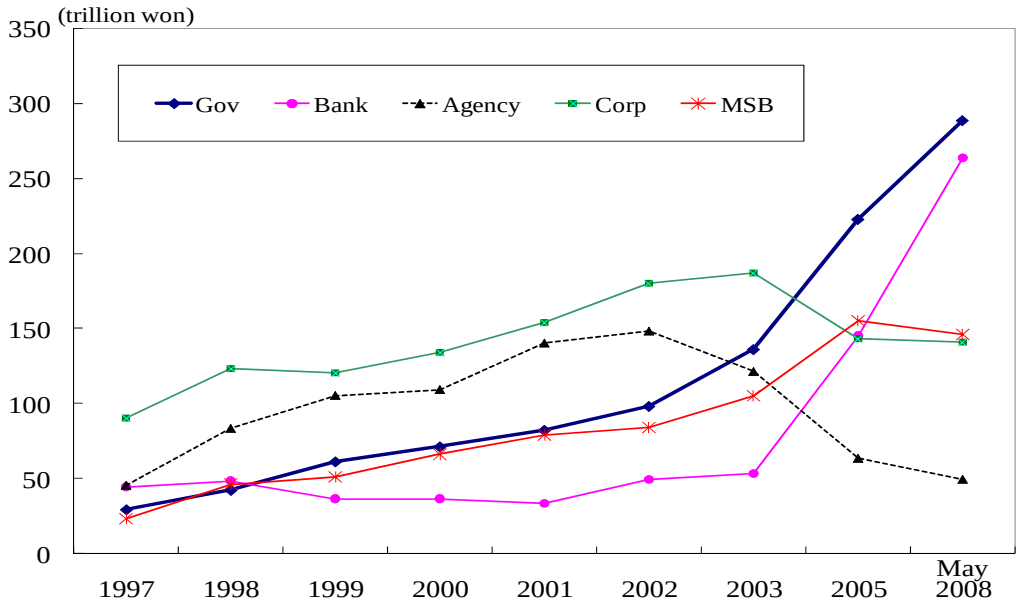
Before the 1997/98 Asian financial crisis, the government bond market in the Republic of Korea (Korea) was small and underdeveloped. Because of an emphasis on fiscal soundness, the volume of government bond issuances fell far short of the amount necessary for an active secondary market to develop. The old regime of compulsory underwriting, under which government bonds were issued at yields-to-maturity that were lower than the market interest rate, also worked as an obstacle to the development of an active secondary market.

After the 1997/98 Asian financial crisis, however, the issuance of government bonds increased dramatically to finance public funds required for post-crisis financial and corporate sector restructuring, and to boost economic recovery. As **Figure 2-9** shows, the outstanding amount of government bonds,[16] which stood at KRW29 trillion at the end of 1997, had increased almost tenfold to KRW289 trillion as of May 2008. Prior to the 1997/98 financial crisis, the size of the government bond market was much smaller than that of the corporate

[16] Although 21 kinds of government bonds have been issued since 1949, only 3 are currently being issued, including Korea Treasury bonds, Korea Treasury bills, and National Housing Bonds. The Foreign Exchange Stabilization Fund bond was consolidated into the Korea Treasury bond in November 2003.

bond market, with the outstanding volume of government bonds amounting to approximately one third that of corporate bonds. After the crisis, however, the outstanding amount of government bonds grew continuously and surpassed that of corporate bonds in 2003. Today, the outstanding volume of government bonds is almost double the volume of corporate bonds.

Figure 2-9: Trends in the Outstanding Volume of Bonds by Type in Korea



Source: Bank of Korea.

Alongside its quantitative growth, the qualitative aspect of the government bond market also improved significantly through a series of institutional reforms and infrastructure build-up. The efforts to develop the government bond market have been driven by the imperative to reduce the cost of issuing and servicing government bonds whose amount has grown dramatically. **Table 2-18** summarizes major policy measures implemented by the government in an attempt to develop efficient and liquid government bond markets in Korea.

Table 2-18: Policy Measures to Develop the Government Bond Market in Korea

Time	Policy Measure
August 1998	Announcement of the Government Bond Market Stimulus Plan
March 1999	Establishment of the inter-dealer market (IDM)
July 1999	Enactment of the primary dealer system
September 1999	Introduction of government bond futures
November 1999	Introduction of the delivery-versus-payment (DVP) system
February 2000	Introduction of inter-dealer brokers (IDB)
March 2000	Securities financing facilities for primary dealers
May 2000	Introduction of the reopening system (fungible issues)
August 2000	Switch from multiple price auction to Dutch auction
October 2002	Introduction of exchange trading requirements for benchmark issues
January 2003	Strengthening obligations of primary dealers
January 2006	Introduction of Korean Treasury bond strips bond and 20-year government bonds
January 2007	Introduction of inflation indexed government bonds

Source: Bank of Korea

2.3.2.2. Introduction of the Korea Exchange Government Bond Market to Enhance Liquidity

To develop the secondary market for government bonds, the Korean government took a unique strategy of introducing a centralized exchange market in addition to the over-the-counter (OTC) market. The Korea Exchange (KRX) Government Bond Market, which was established in 1999, adopted an electronic trading platform named the KTS(Korea Trading System) in which trades take place through competitive cross matching of price orders. The KRX Government Bond Market was initially set up exclusively for trading among government bond dealers. Later, brokered trading through securities companies was also allowed.

In general, secondary markets for bonds have developed in the form of an OTC market rather than an organized exchange. In the OTC market, investors seeking to trade bonds search for the best price quote by making calls to several dealers and then make a deal through bilateral negotiation with the dealer who offers the best price. The inefficiencies and opaqueness that arise from the typical search process in the OTC market have led to the recent trend in developed markets of bond transactions that are increasingly being executed through electronic trading systems. A successful case of the electronic trading platform for bond trading can be found in the Mercato dei Titoli di Stato (MTS) system of individual European countries and the EuroMTS. Electronic trading systems can enhance efficiency of secondary bond markets by reducing transaction costs and making the trading process transparent. For instance, Christodoulopoulos and Grigoratou (2005) argue that the HDAT, which is an electronic secondary market for securities introduced in 1998 in Greece, was successful in promoting efficiency of the government bond market. According to their findings, although the OTC market retains a significant share of total market trading activity in Greece where OTC trading volume remains several times that of the Greek electronic secondary securities market (HDAT), the bulk of transactions in the OTC market are carried out at prices formed in the HDAT.

Efficiency and transparency are precisely the reasons that the Korean government launched the KRX Government Bond Market. When it was first established in 1999, trading in the KRX Government Bond Market was so sluggish that it was unable to perform its price discovery function properly. In an effort to stimulate trading, the Korean government imposed trading requirements in October 2002 making it compulsory for the primary dealers of government bonds to make all trades of benchmark issues and at least 20% of trades of government bonds in the government bond market. The mandatory trading requirements were further strengthened when the minimum trading proportion was raised to 40% in January 2003 and again to 50% in June 2004.[17]

The imposition of the mandatory trading requirements was intended to boost trading activities in the KRX Government Bond Market to enhance the transparency and efficiency of overall government bond markets in Korea. On the other hand, however, the introduction of the KRX Government Bond Market and imposition of mandatory trading requirements may have served to undermine efficiency by restricting the trading activities of primary dealers and dividing market liquidity between the OTC and KRX markets. Thus, whether or not the imposition of the exchange trading requirements has been beneficial to the government bond market in Korea is an empirical question requiring study.

[17] The 100% mandatory trading requirement for benchmark issues was abolished in July 2008.

A. Effects of Introducing Electronic Trading Platform and Mandatory Trading Requirements

The imposition of the mandatory exchange trading requirements has been effective in increasing transactions in the KRX Government Bond Market. As **Table 2-19** shows, the trading volume of government bonds in the KRX market, which had been almost negligible before October 2002, increased substantially after the imposition of the mandatory trading requirements as did the share of the KRX Government Bond Market as a portion of all secondary market transactions of government bonds. The share of the KRX market in total secondary KTB trading increased to 34.7% in 2008 from 8.6% in 2000.

Table 2-19 also demonstrates that the increase in the trading activity in the KRX Government Bond Market did not come at the expense of lower trading activity in the OTC market. The fact that the transaction volume of government bonds increased both the KRX and OTC markets after the imposition of the trading requirements supports the argument that the electronic trading system and trading requirements have enhanced trading activities across secondary markets for government bonds.

Table 2-19: Trading Volume of KTBs (KRW trillion)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009 (April)
KRX	21.6	10.1	42.6	207.9	358.4	337.7	267.4	316.6	321.1	156.7
OTC	251.3	443.1	343.2	453.9	707.8	729.3	660.1	570.5	603.0	319.1
Total	272.9	453.2	385.8	661.8	1,066.2	1,067.0	927.5	887.1	924.1	475.8

KRX = Korea Exchange, KTB = Korean Treasury bonds, OTC = over-the-counter.
Source: Korea Exchange.

Table 2-20: Bid–Ask Spread on Benchmark KTBs in the KRX Market (%)

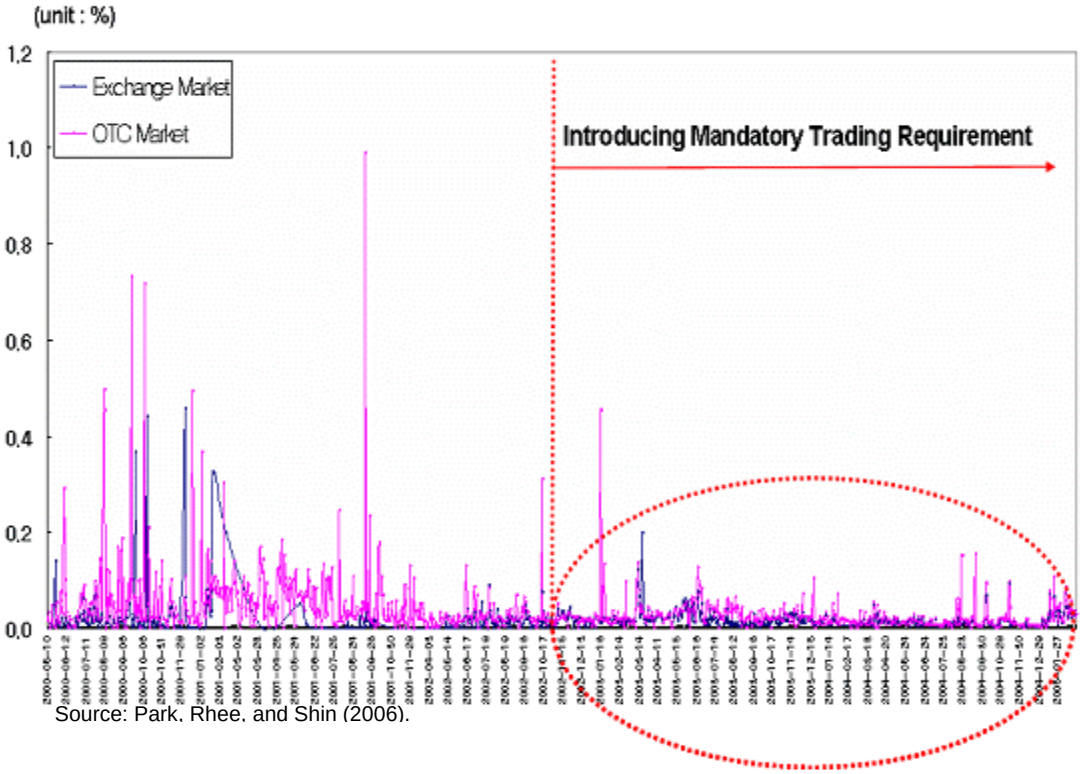
	2002	2003	2004	2005	2006	2007	2008
3-year KTB	0.43	0.20	0.09	0.13	0.06	0.08	0.09
5-year KTB	0.83	0.54	0.21	0.26	0.13	0.15	0.16

KRX = Korea Exchange, KTB = Korean Treasury bonds.
Source: Korea Exchange.

Along with expanding trading volume and increasing market turnover, the introduction of the KRX Government Bond Market and imposition of trading requirements have been instrumental in improving the overall quality of the entire secondary government bond market in Korea. First, the transaction cost in government bond trading has decreased significantly as market liquidity has improved as evident by the bid–ask spreads in the secondary market. In **Table 2-20**, the bid–ask spread on 3-year KTBs in the KRX Government Bond Market was 43 basis points in 2002. However, after the imposition of the trading requirements, the bid–ask spread declined to less than 10 basis points in recent years. The 5-year KTBs demonstrate an even more drastic decrease in the bid–ask spread.

Second, volatility in both the OTC and KRX markets has decreased significantly since the introduction of the mandatory trading requirements. **Figure 2-10** shows the daily standard deviations of transaction prices quoted in terms of yields-to-maturity for 3-year KTBs before and after the introduction of trading requirements. There is a clear difference in the volatility of transaction prices in the KRX Government Bond Market between the two periods. The volatility of the KRX market, as measured by the standard deviation of the transaction prices, fell precipitously after the trading requirements came into effect. In addition, the volatility of transaction prices in the OTC market decreased after the imposition of the trading requirements.

Figure 2-10: Standard Deviation of Transaction Prices (May 2000–February 2005)



Source: Park, Rhee, and Shin (2006).

Third, the efficiency of both the OTC market and the KRX Government Bond Market, as measured by the market efficiency coefficient (MEC), has increased significantly since the introduction of the KRX market and the mandatory trading requirements. The MEC developed by Hasbrouck and Schwarz (1988) can be applied to estimate the execution cost in the bond market and evaluate the effect of introducing the KRX market on the liquidity of the secondary market for government bonds in Korea.

The MEC is defined as the ratio between the variance of the long-run rate of return and the time-adjusted variance of the short-run rate of return. Specifically, the MEC is defined as:

$$MEC = \frac{\text{var}(R_L)}{q \times \text{var}(R_S)}, \qquad (1)$$

where R_L and R_S denote the long-run rate of return and the short-run rate of return,

respectively, and q stands for the number of short-run periods comprising the long-run period.

In general, if the market is information efficient, the short-run rates of return will follow a random walk process with an independent and identical probability distribution. As a result, the value of the MEC will be equal to one. However, as Roll (1984) shows, if there exist some execution costs, successive price changes will have a negative serial correlation. As a result, the MEC will be smaller than one, even if the market is information efficient. Therefore, assuming that the market has information efficiency, we can evaluate the size of the execution cost by calculating the value of MEC. In practice, Hasbrouck and Schwarz (1988) show that the execution cost can be derived from the MEC using the following equations:

$$C = [0.5 \times \mathrm{var}(R_S) \times (1 - MEC)]^{1/2}, \text{ if } MEC \leq 1 \text{ and} \quad (2)$$

$$C = -[0.5 \times \mathrm{var}(R_S) \times (MEC - 1)]^{1/2}, \text{ otherwise}$$

The intraday trading data from the KRX Government Bond Market and the OTC market can be used to estimate the MEC and the execution cost in each market on the condition that respective bond markets are efficient. In order to calculate the MEC, one hour was chosen as the length of the short-run period and the closing transaction price of each one-hour interval was taken as the transaction price of that period.

Table 2-21 and **Table 2-22** compare the averages of the MEC and the execution cost for the periods before and after the imposition of trading requirements. As we can see from these tables, the KRX Government Bond Market had MEC values lower than those of the OTC market and execution costs higher than the OTC market before the imposition of trading requirements. After the imposition of trading requirements, however, the MEC values in the KRX market rose to become larger than those of the OTC market, while the execution costs fell to become less than those of the OTC market. Therefore, the mandatory trading requirements appeared to be effective in enhancing the liquidity and efficiency of the KRX Government Bond Market. Tables 21 and 22 also demonstrate that the introduction of the mandatory trading requirements in the KRX market was effective in improving the efficiency and liquidity of the OTC market as the MEC values of the OTC market rose significantly after the imposition of the trading requirements in the KRX market.

Table 2-21: Average MEC and Execution Cost of 3-Year KTBs

Period	Variable	Entire Market	Exchange Market	OTC Market
Before imposing the trading requirement	MEC	0.235	0.193	0.277
		(0.153)	(0.187)	(0.109)
	C(%)	0.135	0.165	0.106
		(0.085)	(0.093)	(0.070)
After imposing the trading requirement	MEC	0.693	0.782	0.604
		(0.144)	(0.107)	(0.124)
	C(%)	0.033	0.026	0.040
		(0.010)	(0.006)	(0.007)

KTB = Korean Treasury bonds, MEC = market efficiency coefficient, OTC =over-the-counter.
Source: Park, Rhee and Shin(2006)

These findings confirm the proposition that the mandatory trading requirements introduced in 2002 have contributed to enhancing the liquidity and transparency of the KRX Government Bond Market, as well as the liquidity and transparency of the OTC market. Namely, the imposition of the trading requirements enabled transaction prices in the KRX market to reflect the supply and demand conditions of the government bond market more accurately, and thus contributed to enhancing the liquidity and transparency of the OTC market as the participants began relying upon the transaction prices set in the KRX market as reference prices for their own deals.

Table 2-22: Average MEC and Execution Cost of 5-year KTBs

Period	Variable	Entire Market	Exchange Market	OTC Market
Before imposing the trading requirement	MEC	0.206	0.118	0.294
		(0.173)	(0.079)	(0.201)
	C(%)	0.300	0.433	0.167
		(0.243)	(0.289)	(0.064)
After imposing the trading requirement	MEC	0.567	0.755	0.379
		(0.372)	(0.426)	(0.196)
	C(%)	0.074	0.030	0.117
		(0.071)	(0.065)	(0.049)

KTB = Korean Treasury bonds, MEC = market efficiency coefficient, OTC =over-the-counter.
Source: Park, Rhee and Shin(2006)

The above analyses indicate that the introduction of the KRX Government Bond Market—including the electronic trading platform and multilateral competitive price bidding, as well as the imposition of mandatory trading requirements—have been effective in improving the overall quality of the secondary government bond market in Korea. A fundamental factor in the development of this market in Korea was the relatively rapid expansion of bond issuance volume and the introduction of fungible issues. Since each of these developments is capable of enhancing market liquidity, they could also have contributed to the enhancement of liquidity and efficiency in the secondary government bond market that has been observed in Korea.

It is difficult to disentangle the effect of the mandatory trading requirements from the effect of the increase in volume. Existing research gives no definitive conclusion on the relationship between volume and price volatility in bond markets. However, the KRX Government Bond Market shows more significant improvement than the OTC market with respect to MEC values. If the results were driven by the volume effect only, then there would be no reason to have these differential effects across the two markets since the trading requirements were imposed only in the KRX market. Hence, the mandatory trading requirements in the KRX market produced a significant positive effect for the overall secondary markets in Korea and this effect is independent from the volume effect.

The observed efficiency of the KRX electronic trading platform does not imply that all bond trading should be executed on the KRX market. Unlike stocks, most of the bonds issued are rarely traded. However, the OTC market remains a better place to trade these bonds. Bond dealers, especially those who trade in large volumes, opt for a negotiated deal rather than an order-driven trade. A majority of bond dealers in Korea tend to prefer the OTC market to the order-driven KRX market. To these dealers, imposition of the mandatory trading requirements can act as a severe constraint. To overcome these shortcomings, the

Korean government should make an effort to gradually replace the mandatory trading requirements with benefit-based incentives. In addition, the government should seek to enhance the efficiency and transparency of the price discovery process within the OTC market.

In line with this endeavor, the Korean government implemented the Bond Trade Report and Information System and the Bond Quotation System in 2000 and 2007, respectively. The government is also in the process of approving the adoption of an alternative trading system in the OTC market. According to the Bond Trade Report and Information System, securities companies and bond dealers should report trading details to the Korean Financial Investment Association (KOFIA) within 30 minutes of each trade execution. KOFIA is required to post the trading details via a bond information service and data vendors.

The Bond Quotation System is aimed at ensuring transparency of bond price information in the OTC market and promoting market liquidity by requiring (i) bond dealers, including securities companies, to report the bid and ask price quotes to KOFIA in real-time; and (ii) KOFIA to post the quote information to the market in real-time. The alternative trading system under consideration will extend the Bond Quotation System that provides price quotes by supplementing functions such as trade negotiation and confirmation. Eventually, this system will provide participants in the OTC market a one-stop trade service covering the entire process from trade search to trade confirmation.

B. Implications for Asian Countries

The secondary markets for bonds have developed in the form of an OTC market rather than an organized exchange. However, exchange markets, in which transactions are made by the competitive matching of price orders and transactions that are closely monitored, can lead to a more efficient and transparent price discovery process. Given these advantages and as seen in the success of the MTS in Europe, the exchange market based on an electronic trading platform is gradually assuming a greater role in organizing secondary government bond markets. While the introduction of a new exchange market may potentially risk splitting market liquidity in countries where OTC markets have already developed, the Korean experience shows that the introduction of an exchange market can contribute to the improvement of the quality and performance of secondary markets, including the OTC market. Hence, the exchange market and OTC market can be complementary, with each one mutually reinforcing the efficiency and functioning of the other.

Despite the advantages of exchange markets in terms of market efficiency and information transparency, it may be difficult to introduce an exchange market in a country where the OTC market has already matured. Imposing obligations on bond dealers, who are accustomed to making transactions through bilateral negotiations in the OTC market, to use exchange markets would restrict and distort bond transactions. In that sense, introducing an exchange market based on an electronic trading platform to establish the secondary market for bonds would be suitable for countries where the secondary market has not yet developed.

The fact that secondary government bond markets in most ASEAN countries need to develop further implies that Asian countries can adopt a strategy of introducing and developing the exchange market based on an electronic trading platform. Such a strategy is worth taking only if the benefit of greater transparency in the exchange market would more than offset the potential cost of splitting liquidity between two markets. This strategy would be beneficial to countries where the OTC market is not well developed yet. Given the diversity and heterogeneity of bond market instruments, it is not realistic to expect that all

types of bonds are being traded in the exchange market. In particular, corporate bonds that are of diverse composition and traded infrequently may not be appropriate for trading in the exchange market. However, government bonds, especially those that are continuously traded such as the benchmark and on-the-run issues, can be traded more efficiently in the exchange market. Given that these government bonds provide benchmark prices for overall bond markets, the efficiency and price discovery function of the entire bond market can be substantially improved by concentrating their trade at the exchange market.

Yet, the introduction of an exchange market is not a panacea for the successful development of the secondary government bond market. Korea's experience shows that there are other crucial factors in improving the quality of the secondary bond market, such as a sufficiently large issuance volume, introduction of the reopening system, and active futures and swap markets, among others. However, the Korean case suggests that along with those other measures the strategy of creating exchange markets for a few critical government benchmark issues can be more effective, especially when overall secondary bond markets are relatively underdeveloped.

2.3.2.3. Opening of Domestic Bond Markets in Korea

A. Opening of Domestic Bond Markets to Foreign Investors

Korea began opening its domestic bond market to foreigners in 1994 by allowing foreign investment in unsecured convertible bonds issued by small and medium-sized enterprises (SMEs). Since then, the opening of the domestic bond market has proceeded gradually by expanding the list of domestic bonds that foreigners can invest in. In the middle of the 1997/98 Asian financial crisis, the Korean government advanced its own schedule for bond market liberalization and completely opened its domestic bond market by allowing foreign investment in all kinds of domestic bonds.

Despite the opening of the bond market, however, foreign investment in domestic bonds remained inactive for a long time. As shown in **Table 2-23**, the share as well as the absolute amount of domestic bond holdings by foreigners stayed at very low levels until 2006. At the end of 2006, the domestic bond holdings of foreigners amounted to only about 0.6% of the total amount of bonds outstanding in Korea. This is in clear contrast with the holdings of equities by foreigners, which amounted to 37.3% of the total market value of all equities listed on the KRX and KOSDAQ at the end of 2006. The low participation rate of foreigners in the cash bond market is also in contrast with the level of foreign participation in the KTB futures market. According to **Table 2-15**, trading by foreigners accounted for 14.3% of the total trading in the KTB futures market in 2006.

Table 2-23: Holdings of Korean Stocks and Bonds by Foreigners (KRW billion)

	Market Value		**Foreigners' Holdings**		**Foreigners' Share** (%)	
	Stocks	**Bonds**	**Stocks**	**Bonds**	**Stocks**	**Bonds**
1998	137,796	334,034	25,633	968	18.60	0.29
1999	349,728	364,419	76,591	1157	21.90	0.32
2000	187,902	424,684	56,559	692	30.10	0.16
2001	256,006	504,730	93,698	429	36.60	0.09

2002	258,780	563,944	97,161	647	37.55	0.11
2003	355,447	607,294	142,534	1,768	41.10	0.29
2004	412,280	659,760	173,158	3,175	42.00	0.48
2005	655,573	720,156	260,263	3,346	39.70	0.46
2006	703,843	777,763	262,534	4,618	37.30	0.59
2007	950,762	830,838	308,047	36,958	32.40	4.44
2008	577,622	864,104	166,933	37,458	28.90	4.33
2009 (April)	710,511	948,292	198,943	36,508	28.00	3.85

Source: Financial Supervisory Service, *Monthly Financial Statistics.*

Table 2-24: Foreigners' Share of the KTB Futures Market (KRW billion)

	Sell	Share(A) (%)	Buy	Share(B) (%)	Average[1]
2001	27,401	2.79	27,553	2.81	2.80
2002	67,911	5.06	69,515	5.18	5.12
2003	90,942	8.09	89,964	8.00	8.05
2004	96,774	11.90	101,311	12.46	12.18
2005	123,238	9.99	120,917	9.80	9.90
2006	161,141	14.36	159,652	14.22	14.29
2007	170,697	11.73	171,761	11.80	11.77
2008	150,923	8.86	155,994	9.16	9.01

[1] (A+B)/2
Source: KRX website.

Foreign investment in domestic bonds began rising dramatically in 2007, when the amount of domestic bond holdings of foreigners increased almost eightfold to approximately KRW37 trillion in a single year. This resulted from investor efforts to take advantage of the arbitrage opportunities created by the sharp increase in the US dollar supply in the forward exchange market. Compared to foreign participation in the domestic stock market, however, foreign participation in the domestic bond market is still very weak. At the end of 2007, the share of foreign holdings of domestic bonds was only 4.44% compared foreigners' 32.40% share of domestic stocks.

Why have foreigners not actively invested in domestic bonds despite the complete opening up of the domestic bond market in Korea? The reasons can be classified into two categories: (i) return and risk, and (ii) institutional factors. As is the case with every portfolio investment, decisions about cross-border investment in bonds are made based on the expected rate of return and risk. Foreign investors who invest in Korean domestic bonds have to assume various risks, including credit risk, exchange rate risk, and liquidity risk. If the expected rate of return from Korean bonds is not high enough to cover these risks, foreign investors will stay away from Korean domestic bonds.

However, given that foreign investors remained inactive in the Korean domestic bond market at the same time they actively participated in the KTB futures market implies that

there are other factors in addition to return and risk considerations. In its efforts to develop and internationalize domestic bond markets, the Korean government has tried to identify institutional impediments and implement appropriate reform measures in response. Examples of such reform measures include the exemption of withholding tax on interest income earned by foreigners from investment in government bonds and monetary stabilization bonds (MSBs) if the bonds are held at the omnibus accounts of international central securities depositories (ICSDs). The following section discusses in detail these institutional impediments and the reform measures taken by the Korean government in response.

B. Institutional Impediments and Recent Reform Measures

1) Withholding Tax on Interest Income

Korea withholds tax on interest income as a rule, with different rates applied depending on the investor's residency. For residents, a 15% withholding tax is levied on interest income from bonds. For nonresidents, a 10%–15% tax is levied for residents of countries with a tax treaty and a 25% tax is levied for residents of countries without a tax treaty.

Tax withholding on interest income affects the after-tax rate of return. Even if the host country does not withhold tax on interest income, foreign investors must pay tax in their home country. In addition, if the host country does levy withholding tax and if it exceeds the tax amount that foreigners have to pay to their home country, they can receive reimbursement for the difference. Accordingly, tax withholding does not necessarily lead to a lower after-tax rate of return. Nonetheless, the inconvenience arising from processing tax returns and adjusting tax based on the holding period make bond trading complicated. Thus, international bond investors, including bond funds that invest in bonds in different countries, tend to avoid countries where withholding tax is imposed.

For this reason, some countries, including developed countries, seek bond investments from foreigners by abolishing withholding tax or exempting nonresidents from withholding tax on interest income. The Working Group 2 organized under the Asian Bond Market Initiative (ABMI) recommended abolishing or lowering withholding tax on interest income for foreign investors to attract increased foreign investment in domestic bonds. Following this ABMI recommendation, Thailand and Malaysia abolished their respective withholding taxes on interest income for foreign investors.

In January 2009, in the middle of the currency crisis caused by the global financial crisis, the Korean government decided to exempt nonresidents from withholding tax on interest income from all government bonds and MSBs.[18] This policy was intended to encourage foreign investment in domestic bonds, however, its effect on foreign investment has yet to be determined.

2) Registration Requirement for Foreign Investors

Korean financial regulations require that foreigners who want to invest in listed securities in Korea register as an investor and open bank accounts for KRW deposit and foreign currency deposit. It usually takes 3–4 days to complete the registration process, including the simplified paper work. However, nonresident investors need to appoint a representative agent to complete the registration process on their behalf, which involves additional costs.

[18] MSBs are issued by the Bank of Korea to control the supply of money.

Furthermore, for those investors who intend to take advantage of an immediate investment opportunity that might remain available for a short time only, waiting 3– 4 days can be too long.

3) Restrictions on OTC Transactions by Nonresidents

The Securities Exchange Act of Korea prohibits OTC transactions of listed securities between nonresidents. Nonresident investors can make transactions of listed securities through the KRX by making orders to the securities companies that are members of the KRX. If a nonresident investor wants to trade listed bonds over-the-counter, the trade should be conducted through the intermediation of Korean securities companies. This regulation applies to almost all bonds issued in Korea since most publicly-issued domestic bonds are listed on the exchange market for tax purposes.

In many countries, bonds are generally traded in the OTC market. When foreign financial companies want to trade Korean bonds owned by them or their clients, they naturally try to find counterparties in the OTC market with whom terms can be negotiated. If a transaction in the OTC market has to be made through a Korean securities firm, it is possible that foreign investors will have to pay additional costs or lose the possibility of finding an advantageous trading opportunity. Such possibilities may keep foreign financial companies from investing in Korean bonds or recommending Korean bonds to their customers.

4) Prohibition on the Use of Omnibus Accounts for Settlement of Securities Transactions

Foreigners who invest in Korean domestic bonds normally depend on local or global custodians to settle their transactions and keep the bonds they have acquired. In making settlement for securities transactions, custodians usually use omnibus accounts through which they consolidate all of their clients' transactions into a single account and make payments and deliveries using that account.

The foreign exchange regulation in Korea, however, requires that payments to settle securities transactions by foreigners must be processed through the individual account of each foreign investor. Since omnibus accounts for payments are not allowed for foreign investors, the custodian banks in charge of settling the bond transactions of foreign investors have to make payments through the individual account of each foreign investor. This leads to added costs and inconvenience.
Despite the higher costs and added inconvenience, foreign investors can still get settlement service for their transactions of Korean domestic bonds from local or global custodians. The real problem caused by the prohibition on the use of omnibus accounts lies with the fact that ICSDs, such as Euroclear and ClearStream, which usually provide settlement service for local bonds as well as international bonds, do not provide settlement service for local bonds of the countries where omnibus accounts are not allowed. Since ICSDs provide settlement services as well as depository services for bonds in many countries, international bond investors tend to use ICSDs to settle their international bond transactions. It is likely that these investors stay away from countries where ICSDs do not provide settlement services since investing in such countries requires the hiring of an additional custodian bank instead of relying upon the convenience of a single custodian taking care of all of their international transactions.

Prior to 2007, ICSDs did not provide settlement service for Korean bonds because the use of omnibus accounts by foreign investors was prohibited. As a consequence, it is plausible that

Korea may have been losing potential foreign investments from those who would have invested in Korean bonds had they been able to settle their transactions through ICSDs.

To address this shortcoming, the Korean government allowed ICSDs to use omnibus accounts to settle transactions of domestic bonds by foreign investors. The revised regulation stipulates that Clearstream and Euroclear can provide settlement services for the country's government bonds and MSBs through their omnibus accounts set up at the Korea Securities Depository (KSD).

Allowing omnibus accounts not only provides foreign investors with the benefit of lower cost and convenience in settlement, but also enables them to avoid significant institutional impediments. First, foreign investors do not have to register with the Financial Supervisory Service and get an investment registration certificate in advance if they settle their transactions of Korean domestic bonds through an ICSD. They can simply hold Korean domestic bonds at the representative omnibus account under the title of an ICSD. In addition, the new regulation enables OTC transactions of Korean domestic bonds when these are deposited in and settled through the omnibus accounts of an ICSD. As a result, a foreign investor may now sell Korean government bonds to another foreign investor through a direct OTC transaction when both parties engage in the transaction via financial institutions that have settlement accounts at an ICSD.

Allowing ICSDs to make settlements using a representative omnibus account, however, may cause some problems in relation to the income tax exemption for foreigners. As was mentioned earlier, the Korean government decided to give foreign investors exemption from withholding tax on interest income from government bonds and MSBs in January 2009. Since foreign investors no longer need an investment registration certificate if they settle their transactions through the omnibus account of an ICSD, a domestic investor can easily disguise himself as a foreign investor by making settlement through an ICSD to gain a tax exemption on interest income.

In order to address the potential for tax evasion, the Korean government has introduced the Qualified Financial Intermediary (QFI) system. Under this system, the settling members of ICSDs that acquire QFI status are allowed to make settlement of Korean domestic bond transactions for their customers through the omnibus accounts of ICSDs. In order to qualify as a QFI, a financial institution is required to assess customer adequacy of foreign investors for tax exemption and keep track of the bond transactions and holding records of foreign investors so that they can report to Korea's National Tax Service as necessary.
In spite of the clear benefits, the use of omnibus accounts is an exception rather than a rule. It is only the ICSDs that are allowed to use omnibus accounts. Therefore, foreign investors who do not settle their domestic bond transactions through ICSDs are still subject to restrictions such as registration requirements, prohibition of direct OTC transactions between foreign investors, and prohibition on the use of omnibus accounts.

5) Availability of Information in English

As Korean is used as the working language in domestic bond markets, there is a language barrier for foreign investors and traders. In addition, the supply of English-language documents on investment analyses of domestic bond markets for foreign investors is insufficient.

6) Limited Opportunities to Utilize Bond Holdings

Bond investors in general make active use of their bond holdings to enhance returns from their investment. For instance, bonds can be used as collateral to cover counterparty risk in OTC derivative transactions. They can be utilized for lending and borrowing transactions, as well as repo transactions. In Korea, however, such opportunities are quite limited because neither the inter-institution repo trading nor the lending and borrowing transactions of bonds are active. Moreover, there exists a limitation on the maximum amount of Korean won that foreigners can borrow through repo transactions or lending and borrowing transactions. These restrictions deprive foreigners of the opportunity to enhance the returns from their investment in Korean bonds, rendering investment in Korean bonds less attractive.

7) Lack of Liquidity in the Secondary Market

Liquidity in the secondary market for bonds is relatively low in Korea, making investors in domestic bonds exposed to a higher liquidity risk. Various factors are responsible for the relatively low liquidity. First, most large domestic investors, including pension funds and insurance companies, tend to be buy-and-hold investors. Second, the market-making ability of bond dealers is quite limited. Finally, based on market convention, the minimum trading unit in the OTC market is set at KRD10 billion, which is extraordinarily high compared to minimums in other countries.

C. Assessment of the Recent Surge in Bond Investment by Foreigners

The institutional impediments pointed out so far do not by themselves prohibit foreigners from investing in Korean domestic bonds. These impediments, however, might have deterred some foreign investment in domestic bonds by imposing additional costs. Nevertheless, when the expected rate of return from Korean bonds is high enough to cover these costs, foreigners may find it attractive to invest in Korean domestic bonds. **Table 2-25** demonstrates this principle. According to the table, foreign holdings of Korean domestic bonds increased sharply starting in 2007. The share of domestic bonds being held by foreigners jumped from 0.59% in 2006 to 4.44% in 2007. Nonetheless, all of the barriers mentioned above were still in place in 2007. Hence, the sharp increase in foreigners' share of the domestic bond market must have resulted from a change in return and risk factors, rather than any change in institutional factors.

The primary reason behind the large increase in foreign investment in Korean domestic bonds in 2007 was the widening of arbitrage opportunities beginning in the second half of the year, when the foreign exchange (FX) swap rate declined sharply until the gap between the domestic and the U.S. interest rates became larger than the FX swap rate. In this case, an investor could make a profit without taking any risk by making the following arbitrage trades:

- raise US dollars at the interest rate of i^*;
- convert the dollars into Korean won through an FX swap trade selling US dollar spot at *S* KRW per USD and buying US dollar forward at *F* KRW per USD in the FX swap market;
- buy Korean bonds with the won acquired through the FX swap at the interest rate of i; and
- realize an arbitrage profit of $i - i^* - (F - S)/S$.

In principle, any investor, including domestic financial institutions, could engage in this kind of arbitrage trading. In reality, however, most of the arbitrage transactions were performed by foreign financial institutions and their domestic branches or subsidiaries because their higher credit ratings afforded them an advantage over domestic financial institutions in raising dollar funds.

Table 2-25 shows the difference between the interest rate in Korea as measured by the yield on a 3-month certificate of deposit and the cost of borrowing dollars as measured by the 3-month LIBOR from 1Q07 through 2Q09. It also shows the FX swap rate for 3-month KRW–USD swaps. The difference between these two indicates arbitrage trading opportunities. When the arbitrage opportunity has a large positive value, one can make a profit by engaging in the transaction described above. That means foreign holdings of domestic bonds are expected to increase when the value of the trading opportunity is larger.

Figure 2-11 shows the monthly movement of the arbitrage opportunity and the change in foreign holdings of KTBs from January 2007 to June 2009. The arbitrage trading opportunity was not big enough until the first half of 2007. From the second half of 2007, however, the opportunity grew larger, reaching a peak of 3.61% in November 2007. As a result, investment in Korean bonds by foreigners increased drastically as foreign financial institutions tried to take advantage of the arbitrage opportunities.

Table 2-25: Arbitrage Opportunity and Foreign Holdings of Domestic Bonds

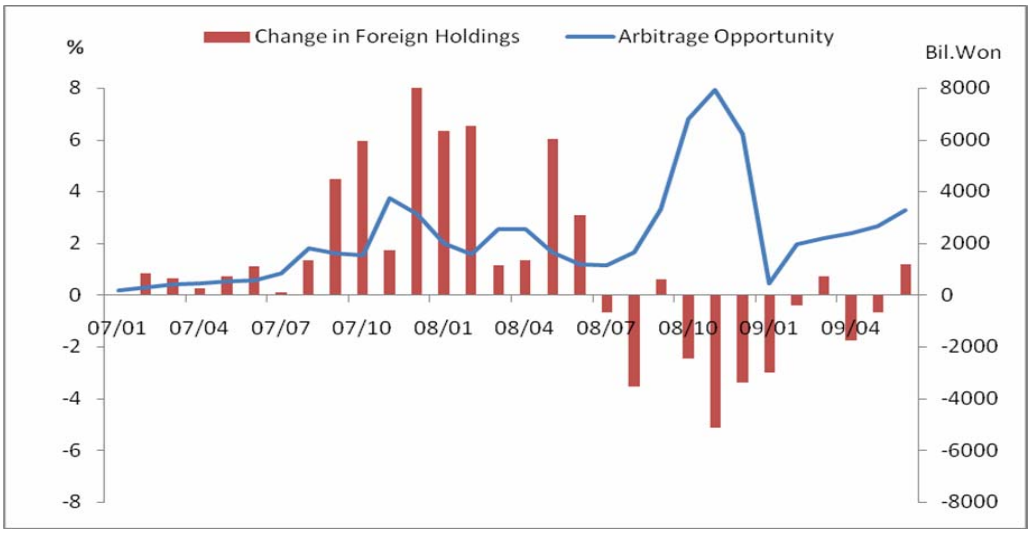
(%, KRW billion)

	2007				2008				2009	
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
$i - i^*$ [1]	-0.42	-0.35	-0.25	0.47	2.19	2.62	2.79	2.72	1.55	1.57
Swap Rate [2]	-0.70	-0.87	-1.67	-2.32	0.15	0.83	0.76	-4.27	-0.77	-1.20
Arbitrage [3]	0.28	0.52	1.42	2.79	2.04	1.79	2.03	6.99	2.32	2.77
ΔForeign Holdings	586	644	3,908	5,642	3,009	2,809	-1,800	-3,851	-478	1,716

[1] 3-month certificate of deposit (CD) rate in Korea minus 3-month dollar LIBOR
[2] (F-S)/S where S is the won/dollar spot exchange rate and F is the 3-month won/dollar forward exchange rate
[3] $i - i^* - (F-S)/S$
Source: Bloomberg, Bank of Korea

Investment in domestic bonds by foreigners faltered somewhat amid the subprime mortgage crisis, but maintained strong momentum in the first half of 2008 amid continued arbitrage opportunities. As seen in **Table 2-16**, the large arbitrage opportunities during this period arose because the FX swap rate fell more sharply than the interest rate differential. The fall in the FX swap rate can be accounted for by the fall in the forward exchange rate, which evidently resulted from an increased dollar supply in the forward exchange market due to the hedging demand of exporting firms and foreign investment funds. Korean shipbuilding companies typically sell dollars forward to hedge currency risks on their orders. During the first half of 2008, an increase in ship orders resulting from higher freight demand contributed to the increased supply of dollars in the forward exchange market. In addition to the contribution by shipbuilding companies, onshore funds that invest in foreign securities increased the US dollar supply in the forward exchange market as their trading volume increased due to new tax incentives.

Figure 2-11: Arbitrage Opportunities and Changes in Foreign Holdings of Domestic Bonds



Investment in Korean bonds motivated by arbitrage trading opportunities continued until 2Q08, although the amount of bond investment was not as large as that in the second half of 2007. Investment in bonds by foreigners rapidly increased, specifically from countries such as France and Ireland. Investors from these countries receive a substantial tax benefit such as exemption from interest income tax through tax treaties. In addition, the main offices of foreign banks increased their investment in Korean domestic bonds as they engaged in the arbitrage trading instead of their branches that were affected by tax reinforcement devices, such as the thin capitalization tax, which restricted affiliates ability to expand their investments.

In the second half of 2008, however, investment in Korean bonds by foreigners fell sharply even though the arbitrage trading opportunities widened further. The dollar shortage in international financial markets and the downgrading of Korea's credit prospect triggered by the collapse of Lehman Brothers suddenly made it a risky trading opportunity rather than an arbitrage opportunity. Ironically, the arbitrage trading during the second half of 2007 and the first half of 2008 was responsible for the worsening of Korea's credit prospect in the second half of 2008. As discussed above, the transactions available to take advantage of the arbitrage opportunities involve raising dollar funds. When these transactions are performed by domestic residents, including domestic financial institutions and domestic branches or subsidiaries of foreign financial institutions, the dollar borrowings are counted as the external debt of Korea. The arbitrage opportunities that emerged beginning in the second half of 2007 resulted in large simultaneous increases in foreign holdings of Korean domestic bonds and Korea's short-term external debt.

Normally, most of this short-term external debt is matched by the dollar payment to be received by exporters in the future, and hence, differs from traditional external debt. Nevertheless, as Korea had previously experienced a currency crisis because of short-term external debt, the increase of short-term external debt appeared daunting in the eyes of international investors. In addition to the negative effect of the expanding short-term external debt, the large foreign holdings of Korean domestic bonds were regarded as a potential source of capital outflow, creating disorder in the FX market. Hence, instead of attracting foreign investment with arbitrage opportunities, Korea should focus on fostering domestic

financial markets as well as resolving policy impediments to elicit and sustain foreign holdings of domestic bonds over the long run.

D. Implications for Asian Countries

There are several ways to develop and foster an integrated Asian bond market. An ideal way to achieve this goal is for each Asian country to develop and open its own bond market so that foreign investors can freely trade local bonds. Korea's experience, however, shows that allowing foreign investment alone does not necessarily lead to the active participation of foreign investors in the domestic bond market. Above all, many institutional and systemic obstacles may still remain even if investment by foreigners is allowed in principle. The examples of institutional impediments in Korea include withholding tax on interest income, prohibition of OTC trading between foreigners, disallowance of cash omnibus accounts, limitation on repo market participation by foreigners, and the registration requirement for foreign investors. Even though these institutional obstacles do not outright prohibit foreign investment, by imposing additional costs and inconvenience these measures tend to make foreigners hesitate in making investments.

Some of these institutional barriers have their own rationales. As a result, removing such institutional impediments can become a question of political economy that involves a choice between the interests of the domestic economy and foreign investors. The Korean experience shows that this may not always be the case. For instance, the registration requirement for foreign investors and the prohibition of the use of omnibus accounts serve the purpose of enabling the government to monitor the transactions of foreign investors so that it can identify illegal or abnormal transactions that may destabilize domestic financial markets or the FX market in Korea. However, the Korean experience shows that these regulations could be superseded by the QFI system in which only the financial intermediaries that stand willing to keep the transaction records of their customers and report them when requested by the government authorities are allowed to make settlement through the omnibus accounts of ICSDs. The new system provides foreign investors with the benefit of convenience and cost reduction, while also allowing the government to collect information needed to identify illegal or abnormal trading activities.

The lesson from the Korean experience of liberalizing domestic bond markets is that to achieve complete integration of domestic bond markets with global bond markets it is necessary to identify and remove institutional obstacles, and develop and internationalize the trading environment.

3. Towards establishment of a common corporate bond market for the region

A decade ago, the countries of emerging East Asia learned an important lesson: a variety of financial channels, particularly bond markets, are necessary for maintaining robust and sound financial systems. Ten years later, thanks to various prudent measures implemented by authorities in the wake of the 1997/98 financial crisis, Asian countries have demonstrated relative stability amid the current financial crisis. However, the region's governments still need to improve their respective bond markets to provide additional funding sources as well as investment opportunities. The recent global financial crisis has shown the policy importance of effectively channeling the huge amount of Asian savings earned through trade surpluses into facilitating economic growth in the region. In spite of cooperative regional efforts, the current situation remains one in which a substantial portion of Asian savings are flowing into advanced financial markets in the United States (US) and Europe, while a significant amount of Asian investment opportunities are being financed by capital from those advanced markets.

This incongruous situation leaves small open economies with a measure of liquidity exposed to a sudden stop or reversal of capital flows as observed in both the 1997/98 Asian financial crisis and in the recent global financial turmoil. An efficient and well-functioning corporate bond market in the region can help mitigate these incongruous problems and more effectively utilize Asian savings. This section proposes a feasible approach to creating a common Asian corporate bond market by considering the current situation of Asian bond markets and reviewing existing programs and proposals for the region.

3.1. Cross-border transaction of bonds in the region (facts, data, and assessment)

Cross-border bond transactions in Asia are very limited compared to those in the US and Europe because of capital and currency controls, as well as various regulatory impediments. In general, the issuance of Asian local currency bonds by nonresidents is allowed in major Asian countries with the notable exception of the People's Republic of China (PRC) and Taipei,China and Vietnam. However, the issue amount of nonresidents is very insignificant in some countries because nonresident issuers are required to have a local rating, meet local listing requirements, use local law as a governing law, or prepare all documents in the local language. All of these requirements, as well as a combination of them, are associated with increased funding costs. Moreover, issuance procedure is complicated and it takes time to get approval for bond issuance. Therefore, it renders issuers exposed to a risk that the market environment might change when a bond is actually issued.

Table 3-26: Asian Currencies Bond by Asian Issuers[19]

(January 2007-September 2009, billion USD)

Country (currency)	Domestic Bond Market	Foreign Bond Market	Cross-border Bond Market
PRC (RMB)	98.6%		PRC Hong Kong, China 1.4%
Hong Kong, China (HKD)	97.9%		Korea 2.1%
India (INR)	99.9%	Singapore 0.1%	
Indonesia (IDR)	77.7%	Hong Kong, China,: Malaysia, Singapore, Japan 22.3%	
Japan (JPY)	97.9%	Korea 0.6%	Japan, Philippines(ADB), India 1.5%
Republic of Korea (KRW)	99.8%	Singapore 0.2%	
Malaysia (MYR)	96.3%	Singapore, Korea, Japan 3.7%	
Singapore (SGD)	98.5%	PRC, Malaysia 1.5%	
Taipei,China (TWD)	100%		
Thailand (THD)	94.4%	Indonesia, Japan 5.6%	
Vietnam (VND)	91.5%		Vietnam 8.5%
East Asia	1282 (98.2%)	10 (0.8%)	14 (1.1%)

PRC = People's Republic of China. Excluding Australian and New Zealand dollar
Source: Dealogic.

3.1.1 Recent cross-border bond issuances in the region

As **Table 3-27** shows, a predominant domestic bond issuance by Asian issuers amounting to USD1,358 billion (87.3%) dominates cross-border bond issuance, with USD198 billion (12.7%) consisting of global bond and Eurobond issuance during the period January 2007–September 2009. Stand-alone bond issuance is preferred to medium-term note (MTN) issuance in domestic market because only a few countries have a domestic MTN program, which is not always familiar to Asian issuers and investors. In case of cross-border issuance, MTN issuance is relatively frequently utilized in the form of Eurobonds and global bonds.

[19] Domestic issuance here is defined as local currency bond issuance by residents in domestic markets and foreign bond issuance is defined as bond issuance by nonresidents in domestic markets such as *Samurai* bond in Japan and *Arirang* bond in Korea which is subject to regulatory agencies in the country where the bond is issued. Cross-border issuance is defined as the sum of Eurobond and global bond issuance. Eurobonds mean offshore bonds issued outside the specific country's jurisdiction and they are not either registered through specific regulatory agencies. In principle they can be issued in any currency. Global bond includes both Eurobond market and US *Yankee* bond market.

Table 3-27: Bond Issuance in the Region
(January 2007-September 2009, billion USD)

		Tranche Value (USD billion)	**Share** (%)
Total Issuance		1,556	100
Domestic Issuance[20]		1,358	87.3
	MTN	56	3.6
	Stand-alone	1,302	83.7
Cross-border Issuance		198	12.7
	MTN	78	5.0
	Stand-alone	120	7.7

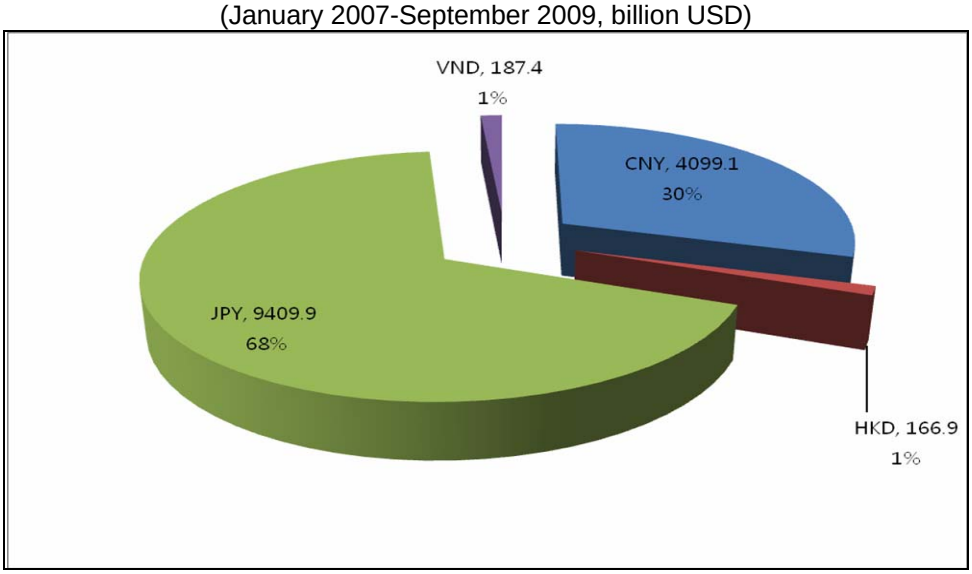
Source: Dealogic.

Looking at the currency composition of cross-border issuance, only four Asian currencies (the PRC yuan, the Hong Kong dollar, the Japanese yen, and the Vietnamese dong) have been issued recently as Eurobonds. As for Eurobonds denominated in yuan, it is assumed that government financial institutions such as the Bank of China, China Construction Bank Corp, China Development Bank, Export–Import Bank of China, Bank of Communications Co. Ltd., and Bank of East Asia (China) Ltd. issue these bonds at an offshore market in Hong Kong, China.[21] One Vietnamese issuer, Vietnam Shipbuilding Industry Corp., issued a Eurobond denominated in dong and one issuer from the Republic of Korea (Korea), Shinhan Mortgage First International Ltd., issued a Eurobond denominated in Hong Kong dollars. However, most cross-border bonds in the region are issued in Japanese yen.

[20] Domestic markets hereafter include foreign bond issuance by non-residents such as *samurai* bonds and *Arirang* bonds.

[21] The PRC yuan and Vietnamese dong are not internationalized currencies and, therefore, in principle they cannot freely be issued in international bond markets. Only Eurobonds denominated in Hong Kong dollars and Japanese yen have been issued freely in the Eurobond market.

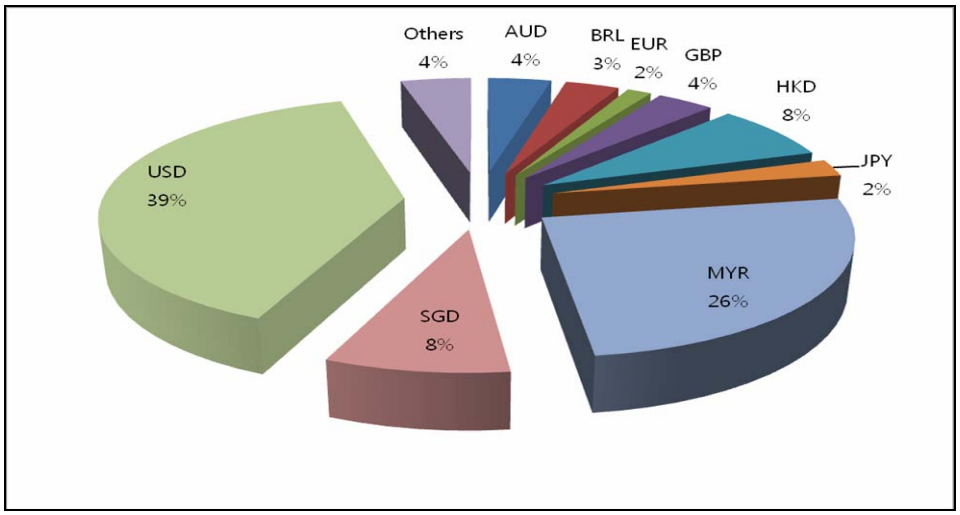
Figure 3-12: Asian Currency Share of Eurobond Issuance by Asian Issuers
(January 2007-September 2009, billion USD)



Source: Dealogic.

Looking at the currency composition of MTN programs in Asia (excluding Japan), the US dollar has the dominant share (39%), followed by the Malaysian ringgit (26%), Hong Kong dollar (8%), Singapore dollar (8%), Australian dollar (4%), and Japanese yen (2%). Bonds denominated in only four Asian currencies—Japanese yen, Malaysian ringgit, Singapore dollar, and Hong Kong dollar—can be issued under an MTN program. An interesting finding in domestic bond issuance by foreign issuers is that the Malaysian ringgit MTN market has grown substantially since the global financial turmoil set in. Meanwhile, Singaporean and Korean issuers are resorting to the Malaysian bond market as an alternative funding source through the Malaysian local MTN program.

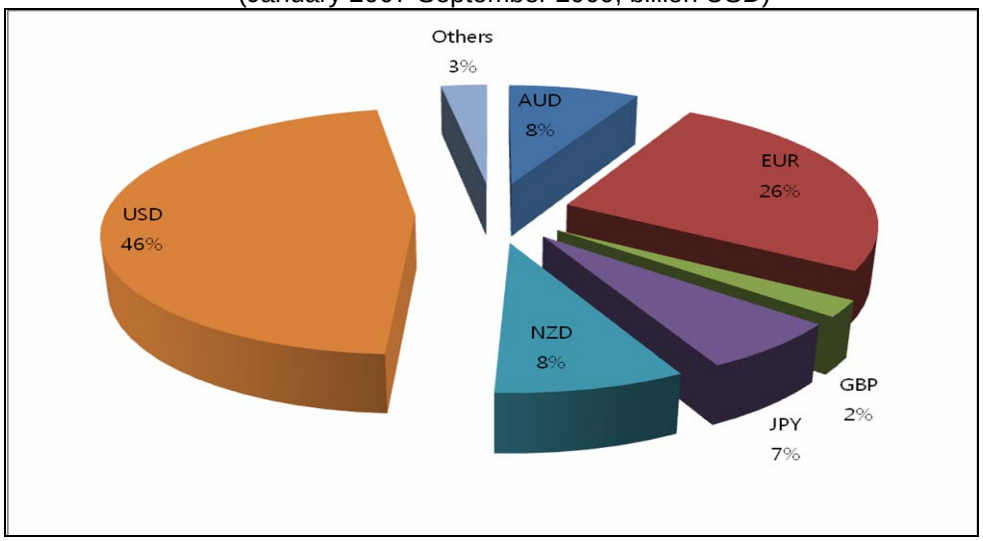
Figure 3-13: Currency Composition of Total MTN Issuance (Asia excluding Japan)
(January 2007-September 2009, billion USD)



Source: Dealogic.

In the case of Japan's MTN program, the US dollar maintains the dominant share (46%) as the currency of MTN issuance followed by the euro (26%). The New Zealand dollar (8%) and the Australian dollar (8%) each have a respectable share of the market as well because *uridashi* bonds denominated in these currencies have become popular among Japanese retail investors seeking high-yielding currencies due to low interest rates in the domestic market. Even the South African rand has become popular in this respect.[22] The *uridashi* market provides a meaningful policy implication for local currency (LCY) Asian bond market development by circulating more than JPY1,500 trillion in Japanese household savings within the region[23].

Figure 3-14: Currency Composition of Total MTN Issuance (Japan)
(January 2007-September 2009, billion USD)

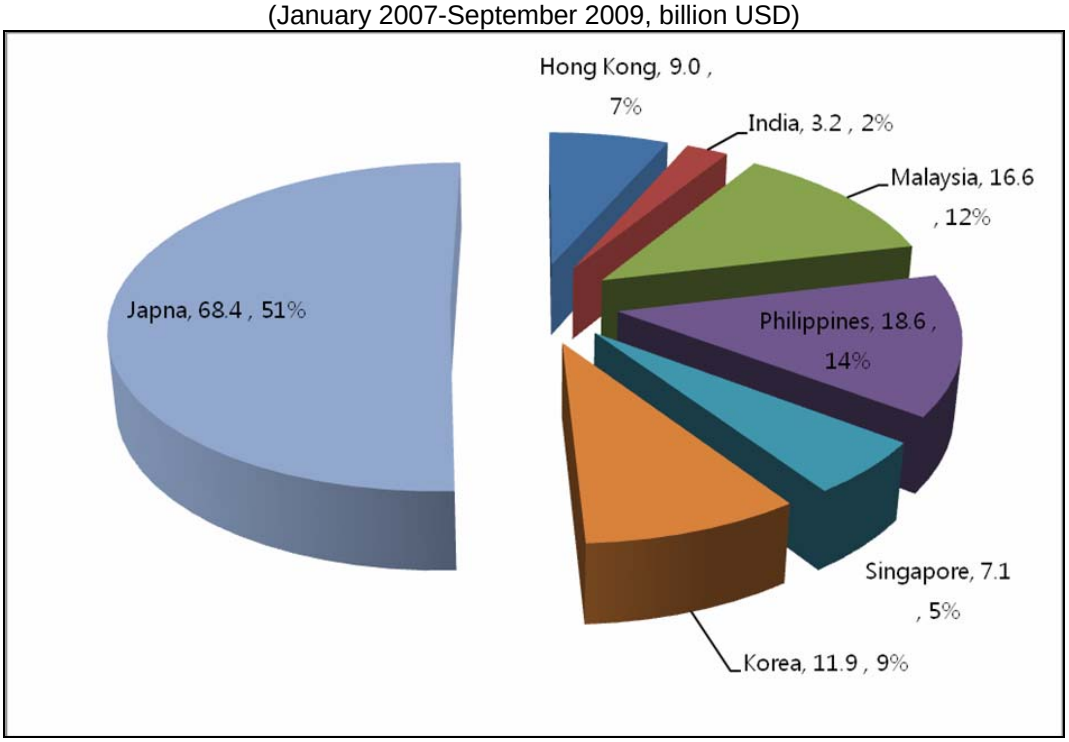


Source: Dealogic

Figure 3-15 shows the volume of MTN issuance by the nationality of issuer. Japan is the most frequent MTN issuer (51%), followed by Malaysia (16.6%); Korea (9%); Hong Kong, China (7%); and Singapore (5%). In the case of Korea, government financial institutions—such as the Export–Import Bank of Korea (KEXIM), Korea Development Bank (KDB), and Industrial Bank of Korea (IBK)—frequently utilize euro and global MTN programs to raise funds in international markets. Such frequent issuers make full use of the convenience and flexibility of MTN programs. However, most Asian issuers do not fully utilize MTN programs.

[22] This is a typical reverse inquiry issuance based on issuers' financing needs rather than investors' needs.
[23] Fumiaki Nishi and Alexander Vergus (2006), "Asian Bond Issue in Tokyo: History, Structure and Prospects", in Asian bond markets: issues and prospects, BIS.

Figure 3-15: Total MTN Issuance by Nationality of Asian Issuers
(January 2007-September 2009, billion USD)



Note: In the case of the Philippines, the Asian Development Bank (ADB) fully utilizes an MTN program for funding with its own Asian Currency Note Program (ACNP) program as well as Euro and global MTN programs.
Source: Dealogic.

3.1.2 MTN markets in the selected countries

3.1.2.1. MTN Market in Malaysia

Malaysia has established an MYR-denominated domestic MTN market comprising Islamic MTNs as well as conventional MTNs. Malaysia MTNs and commercial paper, under a debt program approved by the Securities Commission (SC) and following the Guidelines on the Offering of Private Debt Securities, can be issued on a scripless basis through the Real Time Electronic Transfer of Funds and Securities System (RENTAS). Conventional and Islamic MTN issuance comprised 64.4% of private debt securities in 2008. Meanwhile, the MTN program has become a major funding instrument in the Malaysian market. Amid the recent financial turmoil, non-resident issuers, such as Korean issuers, have set up multi-currency conventional and Islamic MTNs in order to tap the Malaysian ringgit market.[24]

[24] Most issuers are financial institutions (e.g., National Agricultural Cooperative Federation, Woori Bank, Hyundai Capital Services Inc., Industrial Bank of Korea, KEXIM, and Hana Bank).

Table 3-28: PDS Issues Approved in 2008 (MYR million)

	No. of Issues	size of Issues
Conventional	**48**	**94,894 (74.1%)**
MTN/CP	24	63,314 (49.4%)
Bonds	24	31,580 (24.6%)
Islamic	**43**	**33,234 (25.9%)**
MTN/CP	27	19,228 (15.0%)
Bonds	16	14,006 (10.9%)
Combination	4	10,000

Source: Malaysia's Securities Commission.

3.1.2.2. MTN market in Singapore

Singapore has its own market practice, known as the "Singapore practice," which takes full advantage of the euro market but is not subject to European Union (EU) directives, United Kingdom (UK) Financial Services Authority's (FSA) regulation, or the International Capital Market Association's (ICMA) rules and recommendations. Singapore has developed a flexible and convenient procedure to issue and list its MTN program, while the euro market has become more regulated towards a single market. Asian issuers with euro MTN programs that are listed on European exchanges, such as the London Stock Exchange or Luxembourg Stock Exchange, are subject to European securities legislation. The EU is seeking to create a single European wholesale capital market under the Financial Services Action Plan (FSAP). This would expose Asian issuers to the latest regulatory mechanisms of the more regulated European financial markets.

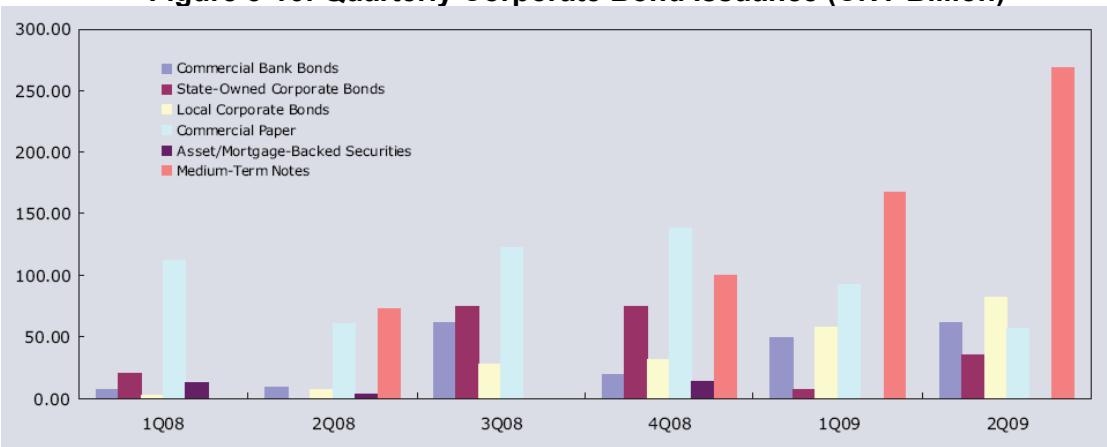
To avoid such regulatory burdens, many Asian issuers have shifted their listing from the London and Luxembourg Stock Exchanges to the Singapore Stock Exchange (SGX). Singapore's MTN program provides a currency option of Hong Kong dollars and Singapore dollars. Most MTN issues are listed on the SGX for information disclosure, even though bonds issued through an MTN program are actually traded in the form of private placement. The listing on the SGX is for institutional investors, such as life insurance companies and pension funds, which must follow their own internal rules of investing only in listed bonds. The Singapore MTN program is allowed to issue both multi-currency bonds, including those denominated in Singapore dollars, and onshore and offshore bonds.

3.1.2.3. MTN market in China

The PRC successfully launched its domestic MTN program, which is an innovative debt instrument mainly guided by the People's Bank of China (PBOC), in April 2008 on the interbank bond market. Also in April 2008, the National Association of Financial Market Institutional Investors (NAFMII), which is a self-regulatory organization (SRO), issued its Provisions on the Administration of National Inter-bank Bond Market Makers. The provisions offered guidance on market-making business in the interbank bond market and shaped the incentives and binding mechanisms for market makers in order to tap their potential in the bond market.

There has been phenomenal growth in issuance under the PRC's MTN program since 2Q08 (**Figure 3-16**). Over the same period, bond issuance through the window of the National Development and Reform Commission (NDRC) and Corporate Securities Regulatory Commission (CSRC) has dropped substantially. Corporate bond issuance seems to have shifted to the shelf-registered interbank bond market regulated by NAFMII.[25] One apparent reason for this shift is that the approval process for the MTN window is much quicker and can often be completed in 1–2 months. Total issuance of MTNs in the first half of 2009 reached CNY435.70 billion, which is 251% of the full-year total for 2008.

Figure 3-16: Quarterly Corporate Bond Issuance (CNY Billion)



Source: Chinabond.

3.2. Impediments to cross-border transactions of corporate bonds in the region

This section reviews the behavior of Japanese investors with abundant capital who play a critical role in emerging Asian bond markets. It then presents findings from consultations with investor and issuers in the Eurobond and Asian LCY bond markets. Finally, the impediments to cross-border transactions of corporate bonds in the region are reviewed.

3.2.1. Market consultation results

Japanese investors play a pivotal role in channeling the region's high level of savings into emerging Asian bond markets. This is because Japan already has an established market infrastructure and huge amounts of capital available to invest in Asian bonds. Japanese retail investors have more risk appetite than institutional investors because retail investors prefer steady periodic income while institutional investors have a relatively short time horizon owing to the mark-to-market accounting rules under international financial reporting standards (IFRS). If a small portion of retail investors' JPY1.5 trillion in household savings could be directed to emerging Asian bond markets, it would have a substantial impact.

[25] The PRC's MTN market was temporarily shut down due to the concerns about an overheating economy and inflation. However, the PBOC announced on 5 October 2009 its agreement with NAFMII to resume acceptance of registrations for MTN issuance by non-financial enterprises effective 6 October. Preference was given to applications for MTN issuance by large-scale weight-stock companies and enterprises involved in coal production, power generation, oil refining, and transportation services.

Based on market consultations, the most promising approach appears to be promoting retail investment through trust funds. However, investment through trust funds requires that some hurdles are cleared in advance. First, there is lack of liquidity in most Asian bond markets, while the assets of trust funds must be made redeemable any time a customer requests. Second, fund managers need to make all transaction processes transparent and they must understand all procedures to comply with investor protection regulations. The Financial Instrument Exchange Law requires asset managers to be able to provide detailed investment information to retail investors prior to their investment decision. This regulatory burden lowers the expected rate of return. Therefore, asset managers continually search for investments in high-yielding currencies, such as the South African rand, or prefer to invest in the USD- or EURO-denominated bonds of Asian issuers instead of LCY bonds.

There is a cultural dichotomy between the domestic markets and international markets in even same issuers with same credit risk. Domestic market issuance is more appealing to large number of small to medium-size local investors. For example, they prefer to invest in JPY-denominated domestic bonds (*samurai* bonds) rather than JPY-denominated international bonds (Euroyen bonds) because they would like to read prospectus in Japanese; they would like to manage the bonds as domestic bonds rather than international bonds as for their accounting management purposes.

3.2.2. Korean and Japanese issuers and investors views on Euro-currency market and domestic markets

Although issuers in both Japan and Korea agree on the necessity of a Euro–Asian currency bond market in the region, the US dollar still plays a dominant role in intra-regional trade and financial assets transactions as a vehicle currency. Asian LCY issuance poses a challenge to corporate issuers because their credit ratings are below those of their respective governments, which consequently raises the cost of debt financing. In addition, the Asian LCY bond market is much smaller than the US dollar market, which has a comparative advantage resulting from economies of scale. In some cases, domestic controls on foreign exchange and capital flows restrain the issuance of bonds as a means of raising LCY funds. Therefore, preferential treatment for Asian LCY bond markets through policy action is required to bridge the substantial gap between Asian LCY and US dollar bond issuance. A common regional offshore market might solve the above problem if Asian currencies were partially allowed to trade freely.

Japanese investors are reluctant to take on the risks associated with Asian currencies due to their high volatility and, in some cases, inconvertibility, as well as stringent controls on capital flows and foreign exchange. However, the appetite of Japanese investors for Asian LCY bonds seems to be increasing due to the relatively solid performance of Asian economies amid the recent financial market turmoil. Although major investors, such as Japanese banks, still prefer JPY-denominated assets, their secondary preference has shifted from USD-denominated to Asian LCY-denominated assets and there seems to be growing demand from retail investors for Asian LCY-denominated assets. The liberalization of Asian money markets and transactions involving Asian currencies will lead to more flexible and attractive LCY bond markets in Asia, which can serve as either a complement or alternative to advanced markets.

Many market participants emphasized that regular issuance of Euro–Asian bonds will help to create liquidity. In order to meet investor preference, the credit ratings of issuers in this market should be high and issuers initially should be limited to sovereign or quasi-

sovereign entities. Infrastructure and public utilities companies with significant needs over the long term are good candidates for issuance. Credit enhancements, such as mortgage guarantees, are indispensable in mitigating investor reluctance to take credit risks on Asian currencies. It is also crucial to clarify bankruptcy procedures and conditions in the case of default in order to alleviate investor anxieties. There are concerns that an offshore bond market could crowd out investments in domestic bond markets. However, offshore bond markets, such as the Eurobond market, and domestic bond markets can and do have positive spill-over effects on each other[26].

3.2.3 The gap between hope and reality

3.2.3.1 Credit information gap

A credit information gap exists between the generally low credit ratings of many regional issuers and investor demand for highly-rated bonds. Based on market consultations held in Tokyo, Japanese investors are wary of credit risks since many Japanese institutional investors suffered losses from the recent financial turmoil. A planned Credit Guarantee and Investment Mechanism (CGIM) under the ABMI is expected to bridge this gap. However, considering investors' micro-level behavior, CGIM will need to be carefully designed to attract more investors.

3.2.3.2 Country ceiling and rating gap between local currency and foreign currency

Local credit ratings agencies in different countries often follow ratings practices that are incompatible with international rating agencies by assigning government bonds the highest credit rating and giving other entities' ratings that are lower than the sovereign ceiling (country ceiling). Since sovereign creditworthiness differs across countries, this makes corporate credit ratings less reliable. And there is also a difference between credit ratings of LCY and foreign currency bonds from the same issuer. Harmonizing ratings practices and abandoning the country ceiling would help mitigate these problems.

3.2.3.3 Less local currency transactions in comparison to US dollar transactions

As shown in **Figure 3-17**, the rapid growth of intra-regional trade and investment has not decreased the use of the US dollar as a vehicle currency, which is an international medium of exchange that settles transactions between different currencies with the lowest transaction costs possible. This dominant role of the US dollar as a vehicle currency heightens the vulnerability of Asian currencies to Herstatt risk arising from the settlement lag in different time zones. Studies indicate that the duration of settlement exposure is shortest for foreign exchange transactions among Asian currencies and longest for those involving the purchase of US dollars[27].

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[26] Hamada, K., Jeon, S.C. and Ryou, J.W (2001) "Asian bonds markets: issues, prospects and tasks for cooperation", Conference Paper Ministry of Foreign Affairs, Thailand

[27] EMEAP (2001) "Foreign Exchange Settlement Risk in the East Asia-Pacific Region" Report Prepared by the EMEAP Working Group on Payment and Settlement Systems

Figure 3-17: Foreign Exchange Turnover by Currency Pair

	Estimated average daily turnover, in billions of USD[a]				Pair's % share of allocated turnover	Unallocated % share of total turnover[b]
	April 1998	April 2001	April 2004	April 2007		
USD/Asia[c]	45.3	63.5	95.8	241.5	97	30
USD/HKD	17.7	30.5	34.3	100.4	99	27
USD/SGD	17.3	13.2	16.8	37.6	94	37
USD/KRW	2.2	9.9	21.6	37.0	96	25
USD/INR	1.3	2.7	6.0	22.6	96	23
USD/CNY	0.2	0.3	1.8	15.0	100	40
USD/TWD	1.6	3.2	7.8	11.5	95	44
USD/THB	2.6	1.8	3.6	6.0	93	26
USD/MYR	0.6	0.9	1.0	4.3	97	38
USD/PHP	0.5	0.5	0.8	3.5	99	38
USD/IDR	1.2	0.6	2.1	3.4	93	44
EUR/Asia[c]	0.1	0.2	0.6	1.8	1	–
EUR/KRW	<0.1	<0.1	0.2	0.6	2	–
EUR/SGD	0.1	0.1	0.2	0.6	1	–
EUR/INR	<0.1	0.1	0.1	0.2	1	–
EUR/TWD	<0.1	<0.1	0.1	0.2	2	–
EUR/IDR	<0.1	<0.1	<0.1	0.1	3	–
JPY/Asia[c]	0.3	0.3	0.9	1.7	1	–
JPY/KRW	<0.1	0.1	0.3	0.7	2	–
JPY/SGD	0.1	0.1	0.2	0.4	1	–
JPY/THB	0.1	<0.1	0.2	0.3	4	–
GBP/Asia[c]	<0.1	0.1	0.2	0.6	0	–
GBP/SGD	<0.1	<0.1	0.1	0.4	1	–
CHF/Asia[c]	<0.1	<0.1	<0.1	0.7	0	–
CHF/INR	<0.1	<0.1	<0.1	0.5	2	–
AUD/Asia[c]	<0.1	<0.1	0.2	0.4	0	–
AUD/SGD	<0.1	<0.1	0.1	0.3	1	–
CAD/Asia[c]	<0.1	<0.1	<0.1	0.2	0	–
CAD/SGD	<0.1	<0.1	<0.1	0.2	0	–
Other[d]/ Asia[c]	1.5	0.6	1.8	2.0	1	–
Other[d]/ HKD	1.2	0.4	1.6	1.3	1	–

[a] Turnover unallocated by currency pair is redistributed in the same proportion as each currency pair's share of allocated turnover.
[b] Turnover unallocated by currency pair as a percentage of each Asian currency's total turnover.
[c] Sum of Asian currencies.
[d] Transactions against currencies other than USD, EUR, JPY, GBP, CHF, AUD and CAD. Source: BIS Triennial Central Bank Survey.

Source: Tsuyuguchi and Wooldridge (2008). Tsuyuguchi, Yosuke and Wooldridge, Philip (2008) "The evolution of trading activity in Asian foreign exchange markets ",Emerging Markets Review, vol 9, pp 231-246

The launch of CLS Bank in 1997 eliminated most of the principal risk associated with foreign exchange transactions[28]. However, the problem is that only three Asian currencies can be settled through CLS Bank: the Singapore dollar since 2003 and the Hong Kong dollar and Korean won since 2004. Also CLS bank cost is added to transaction costs. Another feasible way to mitigate settlement risk in Asia is through use of a regional currency in place of the US dollar in intra-regional transactions. Automated teller systems in Indonesia, Malaysia, Singapore, and Thailand were linked bilaterally in 2005/06 as part of the e-ASEAN project. Foreign exchange transactions between connected systems in different countries are now settled directly in local currency without the intermediating role of the US dollar. Such transaction volumes are still small. However, as economic and financial integration within the region continues to progress, Asian currencies will eventually displace the US dollar in intra-regional transactions.

3.2.3.4 Language barriers

A common problem across the region is language barriers, which make it difficult for foreign investors to find accurate and timely regulatory information, and costly for them to fulfill documentation requirements. For example, Japanese local governments are trying to attract more foreign investors as their funding costs are expected to rise. However, they still

[28] Galati, G. (2002) "Settlement risk in foreign exchange markets and CLS Bank", BIS Quarterly Review

insist on issuing based on local market practices as opposed to international practices. The total costs of issuing international bonds are still high because compliance with disclosure rules in English is a major cost. Nonresident issuers suffer from the burden of preparing documentation in the local language.

3.2.3.5 Regulatory burden (investor protection and disclosure requirements)

In general, full disclosure increases investor protection by providing information that is critical to the investment process. Full disclosure advances fair, open, and transparent markets, and strengthens market integrity. At the same, it is a regulatory burden to nonresident issuers and investors operating under a different regulatory regime. In order to promote cross-border bond transactions in the region, disclosure should be simplified or exempted for professional market players with a high level of investment knowledge, while full and transparent disclosure should be provided to retail investors for the sake of investor protection. This suggests the need for a common inter-regional offshore private placement market targeted to professionals.

3.4. Existing common program and proposals for the region

The 11th ASEAN+3 Finance Ministers' Meeting in 2008 proposed a new ABMI roadmap to provide further momentum for the development of LCY bond markets. Under the new ABMI roadmap, four task forces and technical assistance coordination teams were established. The task force is focused on promoting Asian LCY MTN programs from the supply side of bond markets.

The first goal of the ABMI is to establish and/or strengthen LCY bond markets in the region and facilitate cross-border transactions to develop a regional bond market similar to that of the Eurobond market. An MTN program is expected to play a catalytic role in creating an Asian international bond market by providing the ready-to-issue standard platform in the region. An MTN program enables firms to issue bonds on a regular basis to meet their funding needs within an authorized amount. An MTN program can flexibly include more than one issuer and currency, although the issues are independent up to a maximum amount authorized.

The MTN program has already become a major funding source in the US and Eurobond markets due to its flexibility and readiness. The advantage to issuers is that they are not required to produce a full suite of legal documents each time they want to issue notes and bonds. Instead, a series of underlying documents are amended with each issue by a pricing supplement that sets out the terms of each specific issue of notes. Investors also can choose different maturities, ranging up to 30 years based on their financing needs[29].

3.4.1. Asian Currency Note Program

Against a backdrop of Asian currencies not being utilized in MTN issuance in the region due to institutional impediments and a lack of need for Asian currency financing, the Asian Development Bank (ADB) established a 15-year Malaysian ringgit MTN program valued at MYR3.8 billion in April 2006 and launched an inaugural offering of MYR500 million

[29] Leland E. Crabbe (1993), "Anatomy of the Medium-Term Note Market" Federal Reserve Bulletin, pages 751-768

in notes. In September 2006, ADB established its 30-year Asian Currency Note Program (ACNP)—Asia's multi-currency bond issuance platform under a single unified framework with a common set of documents governed by English law—and launched the inaugural offering of notes in the capital markets of Singapore and Hong Kong, China.

The aggregate nominal amount of the ACNP will not exceed the equivalent of USD10 billion. Under the ACNP, bonds denominated in Singapore dollars, Hong Kong dollars, and Malaysian ringgit can be issued with the approval of relevant authorities in the region. ADB plans to add other Asian currencies to the ACNP over time. These notes may be listed on one or more stock exchanges, or may be unlisted, as specified in the applicable pricing supplement. Approval for listing has been granted in principle by the Singapore Exchange (SGX).[30] Also, the ACNP has been designed so that notes may be held through one or more domestic central securities depositories such as Central Depository Pte. (CDP) in Singapore; Central Moneymarkets Unit (CMU) in Hong Kong, China; RENTAS in Malaysia; and international central securities depositories (ICSDs), such as EuroClear and Clearstream, in Europe.

Table 3-29: ADB's Asian Currency Note Program

Issuer	Market	Investor	Dealer	Agent	Clearing /Settlement	Currency	Program Amount
ADB	Hong Kong	**Bank ranking** 1. HSBC 2. Hang Seng 3. Bank of China (HK) 4. Standard Chartered 5. Bank of East Asia **Insurance ranking** 1. AIA 2. Manulife 3. HSBC Life	**Ranking** 1. HSBC Holdings PLC 2. ANZ Banking Group 3. Standard Chartered PLC 4. Citi 5. JP Morgan	DBS Bank Ltd.	HKMA	HK Dollar	HK$7,800M
	Singapore	**Bank ranking** 1. DBS 2. UOB 3. OCBC **Insurance ranking** 1. AIA 2. Great Eastern Life 3. NTUC Income	**Ranking** 1. DBS Group Holdings 2. Citi 3. Oversea-Chinese Banking 4. Standard Chartered PLC 5. HSBC Holdings PLC	DBS Bank Ltd.	CDP	SG Dollar	S$1,600M
	Malaysia	**Bank ranking** 1. Maybank Group 2. Bumiputra-Commerce Hldg 3. Public Bank Group 4. RHB Capital Group 5. AmBank Group **Insurance ranking** 1. Great Eastern Life 2. AIA 3. ING	**Ranking** 1. CIMB Investment Bank Bhd 2. Malayan Banking Bhd 3. RHB 4. AMMB Holdings Bhd 5. HSBC Holdings PLC	AmInvestment Bank Bhd.	BNM (RENTAS)	Ringgit Malaysia	MYR3,800M

Note: Ranking of banks are based on income; ranking of insurers are based on asset; ranking of dealers are based on the amount of book managed (for non-convertible bonds) from 2000 onwards.
Source: Nomura Research Institute (2009), The ASEAN Secretariat's Technical Assistance for "Promotion of Asian Medium Term Note (MTN) Program"

Although ACNP is only for ADB, and cannot be utilized by ordinary corporate issuance[31], ACNP provides a basis to discuss a standardized platform for regional MTN issuance.

[30] The EU has introduced the Prospectus Directive and the Transparency Directive to harmonize regulations on securities issuance and the listing of EU member countries. The EU Directives have forced Asian issuers to look to the Singapore Exchange (SGX) to list their Eurobonds to avoid the requirement of international accounting standards under the EU Directives.

[31] The ACNP format cannot be directly utilized because there is preferential treatment for ADB as a supra-national institution.

3.4.2. ASEAN's proposed MTN program

Most frequent issuers in Asia rely heavily on Euro MTNs to raise funds in international markets because of the flexibility and convenience that comes with not being subject to one country's regulations. Singapore; Hong Kong, China; Malaysia; and the PRC have domestic MTN programs, while Japan and Korea introduced shelf registration systems to reduce the burdensome registration procedures accompanying bond issuance. However, an MTN program has more flexibility in programming the bond issuance in any form based on the needs of investors and issuers.[32]

Table 3-30: Comparison of MTN Program

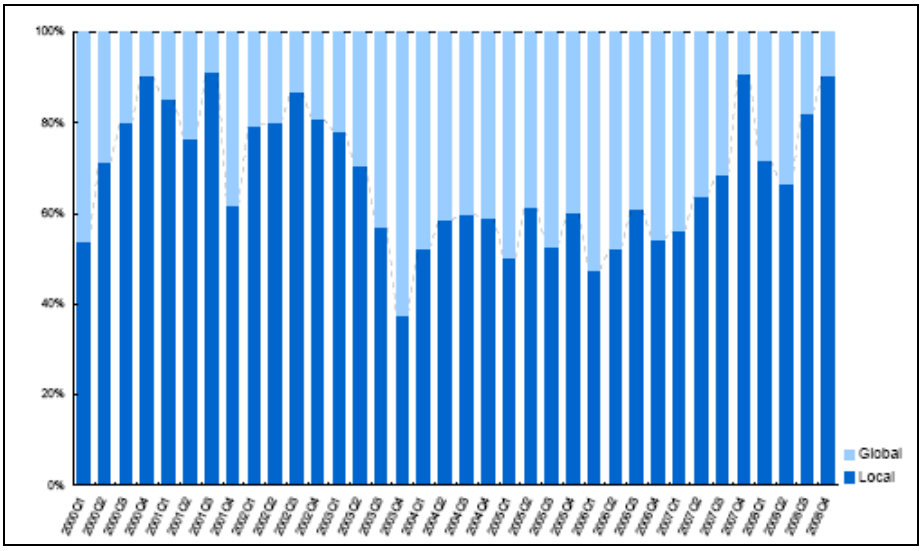
Category	Characteristics
Euro MTN	Free from specific country's jurisdiction Private placement for small number of professional investors No currency restriction in principle Settlement through ICSDs (EuroClear, ClearStream)
Regional MTN	Asian currency note program by ADB Benefit from domestic MTN as well as Euro MTN Special exemption from withholding tax and governing law as supranational
Domestic MTN (including shelf-registration)	Quick and simplified procedure to issue bonds/notes Subject to local regulatory regime Settlement through domestic CSDs

An Asian MTN program could offer the benefit of issuing Asian local currencies at a cheaper cost while also enjoying the existing benefits of a Euro MTN program when major US dollar markets dry up. An Nomura Research Institute (NRI, 2009) report pointed out that the overall cost of an Asian MTN program would be lower than a Euro MTN program, assuming that issuers raise funds in a local currency and convert into US dollars through a cross-currency swap (synthetic US dollar funding) in a favorable LCY market. **Figure 3-18** shows the alternative aspects of the local market where local issuance has increased since mid-2007 when global financial market conditions began to worsen.

For example, KEXIM issued MYR1 billion in conventional MTNs in March 2008 in line with the path followed by ACNP in Malaysia. This was the first issue of KEXIM's MYR3 billion multi-currency conventional and Islamic MTN program, and represents the first issue by a Korean entity in the Malaysian ringgit debt market. KEXIM also issued MYR22 million in MTNs in February 2009.

[32] Shelf registration with the SEC registration can be used to bring down notes as needed. The distribution of shelf notes can involve both institutional and retail investors in the US. A Euro MTN program can be utilized without SEC registration. Listing in a reputable stock exchange in Europe or Asia, a Euro MTN program can be set up for frequent issuers. A Rule 144A option or capability can be included into the program offering circular to allow distribution to Qualified Institutional Buyers (QIB). Distribution to retail investors is not possible.

Figure 3-18: Issue Amount: Global Market Issue vs. Local Market Issue by Asian Entities



Source: NRI (2009)

If there is a common regional MTN program and a corporate can issue whenever and wherever issue condition is favorable to them, bond markets are expected to expand. However, only a few economies in the region (e.g., Singapore and Hong Kong, China) allow flexible domestic and international MTN issue[33]. The efficient and quick implementation of an Asian MTN program requires critically private placement and simplified issuance procedures (e.g., shelf registration). In addition accessibility by non-resident issuers, bankruptcy law, clearing and linkage to global clearing and settlement system are essential requirements for cross-border MTN transaction in the region.

Table 3-31: Institutional Requirements of MTN Program

Relevant Regulatory Infrastructure	Eligibility for MTN Program	Overview of ASEAN+3 Market
1) corporate bond issuance procedure	Procedure of corporate bond issuance is available	N/A:2
2) Simplified procedure of issuance	Simplified procedure without registration of issuance (shelf-registration) and private placement is available for resident issuers	N/A:5
3) Accessibility by nonresident issuers	Simplified procedure is available for nonresident issuers	N/A:6
4) Bankruptcy law	Legal background for bankruptcy is available	N/A:0
5) Clearing and Settlement	Central clearing and settlement system for corporate bonds is available	N/A:4
6) Linkage to global clearing and settlement system	Linkage to global clearing and settlement is available	N/A:8

Source: NRI (2009)

[33] Linkage to global clearing and settlement system is required to enable issuance onshore and offshore with one program. International offshore bonds are settled through ICSDs such as Euroclear and Clearstream, while domestic bonds are settled through domestic CSDs.

3.4.3. Asian Inter-Regional Professional Security Market

Inukai (2008) has proposed the establishment of an Asian Inter-Regional Professional Securities Market (AIR-PSM) as a common international bond market in Asia[34]. Given that there is no financial infrastructure facilitating the circulation of Asian savings within the region, Asia needs to develop an inter-regional, cross-border market functioning like a Eurobond market. The development of a free and self-regulated market in Asia would be timely because the EU has tightened regulations and reduced the freedom of the Eurobond market, which has traditionally been regarded as freely accessible market, through recent EU directives.[35]

Under the EU's Prospectus Directive and Transparency Directive, prohibitive costs will result from re-stating and preparing financial information to International Financial Reporting Standards (IFRS), or from providing a gap summary between local accounting standards and IFRS. Many Asian issuers have shifted their bond listing from stock exchanges in Europe to Asian exchanges such as SGX whose market practices are not required to observe EU directives and ICMA rules and recommendations. In response to this shift, the London Stock Exchange (LSE) launched a new alternative market—the Professional Securities Market—which is not subject to EU directives but rather is regulated by the LSE.

In line with the LSE's Professional Securities Market and offering advantages of the Eurobond market, the proposed AIR-PSM would not be subject to domestic jurisdiction. AIR-PSM would co-exist with respective domestic markets in the region and bring together professional market players under a common set of rules and regulations. Proponents suggest it would be necessary to establish a regional SRO to set common rules that effectively promote market efficiency and investor protection. AIR-PSM and self-regulations set by Asian professionals would help to create financial innovation and facilitate market development in the region.. To further develop this proposal, in-depth discussions are required among market participants, governments, and the regulatory authorities.

3.5 Assessment of the program and proposal

Bond markets in Asia have grown steadily in recent years, led by individual

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[34] Inukai, Shigehito (2008) *Grand Design for an Asian Inter-regional Professional Securities Market,* LexisNexis

[35] The Prospectus Directive created a single EU-wide regime governing the content, format, approval, and publication requirements for disclosure and offering documents with regard to securities offerings in the European Economic Area (EEA). The Market Abuse Directive (MAD) established rules prohibiting insider dealing and market manipulation. MAD applies to all financial instruments that are under the auspices of a competent authority of an EU member state. MAD is a minimum harmonization directive, meaning that it provides minimum standards of conduct with respect to financial instruments, which enables each EEA member state to freely implement more stringent provisions into its national jurisdiction. The Transparency Directive (TD) applies to companies whose securities are listed on an EEA-regulated market and their shareholders. The TD is also a minimum harmonization directive that allows individual member countries to adopt additional provisions. The Markets in Financial Instruments Directive (MIFID), which superseded the previous Investment Services Directive, established high-level provisions to govern business requirements that apply to financial institutions and harmonized certain conditions to govern the operation of regulated financial markets. MIFID is a maximum harmonization directive, which means that with a few limited exceptions a member country may not impose more stringent rules than MIFID prescribes.

government efforts and regional financial cooperation under the ABMI and ABF. This growth can help mitigate the currency mismatch or “double mismatch” problem, which was one of the major drivers of the 1997/98 Asian financial crisis. However, as seen during the recent global financial turmoil, the high level of Asian savings has not been effectively circulated within the region and was instead mainly channeled into advanced financial markets in the US and Europe, leading to a global macro imbalance. Western countries have pointed to this global macro imbalance (i.e., huge trade surpluses by Asian countries) as a major driver of the global financial crisis. While this contention is debatable, addressing the global macro imbalance would require countries with huge trade surpluses to rebalance their economies. In addition to re-balancing, Asian countries should develop a regional mechanism and infrastructure to circulate Asian savings at the regional as well as domestic level.

Existing program and proposals are trying to address the issue. However, there are some considerations to be made. ACNP program is solely for ADB, thus, it cannot be used for corporate bond issuance; ASEAN MTN program is for ASEAN, thus, it needs to examine the case is also applicable to China and Korea; AIR-PSM is an interesting idea, but it needs a good strategy to be materialized.

Table 3-32: Assessment of the program and proposal

	What has been achieved	What can be achieved
ACNP program	The ACNP can play a meaningful role in paving the way for a standard platform which can be common to issue multi-Asian currencies with the settlement of domestic CSDs in the region.	If Asian countries would agree to partially liberalize their local currencies and allow foreign issuers to settle through domestic CSDs with certain conditions, then the flexibility of an Asian currency MTN program could be fully utilized
ASEAN MTN program	To establish an Asian MTN program a simplified procedure such as shelf registration and private placement could be introduced in each domestic market and then foreign issuers would be allowed to participate in domestic markets for their fund-raising (e.g., the Malaysia ringgit MTN market)	To fully utilize the flexibility of Asian MTNs, more Asian currencies can be programmed into MTN issuance with the partial liberalization of Asian local currencies. In addition a flexible market can be created to enable issuance onshore and offshore through one program such as the Singapore MTN program
AIR-PSM	Inukai (2008) proposed the concept of AIR-PSM, which is an Asian version of the Eurobond market, as an alternative and complement to the Eurobond market in order to circulate Asian savings intra-regionally while utilizing existing market infrastructure such as domestic CSDs for cross-border securities settlement by linkage.	To implement this idea, the most important requirement is the establishment of a common forum to bring together the public and market participants for in-depth discussions to identify existing impediments to establishing an Asian common bond market as well as to establish common Asian integrated bond market for professional market players.

3.6. Proposal for top down approach: inter-regional offshore private placement corporate bond market for professional market players

Most Asian countries have first built up their domestic bond markets and related mark et infrastructure. The regional financial initiatives have focused on developing domestic bond markets to mitigate the double mismatch problem. The next step would be the development

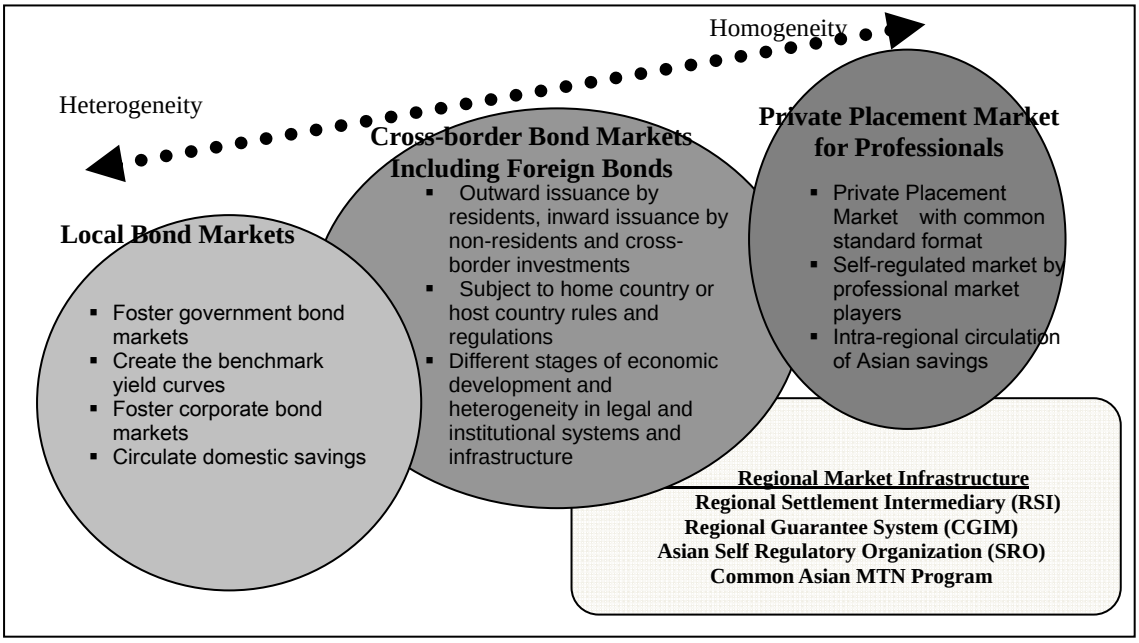
of an Asian common international market that facilitates the utilization of Asian savings intra -regionally.

With stronger regional cooperation and coordination, it would be possible to establish an integrated Asian offshore common market—an Asian version of the Eurobond market—since it is not feasible to integrate all domestic markets across the region into a single jurisdiction. This is especially true for primary government bond markets that are generally subject to national operation and tightly regulated by central banks and finance ministers—since they play a role in monetary policy and financial and macroeconomic stability—to ensure favorable economic conditions for the continuous issuance of government bonds.

In the case of corporate bonds, on the contrary to government bonds, it is more reasonable and effective to create a common international bond market through the offshore integration approach, as harmonization of different rules and regulations in each country is not required. This is what is happening in Europe; the European experience of market integration offers the possibility of bond market harmonization and integration of fragmented Asian bond markets by focusing on corporate bond offshore markets.

In terms of development sequence, it is considered desirable to first develop a country's domestic bond market, open it to foreign investors, and then introduce integrated onshore markets or an integrated offshore regional market. For those countries with relatively developed domestic bond markets, it is recommended that they also promote the development of cross-border or Asian common international (offshore) bond markets simultaneously, considering that Asian financial markets are becoming more integrated with global markets.

Figure 3-19: Sequence of Bond Markets Development in Asia



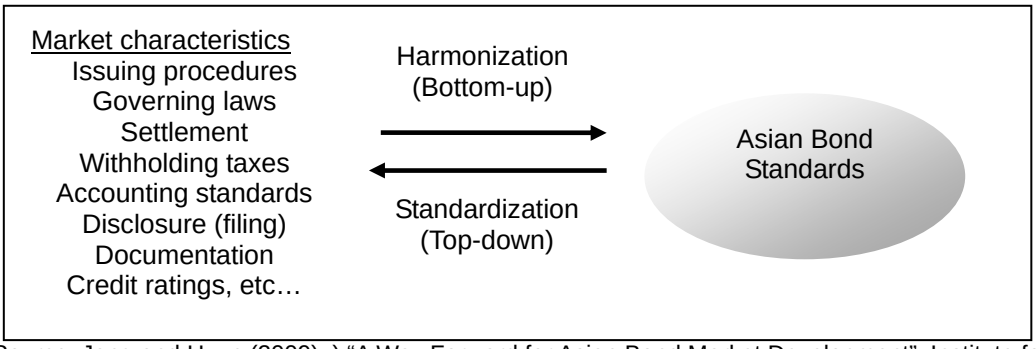
To materialize, stronger regional financial cooperation and political commitment are necessary to harmonize various domestic bond standards and to design an efficient regional regulatory framework that can be applied to integrated financial markets across jurisdictions. It would be also necessary to establish linkages among market infrastructure across various

jurisdictions and to relax or remove non-supervisory restrictions on access by foreign financial intermediaries into domestic financial markets. In parallel, an SRO that could provide rules and guidelines for professional market players needs to be developed. As the markets develop, an integrated Asian financial market could be established by relaxing the statutory restrictions on Asian local currency and cross-border capital flows. An Asian common market would allow savers and investors access to any investment vehicle and financial resources regardless of geographic location. It would enable Asian issuers to raise funds under a common bond issuance program at a low cost and would offer Asian investors more opportunities to freely access Asian-currency-denominated bonds. The following sections will discuss further.

3.6.2. How to integrate Asia's fragmented bond markets

In order to create a regionally integrated bond market, the different regulations and market systems across countries would need to be harmonized. In general, there are two approaches to harmonize financial markets. Harmonizing regulations and practices one by one, step by step, this can be called bottom-up approach. On the other hand, there is top-down-approach, which harmonizes and establishes common standards and applies them to all markets **(Figure 3-20)**.

Figure 3-20: Asian Bond Standards as a Common Platform



Source: Jang and Hyun (2009).) "A Way Forward for Asian Bond Market Development", Institute for Monetary and Economic Research, The Bank of Korea

In Asia, there is no international regulation setting body to create regulations and enforce across the region, therefore, domestic regulations can be harmonized only through bottom-up approach. On the other hand, there is not jurisdiction over offshore market; therefore, single rule can be applied to the market. In other words, top-down approach is possible if we consider harmonization through offshore market.

Jang and Hyun (2009) **(Table 3-33)** compared the two, on-shore integration and offshore integration. According to them, offshore integration has advantage over on-shore integration as on-shore integration will be politically very difficult. It may be unrealistic, at least at this stage, to adopt bottom-up approach, given the various stages of bond market developments in the region. It will require enormous coordination to agree on harmonizing national regulations.

On the other hand, political cost of top-down approach through offshore market may be small compared to the bottom-up approach because offshore transactions are generally

not subject to one country's jurisdiction. However, it may be difficult to establish common rules and practices to be applied in all markets from the beginning because some of the ASEAN+3 countries may consider they are not ready to open their markets.

Table 3-33: Rule Choices for Cross-Border Public Securities Transactions

	On-shore Integration	**Off-shore Integration**
Cost	Low (same rules everywhere)	Low (same rules everywhere)
Political Difficulty	Highest	Medium
Enforcement Difficulty	High (to insure consistency)	Low (one country)
Flexibility	Low (one size problem)	High (multiple off-shores)
Integration	Harmonization (bottom-up approach)	Standardization (top-down approach)

Source: Jang and Hyun (2009).

3.6.3. Strategy to establish a common market: learning from European experiences

To consider the strategy for market integration in Asia, it is worth learning the experience in the EU despite substantial historical and political differences. First, in terms of institution building to facilitate the process of market integration, it is necessary to have a transnational entity responsible for monitoring progress and working towards the goal of integration. It is also important to have the right set of people within the entity. To achieve a compromise, it is necessary to establish a common understanding of relevant issues among members, who should possess the expertise and authority to make decisions. In addition, the transnational entity should closely coordinate with industry and governments. Unlike Europe, Asia does not have a political body or institution to facilitate efficient decision making in the integration process. Therefore, it is desirable and necessary for ADB to play a catalytic role in the region and to act as a stronger secretariat. In the initial stage of market integration, a regional forum such as ABMF, which brings together Asian regulators, supervisors, and market participants, can play an important role in exchanging information and coordinating different regulators and supervisors. Later, it might even evolve into an Asian Union or Asian Common Community.

Second, it is necessary in building up a regional integrated common market to liberalize the movement of trade, services, capital, and labor; and to establish common market practices. In Asia, market integration has been led by the creation of a free trade area prior to monetary cooperation and regional financial integration, while in Europe efforts for monetary cooperation such as the European Monetary System were made prior to the removal of controls on cross-border capital flows. To facilitate market integration through harmonization, it is not sufficient to focus only on regulations and the legal framework. Establishment of common market practices is equally important.

Third, the European experience of financial market integration shows the importance of understanding the legal and social traditions in each country because the interpretation and application of regulation is based on such tradition and culture. For example, in the UK, market players may feel that they can do whatever is not explicitly forbidden based on the philosophical principle that people should be free from undue interference from the state. On the other hand, in France, stronger intervention by the state is often justified. Therefore, market harmonization includes the work of bridging different cultures and traditions. Fortunately, in Asia, many countries are relatively new political entities and their legal and social traditions are still under construction. Therefore, it may be easier, in comparison to the EU, if the harmonization and integration is carefully designed and well-coordinated

Fourth, it is strategically better to consider harmonization of financial market from the wholesale, as opposed to retail, point of view. For example, large financial institutions tend to agree on harmonizing various market practices because they face cross-border issues more seriously, but small financial institutions tend to resist changes in domestic rules. Although the EU has been committed to creating a single financial market for a number of years, it is not easy to actually establish an integrated financial market. The wholesale market is relatively easier because participants can see benefits of harmonization and integration. On the other hand, retail markets have a home country bias. Hence, it is not easy to show the merits of harmonization and integration. Retail investor protection can be varied and requirements for retail products, such as financial reporting requirements, are still very different across jurisdictions. Retail investors tend to choose domestic institutions due to language, local networks, and familiarity. It is inevitable that their interests are different from those of wholesale investors. Likewise, it is better to start harmonization of bond markets from secondary markets rather than primary markets. Particularly, the harmonization of government bond primary markets is difficult because it is closely related to fiscal policy.

3.6.4. Common inter-regional offshore private placement corporate bond market for professional market players

As we examined above, Asian markets are heterogeneous and different in stages of developments. It is also natural for Asian countries to be cautious given the experience of financial market volatility affecting the real economies of the region. But it is equally important that market integration will bring large benefits and prudent approach should not undermine efficient funding and investment by regional players. There must be a way to balance national preference and prudence with a careful design to establish a regional international bond market to more efficiently channel regional savings. To consider, there are six key words; (i) offshore; (ii) corporate, (iii) private placement; (iv) professionals, (v) liberalization, and (vi) gradual.

First, the market needs to be defined as an offshore because coordination of national regulations is too difficult.

Second, the market should target corporate bonds, not government bonds because government bonds are very much related to sovereignty. Even EU cannot harmonize their primary government bond markets yet.

Third, the market needs to be private placement, which is based on peer to peer contract and not subject to a single country’s jurisdiction, so as to avoid differences in disclosure rules and regulations across the region.

Fourth, the participating scope of the market would be confined to professionals. Limiting the number of participants in the market might help lessen authorities' concerns that this offshore market would become a substitute for domestic markets. By providing certain assurance, authorities might relax regulations. This is also necessary because it enables the professionals to create their own market rules, which avoid multi-jurisdictional problems, to fully utilize their expertise and experience. Therefore, this private placement market would be confined to professional (qualified or sophisticated) investors and to sovereign, quasi-sovereign, and first-rating issuers. Less stringent disclosure requirements and weaker legal protection in this market might be of concern to investors for offerings by less-recognized issuers. Therefore, issuers should also be limited to first-rating issuers. Disclosure to professional investors would make them aware that the cross-border transactions being conducted are not subject to (or exempt from) national regulations in each country.

Fifth, it is necessary to relax capital flow controls for offshore transactions that would attract more global investors as well as regional investors. This market could facilitate timely bond issuance in order to promote cross-border transactions in the region. Currencies of countries participating in this offshore market should be partially liberalized to facilitate more intra-regional financial transactions and develop financial markets in the region.

Finally, given the diversity of economic/financial development in the region, the integration can be gradual, allowing the member countries to join when they are ready. The core standard (minimum harmonization) that all participating countries agree upon would be applied to all members, with some degree of flexibility, in a stepwise approach that considers individual economic environments and stages of development. A country that could not apply the core standard immediately would be required to provide a timetable and plan for its eventual application. Likewise, countries with various regulatory restrictions could move towards liberalization by providing a timetable that includes steps to liberalization. In this way, a harmonized regional framework can be established in a step-by-step manner.

Table 3-34: Stepwise Approach

	1st stage	2nd stage
Participating countries	Developed countries	Less developed countries
Issuers	Quasi government institutions	High rating corporations
Investors	Professional investors	

4. Partial harmonization through common standards and mutual recognition

To harmonize regulations and market practices in ASEAN+3, the dual approach was proposed in the previous sections. One approach is the bottom-up approach which harmonizes regulations in entire region one by one, step by step. To do so, we proposed to focus on secondary market because primary market, particularly of government bond market is not easy to harmonize as each government wants to maintain their preference in public financing. The other approach is the holistic and top-down approach to create common market practices in Asian offshore markets. The approach can avoid conflicts of national laws and regulations in ASEAN+3 countries as it is offshore. In addition, the market practices, guideline, and rules will be created by self-regulatory organizations. To begin with, it is proposed in the previous section to start considering a particular issuance program which can provide a new opportunity for Asian issuers and investors in comparison to the existing Eurobond program.

In addition to the dual approach, it is also possible to consider a gradual and partial harmonization approach which harmonizes and standardizes regulations and rules by establishing common standards and through mutual recognition among agreeable member states. This can be done if the member states share the same regulations or similar legal backgrounds. The process is gradual because there are large differences in legal systems and regulations in ASEAN+3. Besides, the stages of market developments are very much different from one country to another in the region. But, with the same ultimate goals in our mind, it is possible to start harmonization through mutual recognition and establishing common standards wherever possible. Notably, this approach has already been taken in ASEAN. ASEAN Capital Market Forum (ACMF), which is comprised of ASEAN capital market regulators, proposed common capital market disclosure standards for cross-border offerings of securities called ASEAN and Plus Standards Scheme. It is worth considering extension of the approach to the plus three countries.

It is also important to recognize that setting common standards in the region is a process to establish common goals among the member states. The common standards should provide a good guidance for the member states which need further market developments.

4.1 Setting sub-regional common standards to lead harmonization

As a leading case, ASEAN has already made a precedent to set common standards for their market integration. ASEAN Capital Market Forum (ACMF)[36], comprised of ten ASEAN capital market regulators, developed a common standard scheme called ASEAN and Plus Standards Scheme to facilitate cross–border offerings of securities within the ASEAN region. The Scheme is expected to reduce costs and facilitate cross-border issuance within ASEAN. The Scheme will benefit ASEAN and non-ASEAN issuers who make multi-jurisdiction offerings of plain equity and debt securities within ASEAN.

The Scheme has two levels of Standards, comprising a set of common ASEAN Standards, and a set of limited additional standards known as the Plus Standards. The ASEAN Standards are based on the standards on cross-border offerings set by the International Organization of Securities Commissions (IOSCO). However, the ASEAN Standards do exceed some of the IOSCO standards where appropriate. They also fully

[36] ACMF was established in 2004 under the auspices of the ASEAN Finance Ministers. The ACMF initially focused on harmonization of rules and regulations before shifting towards more strategic issues to achieve greater integration of the region's capital markets under the AEC Blueprint 2015.

adopt the accounting and auditing standards of the International Financial Reporting Standards (IFRS) and International Standards on Auditing (ISA). To date, ASEAN Equity Disclosure Standard and ASEAN Debt Securities Disclosure Standards have been published as the ASEAN Standards.

The Plus Standards contain additional standards that are required by some ASEAN jurisdictions due to their individual market practices, laws or regulations. For example, Malaysian issuers who consider cross-border offerings in Singapore and Thailand are required to comply with one common set of ASEAN Standards in their preparations of disclosure documents, together with some additional requirements in the Plus Standards of Singapore and Thailand.

The Plus Standards may create additional work, but in comparison to the current practices where issuers have to separately comply with each jurisdiction's disclosure requirements when they seek multi-jurisdiction offerings, it is expected to reduce issuers' documentation burden. It can also be said that the ASEAN and Plus Standards Scheme clarifies what are the same and what are different in regulations in respective countries. It is hoped that these improvements enable more flexible issuance within the region.

To improve the situation, the ACMF has agreed to reduce the number of Plus Standards through their periodic reviews. It is their goal to achieve greater harmonization over time to provide maximum benefits to issuers. It is expected that the ASEAN and Plus Standards Scheme will propel ASEAN capital markets towards greater convergence of the disclosure standards.

On 12 June 2009, Singapore, Thailand and Malaysia have announced the implementation of the Scheme under their respective jurisdictions. Other countries will join the Scheme when they are ready. The timeframe for the implementation of the Scheme throughout the region depends on the readiness of each ASEAN member.

4.2 Mutual recognition to support market integration

The ACMF recognizes mutual recognition is one very important way to harmonize the markets. Under the Implementation Plan by the ACMF endorsed by ASEAN Finance Ministers' Meeting in Pattaya, Thailand on April 9 2009, mutual recognition is placed as the core strategy of the Plan. In the Implementation Plan, mutual recognition process is expected to expand gradually in its scope and country coverage, supported by efforts to liberalize capital account restrictions and to reform tax system, the establishment of trading and settlement system alliances and infrastructure, and a strengthened coordination and monitoring processes at both regional and country levels to support implementation.

Given the differing levels of capital market development and readiness among ASEAN countries, the ACMF proposes gradual and stepwise approach. The mutual recognition initiatives should be implemented bilaterally first and then multilaterally as other countries become ready to join in. In addition, the mutual recognition should start from wholesale; it is often easier to relax restrictions on non-retail investors, who can look after themselves and need less protection than retail investors. Therefore, it may be feasible to make cross-border products and services available first to non-retail investors and then to retail investors when adequate protections are in place.

Under the Implementation Plan, the mutual recognition and harmonization framework for ASEAN is expected to cover the following four areas of cross-border activities.

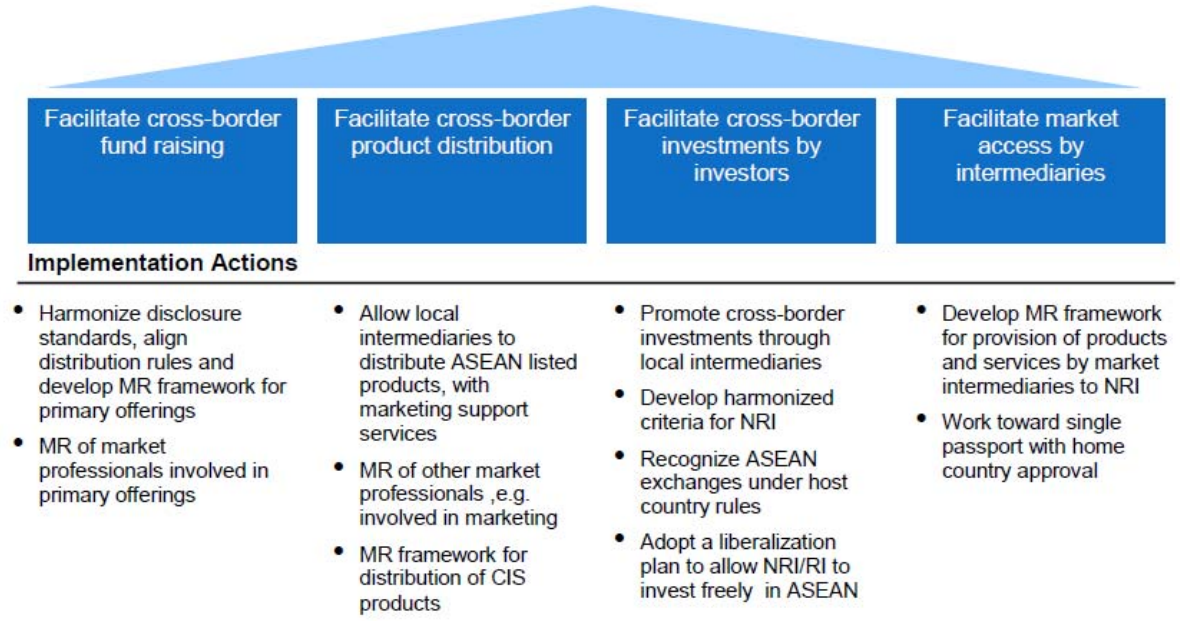
First, to facilitate cross-border fundraising activities, it is proposed to harmonize disclosure standards, align distribution rules and develop mutual recognition framework for primary offerings. In addition, it is proposed to have mutual recognition of market professionals involved in primary offerings.

Second, to facilitate cross-border distribution of products, such as those listed on ASEAN exchanges, Islamic products and collective investment schemes (CIS), it is proposed to allow local intermediaries to distribute ASEAN listed products, with marketing support services. In addition, mutual recognition of other market professionals involved in marketing and mutual recognition framework for distribution of CIS products are proposed.

Third, to facilitate investments by investors in ASEAN, it is proposed to promote cross-border investments through local intermediaries by (i) developing harmonized criteria for non-retail investors, (ii) recognizing ASEAN exchanges under host country rules, and (iii) adopting a liberalization plan to allow non-retail and retail investors to invest freely in ASEAN.

Finally, to facilitate market access by market intermediaries, it is proposed to have mutual recognition framework for provision of products and services by market intermediaries to non-retail investors. In addition, work toward single passport with home country approval is proposed.

Table 4-35: Mutual Recognition and Harmonization Framework



Source: The Implementation Plan (2008) by ASEAN Capital Markets Forum (ACMF)

4.3 Obstacles and problems to be cleared

Although ASEAN has started their initiative, it is not easy to introduce the same approach in entire ASEAN+3 region. While ASEAN is moving towards ASEAN Economic Community in 2015 and policy makers are considering market integration seriously, the momentum for market integration in ASEAN+3 is not acute as ASEAN. The stages of market

developments are different and priorities for policy makers are more diverse.

Even in ASEAN, the proposed approach is gradual and stepwise. The mutual recognition initiatives should be implemented bilaterally first and then multilaterally as other countries become ready to join in. The common standards will be introduced wherever possible, and other countries will join the Scheme when they are ready.

Having said, however, the partial harmonization through establishing common standards and mutual recognition is a plausible approach. If ASEAN can successfully integrate their markets, it is very likely for the plus three countries to consider joining the same framework. Although the area of regulations which can be agreed as common standards may be limited, it will lead further harmonization. Even if there are large national differences in ASEAN+3 countries, the approach by ASEAN and Plus Standards Scheme can be introduced in ASEAN+3. The approach can reduce documentation burden by having the common format. At least, the approach will clarify similarity and differences in offering rules of ASEAN+3 countries.

To start, it is necessary to have clear and comprehensive mapping of regulations and market rules, then, we can start discussion of partial harmonization. At this stage, it is not clear which regulations and rules can be mutually recognized or what needs to be changed to make common standards. After successful mapping of regulations, we should be able to prioritize and consider sequencing of harmonization.

In addition, it is necessary to establish common ultimate goals of the region. The goals and ultimate image of market integration must be shared by the all members. Otherwise, partial harmonization would create additional hurdles for entire harmonization of regulations in ASEAN+3.

5. Impact of the financial crisis on the security regulatory regime

The recent global financial turmoil has provoked international discussions among the Group of Twenty countries (G20) and within the Financial Stability Board (FSB) on how to set the future direction of financial regulation and supervision, and realize improved international cooperation. The outcome of these discussions will have considerable impact across national borders on the manner in which governments regulate their domestic financial markets.

Financial markets in most Asian countries are still strictly regulated compared to those in advanced economies. There is ample room for liberalization and deregulation to further develop Asian bond markets. Therefore, Asian regulators should work together to identify those areas in which regulation or deregulation is most needed, rather than attempt a series of ad hoc or unilateral responses to the current financial turmoil. Cooperation and information-sharing among regulators and self-regulatory organizations (SROs), such as industry associations and exchanges, and strong political commitment can facilitate development of an effective regulatory framework for Asia to protect investors and prevent systemic risk in cross-border transactions.

This section will focus briefly on the discussions of financial regulatory regimes, including self-regulation in EU, UK and US. The impact of the financial crisis on basic principles of securities regulations will be examined, including the relationship between regulators and market players, concepts of self-regulation, and a possible shift in the regulatory focus of regional authorities. The study will also review models for securities dealers associations in the region to work with each other in promoting cross-border transactions and harmonizing bond standards.

5.1. What went wrong and what are the lessons to be learned?

Global macro-economic imbalances (e.g., the trade imbalance between Asia and the United States [US]) are usually identified as one of the major causes of the global financial crisis. However, the trade imbalance was not the origin of the crisis. Inappropriate risk management in the form of unwise investments in complicated financial products without an exact understanding of these products was the fundamental cause. In response to the crisis, various regulatory measures have been discussed, including capital requirements, liquidity ratios, restraints on bonuses in the banking industry, and leverage ratios, among others. For example, Spain's successful experience in forcing banks to accumulate additional reserves during boom times may seem attractive to regulators. However, the question remains of how much will be enough to stave off another crisis in the future. It is also not clear what level of liquidity is ideal. Capping the leverage ratio may not be appropriate as this does not account for differences in the credit quality of assets and may just push banking activities off of balance sheets. Meanwhile, while bonuses in the banking sector may be excessive, the fundamental problem is whether management fully understands investment risks or at least recognizes that they do not fully understand such risks. In short, there is a wide chasm between reality and the ideal when it comes to reform in the wake of the global financial crisis.

The financial crisis revealed serious deficiencies in financial regulations. In particular, the United Kingdoms' (UK) Financial Services Authority (FSA) must be forced to review the concept of "principle-based regulation." While the FSA might argue that the so-called "light-touch regulation" facilitated market innovation, it also created excessive and extreme financial transactions. It is inevitable that in the future financial supervision will be more

intrusive and rules-based. In addition, outcome, and not just interpretation, will be more seriously checked based on regulatory principles. Under the principle-based approach, the right to interpret these principles was given equally to the public and private sectors, which led to a looser interpretation. It is expected that some degree of freedom to interpret regulation will be restrained.

In reaction to the financial crisis, interesting new proposals have emerged. For example, one proposal would restrict the financial industry from committing financial transactions that are not socially useful. Subprime mortgage securitizations increased opportunities for low-income wage earners to buy houses. They thus could be considered socially beneficial in principle. At a certain stage, however, they became useless in terms of social usefulness because the securitization led overinvestment. The question is how and where a line can be drawn. Another interesting question is whether the intellectual property rights of a new financial product should be recognized. The securitization of subprime loans appeared sound when first introduced, but as the competition increased and similar products were sold by competitors the quality of the underlying assets deteriorated. If the intellectual property rights of this new financial product had been recognized and protected, competitive pressures might have been eased and the deterioration in asset quality could possibly have been managed more properly.

5.1.1. Europe[37]

1) New European financial supervision system and the role of ESMA

Based on the report of the de Larosiere Group,[38] the European Commission has proposed transforming the current Level 3 committees[39] which were advisory bodies to the Commission into three European Supervisory Authorities: a European Banking Authority (EBA), a European Insurance and Occupational Pensions Authority (EIOPA), and a European Securities Markets Authority (ESMA). Each new advisory body will have a distinct legal identity. Specifically, the Committee of European Securities Regulators (CESR) will be transformed to into a European Securities Market Authority (ESMA). The group's report concluded that while supervision in Europe is still uneven and often uncoordinated, financial markets are integrated and financial institutions operate across borders. The report recognized the need for convergence among the member states on technical rules and a mechanism for ensuring agreement and coordination among national supervisors of similar cross-border institutions, perhaps through a college of supervisors. The report also proposed coordinated decision making in emergency situations and a rapid and effective mechanism to ensure the consistent application of rules. The current financial services advisory committees were found to be ill-equipped to carry out these functions.

Financial services committees at the European Union (EU) level have advisory powers and can issue non-binding guidelines and recommendations. National supervisors of cross-border groups must co-operate within colleges of supervisors. If they cannot agree, there is no mechanism to resolve the issue. Many technical rules are determined at the member state level, with considerable variation among member states. Even where rules are

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[37] European Union Committee (2009), *The Future of EU Financial Regulation and Supervision*

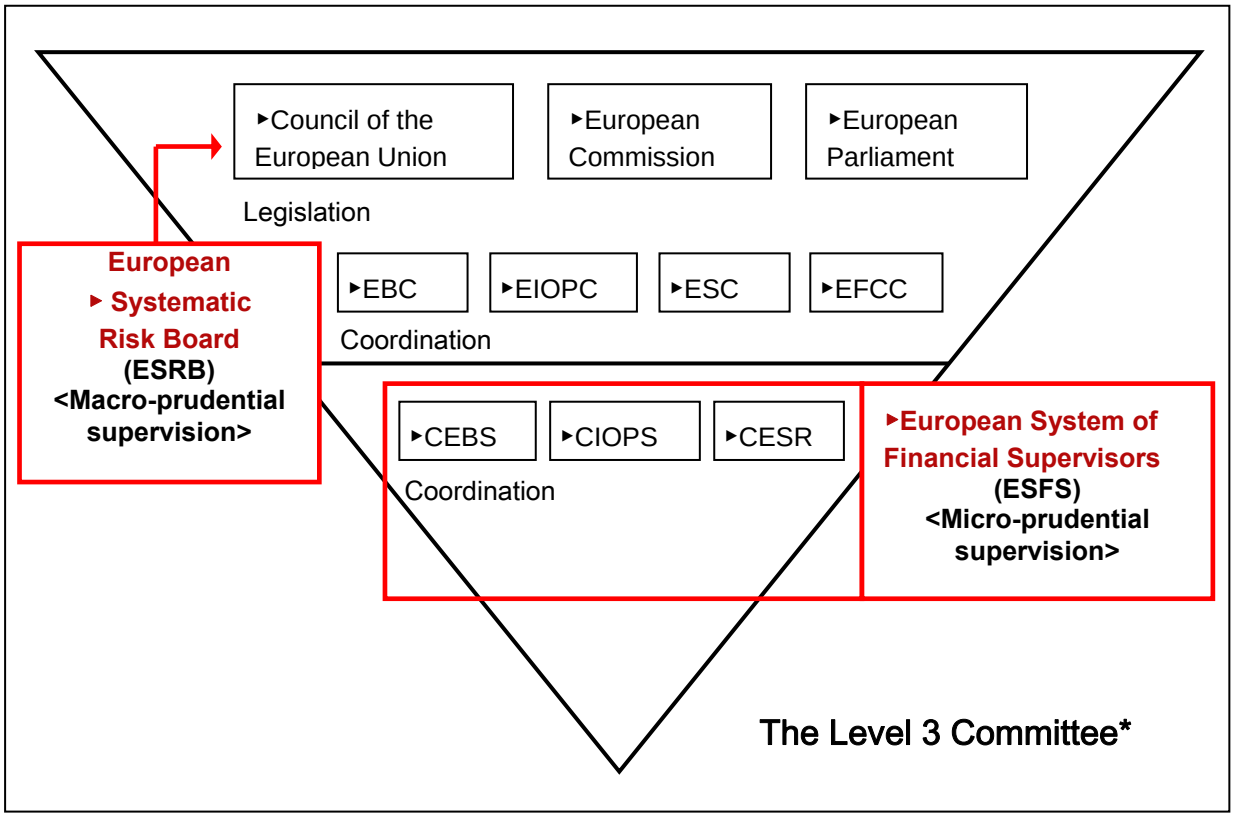
[38] In October 2008, the European Commission mandated a high-level group chaired by Jacques de Larosière to give advice on the future of European financial regulation and supervision. The group presented its report on 25 February 2009 and its recommendations were endorsed by the European Commission in its Communication to the Spring European Council of March 2009.

[39] Committee of European Banking Supervisors (CEBS), Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS), and the Committee of European Securities Regulators (CESR).

harmonized, their application can be inconsistent. The fragmented supervision undermines the single market, imposes extra costs on financial institutions, and increases the likelihood of failure of financial institutions with the potential for additional costs for taxpayers.

The new European Supervisory Authorities will have much strengthened powers to intervene and enforce a decision. The current financial services committees have coordinated communication among the members, but their roles will become much clearer under the new authorities. In addition, the new authorities will compile a common rulebook by developing technical standards and drawing up interpretative guidelines to assist national authorities in making individual decisions. CESR is currently elaborating the list of technical areas in which the new Authorities need to play a stronger role. It will be critically important to strike a balance between the authorities and national supervisors in financial supervisory policies. ESMA will also exercise direct supervisory authority over credit rating agencies and possibly derivatives markets as well.

Figure 5-21: Financial Regulatory Framework in Europe



Source: summarized from various sources.
EBC = European Banking Committee, EFCC = European Financial Conglomerates Committee, EIOPC = European Insurance & Occupational Pensions Committee, ESC = European Securities Committee

2) Regulatory gaps and cross-sectoral financial supervision

The Level 3 Committees have had regular joint meetings since before the US subprime crisis to cope with problems arising in gray areas even. After the crisis, a cross-sector risk group was created as a joint committee to review inter-sectoral propagation of

risks (contagion) and the unintended effect of supervision on other sectors. It was tasked with identifying areas that are not covered by the existing supervision yet are still vulnerable to the proliferation of risk. Through this exercise, it was recognized that regulators should pay more attention to the impact and influence of their actions on other sectors. To achieve this, the mindset of regulators needs to be changed to be more cross-sectoral. As for the retail versus wholesale markets, Europe has not observed clear market failure in wholesale markets. As for sophisticated retail financial products, the European Commission will continue to strengthen transparency and disclosure requirements in line with two consultative papers on transparency that it issued in 2007 and 2009.

3) Market harmonization and integration

In Europe, regulations are still promulgated at the national level and licensing is based on mutual recognition among national regulators. In addition, the resolution of financial institutions must be dealt with nationally. The challenge for supervisors is in coping with financial activities that are increasingly taking place across borders, while their authority and tools are still designed towards the national level. Ring fencing may partially protect domestic markets, but it does not provide an answer for cross-border banking activities.

The new ESMA will work for a common rulebook for security markets, but the task will not be easy. This is because interpretation of regulations and laws may be closely related to national values, tradition, or personal life styles, which all EU member states agree to observe as an important part of their respective heritage. For example, operating hours for retail shops may be tied to religious practices; a preference for equities over bonds, or deposits over bonds, may be related to domestic risk perceptions and preferences. In the UK, individual investors tend to invest in equities but they seldom invest in bonds, while in continental Europe individual investors invest in bonds. Therefore, the necessary framework for investor protection may be different from one country to another. Also, in Germany, regulations must be clearly written, otherwise the regulators cannot prohibit or control financial activities. In such a diverse environment, it is very difficult to introduce the concept of principle-based regulation.

In spite of the difficulties mentioned above, there is optimism among the European Commission and CESR staff. While their goals cannot be achieved immediately, they believe they can reach meaningful agreements in a stepwise manner. This optimism seems to be backed by the confidence established through discussions at various levels within the EU, which was also a necessary component of the effort to create a single currency and manage a common response to the recent financial crisis.

The European Commission has adopted new legislative proposals to strengthen the supervision of the financial sector in Europe. According to the proposals, two new institutions will be created: a European Systemic Risk Board (ESRB) for macro-prudential supervision and a European System of Financial Supervisors (ESFS) for micro-prudential supervision.

Function of the ESRB[40]

The ESRB will monitor and assess risks to the stability of the EU financial system as a whole, provide early warning of systemic risks, and issue recommendations for remedial actions. This can cover a range of areas: from the financial health of banks to the potential

[40] European Commission. 2009. *New financial supervision architecture: Q&A on the European Systemic Risk Board/The macro-supervision part of the package*.

existence of asset bubbles and the smooth functioning of market infrastructure. The ESRB will have to identify all potential risks and prioritize them before issuing warnings when it believes the risks are significant.

The main decision-making body of the ESRB, the General Board, will comprise governors of all 27 national central banks, the President and Vice President of the European Central Bank, the chairpersons of the three newly established European Supervisory Authorities, and a member of the European Commission. Representatives of each national supervisory authority and the Chairperson of the Economic and Financial Committee will participate as observers.

If the ESRB identifies risks to financial stability it shall issue recommendations to the country or group of countries concerned. If the addressee agrees with ESRB's recommendation, it must communicate the actions that it will undertake to deal with the potential problem. If it does not agree with the recommendation and chooses not to act, the reasons must be properly explained. If the ESRB feels that the explanations are not convincing, it shall inform the EU's Council of Ministers.

Generally, all ESRB recommendations will also be sent to the Council of Ministers. In some cases, the council would be the primary addressee if the warnings or recommendations were issued to the European Union as a whole. But in most cases, the warnings and recommendations will be transmitted to the relevant addressee and to the council. This transmission of warnings and recommendations aims at increasing the moral pressure on the recipient either to take action or justify its inaction. It is expected that ESRB warnings will provide significant incentive for authorities to follow-up on its recommendations or give convincing reasons for not doing so.

To ensure smooth discussion, a steering committee—comprising the ESRB chairperson and vice-chairperson, five central bank officials from ESRB members, chairpersons of the new European Supervisory Authorities, the President of the Economic and Financial Committee (EFC), and the European Commission member—will prepare and organize efficient ESRB operations. In addition to the secretariat, an advisory technical committee under the ESRB can be established, if necessary, to discuss specific issues such as insurance.

Function of the ESFS[41]

The European System of Financial Supervisors (ESFS) will become an operational European network of national financial supervisory authorities, with shared and mutually reinforcing responsibilities, working in tandem with newly established European Supervisory Authorities. These new authorities will (i) develop draft proposals for technical standards to help ensure more consistent rules within the EU that work towards a common rulebook; (ii) facilitate the exchange of information and agreements between national supervisory authorities, and where necessary, settle any disagreements, including within colleges of supervisors, for a more coordinated approach; (iii) contribute to ensuring consistent application of European Community rules; and (iv) coordinate decision-making in emergency situations. While the new European Supervisory Authorities will prepare common rules and technical standards as binding measures, day-to-day operations will remain in the hands of national supervisors. The ESMA will exercise direct supervisory powers over credit rating

[41] European Commission. 2009. *European System of Financial Supervisors (ESFS): Frequently Asked Questions.*

agencies.

The ESFS will be evaluated after 3 years. While it is not possible to pre-judge the outcome of the evaluation, it will provide an opportunity to take stock of how well th e ESFS is performing and whether additional steps need to be taken.

5.1.2. United Kingdom (UK)

It is inevitable that revisions to the European Directives would affect businesses in London. However, such changes would not undermine the competitiveness of the City of London. The competitive advantage of London's markets are not in light regulation, but rather in its vast financial infrastructure, including an intellectual base of legal and accounting experts who can facilitate a range of financial contracts and complex deals.

The gap between the common law tradition in the UK and civil law tradition in continental Europe is still wide, but it is possible to mitigate the effects of this gap. The interpretation and application of regulations are based on the long-lasting legal and social traditions of each individual country. In the UK, market participants may feel they can do whatever is not forbidden, which is in line with a philosophical belief that people should be free from arbitrary interference from the state. On the other hand, in France, more robust involvement by the state into the market is often justified. It will not be easy to close this gap. Cultural differences become even more apparent with respect to consumer and investor protection. But the Europeans have expressed confidence that it will be possible to narrow the gap in the coming years. The accumulation of discussions within the EU seems to be establishing a common understanding. One approach is to reduce a politically sensitive issue to a technical difference, which can be solved through compromise in a professional manner.

The financial crisis demonstrated that the level of information asymmetry between the originators of securitized products and their investors was significant. As a result, it is clear that information related to risks involved in financial products must be disclosed and investors must understand the risks properly. However, the independent Financial Ombudsman Service (FOS) suggests that this may not be sufficient; the notion that more information is always better for investors might need to be reconsidered. Since its establishment, the FOS has received an increasing number of queries and complaints from consumers feeling overwhelmed by the information being provided to them. Although it is still an open question as to what extent financial products are similar to airplanes or automobiles, the financial industry might still need to reconsider its current approach. As long as consumers are dissatisfied, the industry will continue to be asked to improve its provision of information. However, this can lead to a vicious cycle: the more information that is provided on financial products, the more consumers might come to recognize their complexity without completely understanding them, which might only further fuel anxiety.

The new Conservative–Liberal coalition government and the Banking Act of 2009 granted the Bank of England (BOE) a new statutory objective for financial stability by establishing a Financial Stability Committee (FSC). In addition, greater supervisory authority was given to BOE to intervene in troubled and recklessly-behaving banks. The new UK government believes that the existing tripartite regulatory system[42]—detailed in **Figure 5-22** and comprising the BOE, FSA, and Treasury—failed to consider macro-prudential

[42] This system was set up by the previous Labour government and divided financial oversight between the BOE, Treasury, and FSA.

regulations appropriately and therefore was unable to identify and mitigate the global imbalances and excessive borrowing that resulted in global financial turmoil. The UK government believes that the BOE is rightly placed for such a role given its macroeconomic expertise and market knowledge. The government has also given the BOE responsibility for financial stability oversight through the creation of the FSC with new tools to head off threats such as asset price bubbles. Meanwhile, the FSA will be overhauled and reconstituted as three separate authorities: (i) the Prudential Regulation Authority (PRA) for micro-supervision, (ii) the Consumer Protection and Market Authority (CPMA) for consumer protection, and (iii) the Economic Crime Agency (ECA) for prosecution of criminal offenses.

- **Financial Policy Committee (FPC)**

The BOE has two statutory objectives: (i) price stability through the interest-setting function of the Monetary Policy Committee (MPC), and (ii) financial stability through the activities of the FPC. The FPC will have 11 members, with the central bank governor as chairman. Other members will include (i) the BOE's existing deputy governors for monetary policy and financial stability, and its executive directors for markets and financial stability; the (ii) chief executive of the planned CPMA, and (iii) four external members and a non-voting representative from the Treasury. The Governor and Deputy Governors for financial stability and monetary policy will sit on both committees. The FPC will broadly monitor the UK's financial stability and take action necessary in response to systemic risks and vulnerabilities, and report on actions by publishing a bi-annual financial stability report.

- **Prudential Regulation Authority (PRA)**

The PRA will conduct day-to-day supervision of financial firms—banks, building societies and credit unions, investment banks, and insurers—and implement the macro-prudential policies adopted by the FPC. The PRA will be given new powers to supervise and enforce its policies and rules. The PRA will also assess the safety and soundness of financial firms, make the governing rules for the regulated activities of financial firms, approve those individuals required to perform controlled functions within firms, and raise levies to fund the PRA's activities. The PRA will be established as a subsidiary of the BOE, with its own board chaired by the Governor of the BOE. There will be a high degree of integration between the PRA's most senior management and that of BOE and the CPMA.

- **Consumer Protection and Market Authority (CPMA)**

The CPMA will take on the FSA's responsibility for consumer protection. The CPMA will have the regulatory function of setting rules that govern the conduct of financial firms in both the retail and wholesale areas. It will also have the power to grant permission for all regulated activities classified as non-prudential. It is envisioned that the CPMA will coordinate and cooperate with the FPC and the PRA in implementing its powers and functions. The CPMA will be governed by a board with majority of nonexecutives appointed by the Treasury and the Government's Department for Business Innovation and Skills. There will be an executive committee of the board, in which the CPMA's non-executive directors will be expected to participate in circumstances where they are not conflicted, that will have responsibility for supervisor and regulatory decisions.

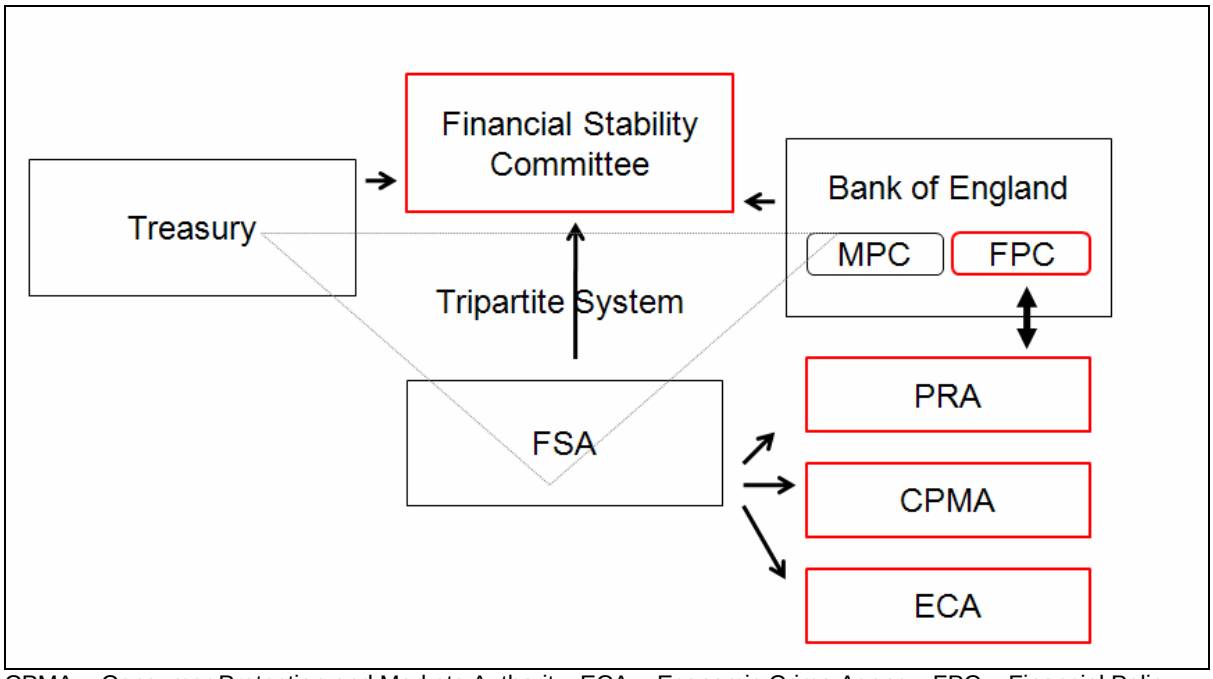
- **Economic Crime Agency (ECA)**

In his Mansion House speech,[43] the Chancellor of the Exchequer announced the establishment of a single new ECA that would assume responsibility for prosecuting criminal

[43] Speech at the Lord Mayor's Dinner for Bankers and Merchants of the City of London by the Chancellor of the Exchequer, the Rt. Hon. George Osborne MP, at Mansion House. http://www.hm-treasury.gov.uk/press_12_10.htm

offences, including those involving insider trading and market abuse, which is currently the responsibility of the FSA and other agencies. However, possible concerns arise related to the overlap of the various proposed enforcement functions. Financial firms could potentially face competing enforcement actions from the PRA for breaches of prudential principles, from the CPMA for breaches of specific rules on market conduct, and from the ECA for breaches of criminal law.

Figure 5-22: Financial Regulatory Framework in the United Kingdom



CPMA = Consumer Protection and Markets Authority, ECA = Economic Crime Agency, FPC = Financial Policy Committee, MPC = Monetary Policy Committee, and PRA = Prudential Regulation Authority.
Source: Summarized from various sources

5.1.3. United States (US)

As a logical response to the financial crisis, the passage of the Dodd–Frank Wall Street Reform and Consumer Protection Act represents the most ambitious and extensive regulatory reform of US laws governing the financial industry and markets since the Great Depression. The bill touches every domestic financial entity and affects most foreign financial entities. While much attention in the bill has been paid to systemically important financial institutions, smaller institutions are affected by many of the regulatory changes as well. As many of the bill's provisions give only a basic structure of reform and leave the regulators to fill in the details over the next 6–18 months, the process of implementing the bill's provisions promises to be a dynamic one. Consequently, the final shape and practical impact of the bill are still years from being understood. The major characteristics of the bill are summarized in **Table 5-36**.

Table 5-36: The Dodd–Frank Wall Street Reform and Consumer Protection Act

Provisions	Brief Summary
Banks	• Preserves the Federal Reserve (Fed) and Federal Deposit Insurance Corporation's (FDIC) bank supervision roles; calls for the Office of Thrift Supervision to be absorbed by the Office of the Comptroller of the Currency • Federal Reserve Board keeps oversight of largest bank holding companies • State banks and holding companies would either be regulated by the Fed or FDIC • Banks generally barred from using their own capital to engage in speculative trades
Consumers	• The Consumer Financial Protection Bureau (CFPB) to be established as an independent entity housed within the Fed; the CFPB will be led by a director appointed by the President and confirmed by the Senate • The CFPB is granted authority to write consumer protection rules for banks and nonbank financial firms offering consumers financial services or products, and to ensure that consumers are protected from "unfair, deceptive, or abusive" acts or practices
Credit Rating Agencies	• Creates an Office of Credit Ratings at the Securities and Exchange Commission (SEC) to administer credit rating agencies' rules and practices, and the authority to fine agencies
Derivatives	• Requires that many derivatives and over-the-counter financial products be traded on regulated platforms, and that trades are cleared through a central clearinghouse
Financial Stability	• Creates a Financial Stability Oversight Council (FSOC) with authority over bank holding companies with assets of more than US$50 billion and nonbank financial companies that the FSOC deems a systemic risk to financial stability
Hedge Funds	• Requires investment advisers of hedge funds with assets of more than US$100 million to register with the SEC
"Volcker Rule"	• Adopts a modified version of the Volcker Rule ban on proprietary trading by banks to generally prohibits banks from engaging in proprietary trading or holding or obtaining an interest in a hedge fund or a private equity fund • Banks are permitted to invest up to 3.0% of their Tier 1 capital in hedge funds and private equity funds, but a bank's interest may not exceed 3.0% of the assets of any single hedge or private equity fund; banks are permitted to invest in entities backed by the federal government such as federal, state, and local debt, as well as obligations of Ginnie Mae, Fannie Mae, Freddie Mac, and other government entities; banks are also permitted to engage in hedging activities

Source: summarized from various sources.

Throughout the Dodd–Frank's legislative process, various proposals were considered to streamline the US financial regulatory regime. Ultimately, the bill abolished the Office of Thrift Supervision (OTS), the current federal supervisor for thrifts and thrift holding companies, and reallocated OTS' authorities to the Office of the Comptroller of the Currency (OCC) for thrifts and to the Federal Reserve Board (FRB) for savings and loan holding companies. The bill also strengthens the enforcement of oversight powers of the Securities and Exchange Commission (SEC) in many aspects. It provides the SEC's Division of Enforcement with a host of new legal instruments. Among the most significant are new incentives and protections for whistleblowers, new authority to charge aiding and abetting violations, and penalties in administrative proceedings.

- **Financial Stability Oversight Council (FSOC)**

The FSOC will be created with authority over bank holding companies with assets of more than US$50 billion and nonbank financial companies that the FSOC deems a systemic risk to financial stability. Once designated systemically important, nonbank financial companies have 180 days to register with the Federal Reserve (Fed). FSOC will comprise nine voting members led by the Treasury Secretary. The other voting members will include the heads of the SEC, OCC, Federal Reserve Board of Governors, Consumer Financial Protection Bureau (CFPB), Federal Deposit Insurance Corporation (FDIC), Federal Housing Finance Administration (FHFA), and National Credit Union Administration (NCUA); as well as an independent insurance expert appointed by the President for a 6-year term. There are also five non-voting members, including the directors of the Office of Financial Research and the Federal Insurance Office, a state insurance commissioner, a state banking supervisor, and a state securities commissioner.

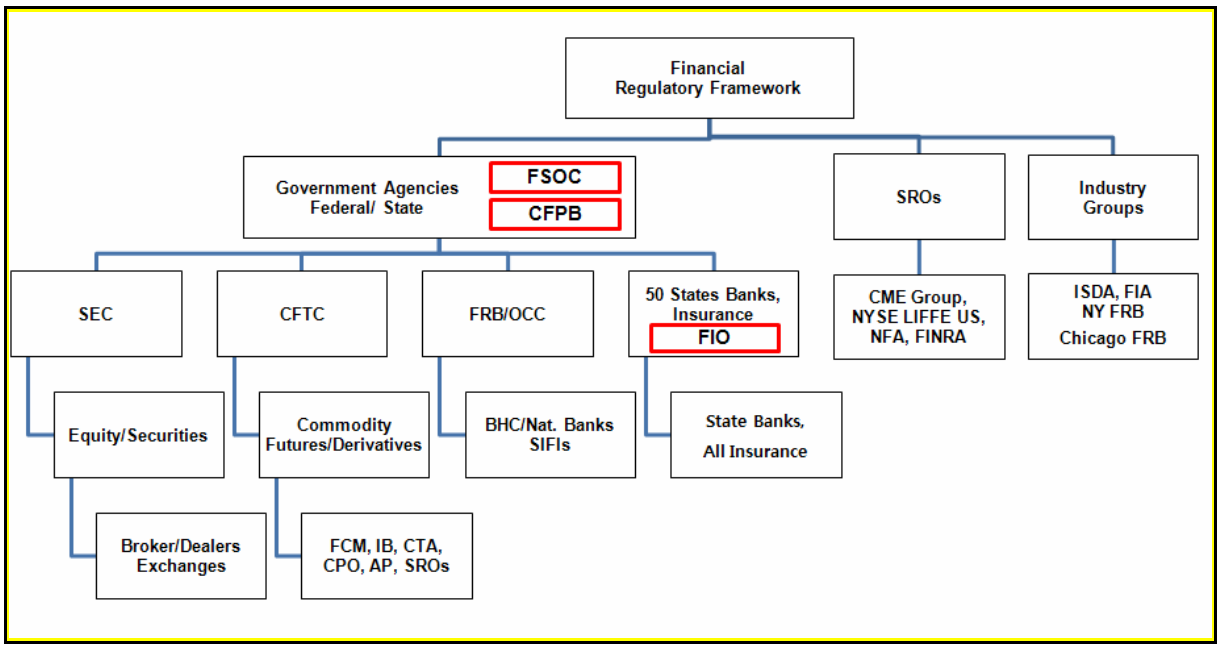
- **Consumer Financial Protection Bureau (CFPB)**

The CFPB will be housed within the Fed and established as an independent authority to write consumer protection rules for banks and nonbank financial firms offering consumers either financial services or products, and to ensure that consumers are protected from "unfair, deceptive, or abusive" acts or practices. The CFPB will also have the authority to examine and enforce regulations for banks and credit unions with assets of more than US$10 billion, all mortgage-related business, and large nonbank financial businesses.

- **Federal Insurance Office (FIO)**

The bill establishes an FIO to be housed within the Treasury Department. The FIO will be responsible for monitoring all aspects of insurance companies and identifying issues or gaps in regulation that could lead to systemic risk. Based upon its findings, the FIO will make recommendations to the FSOC regarding insurance companies that pose systemic risk and should be subject to greater regulatory oversight. The FIO will coordinate federal endeavors to regulate the insurance industry. Finally, the FIO will develop federal policy on prudential aspects of international insurance matters.

Figure 5-23: Financial Regulatory Framework in the United States



BHC = bank holding company, CFPB = Consumer Financial Protection Bureau, CFTC = Commodity Futures Trading Commission, CME = Chicago Mercantile Exchange, CTA = Commodity Trading Advisor, FCM = futures commission merchant, FIA = Futures Industry Association, FINRA = Financial Industry Regulatory Authority, FIO = Federal Insurance Office, FSOC = Financial Stability Oversight Council, ISDA = International Swaps and Derivatives Association, NFA = National Futures Association, OCC = Office of Comptroller of the Currency, SEC = Securities and Exchange Commission, SIFIs = systemically important financial institutions.
Source: CFTC and various sources.

5.2 The role of self-regulatory organizations (SROs) and securities dealers associations

5.2.1. Lessons from European experiences (ICMA)

SROs, in general, are defined as private non-governmental entities that are delegated authoritative power by government regulators in the context of International Organization of Securities Commissions (IOSCO) Principles. SROs are dedicated to the public interest objective of enhancing market integrity and efficiency, and investor protection. They can establish rules and codes to ensure regulatory objectives. While SROs do not have authoritative power to impose sanctions for breach of rules and codes, peer pressure and mutual trust among market participants warrants their enforceability.

The International Capital Market Association (ICMA[44]) acts as an SRO in the Eurobond market and facilitates interactions between issuers, lead managers, dealers, and investors in support of an efficient and well-functioning security market. Since the recent financial turmoil erupted, ICMA has also committed to rebuilding orderly capital markets and working closely with governments, central banks, regulators, and the constituencies they serve to achieve a fair balance between the interests of market participants and regulatory authorities.

5.2.1.1. Effectiveness of the European model: importance of SROs in rules-setting

The roles and objectives of ICMA are as follows: (i) set standards of good practice for orderly markets in consultation with members so that membership in ICMA is seen as a seal of approval by peers, regulators, and supervisors; (ii) consult members and represents their views with regulators and central bankers on cross-border regulatory issues in Europe; (iii) represent both sell-side and buy-side members while facilitating dialogue between them; (iv) work in cooperation with other trade association where it makes sense for members to do so; and (v) share experiences of setting standards of good market practice in Europe with other trade associations and SROs in the rest of the world.

SROs are deemed effective because they can flexibly adjust their rules and codes to meet changes in market practices, and they can closely communicate with member institutions to make effective rules.

5.2.1.2. To what extent is the European model is still valid?

In Europe, the role of SROs is not a focus of the current discussion of regulatory changes. As Euromarkets are offshore, they are not subject to any specific national jurisdiction. ICMA's position to set rules for Euromarkets has not been questioned. However, definition of the professional market participants might be reviewed and tightened restrictions

[44] ICMA (2008),“The Role of Self-Regulation”, ICMA Regulatory Policy Newsletter.

on sales of financial products may affect the ICMA's rules and codes of conduct. Within the European Commission, there is not much active discussion on SROs. The role of SROs and their effectiveness may be different from one market to another, particularly in the US where the relevant SRO did not function as expected since it failed to identify serious fraud. The rules in place in the US were not effective enough to control transactions because the SRO is closely related to legal tradition and its relationship with regulators. Therefore, Asia should define a self-regulatory regime that is most suitable to Asian countries.

5.3 How does the ASEAN+3 region construct and revise its regulatory regime?

5.3.1. Does the current security regulatory regime need to be changed?

When compared to the US and Europe, Asian bond markets showed a relatively better performance in the current financial crisis. The crisis revealed that the existing global standard is not a panacea. However, the crisis has not shown that Asia's current regulatory regime is perfect either. There is no reason for complacency. In response to the financial crisis, it is inevitable that financial regulation and supervision will be strengthened. Ongoing discussions and proposals in the G20 and FSB will have a substantial impact on the future direction of regulatory changes and financial market development in Asia. However, there is still room for market liberalization and deregulation in most Asian countries to further develop a regional bond market as well as domestic bond markets. Therefore, Asian economies need to design their own financial architecture and regulatory regimes in line with global best practices and current discussions in the G20 and FSB, rather than tighten financial regulations on an individual or ad hoc basis.

The recent global financial crisis has re-emphasized the need for strengthening regional financial cooperation among Asian countries. Indeed, regional financial cooperation has accelerated in the wake of the crisis. Specifically, Asian governments need to make a more concerted effort to develop an international common bond market for Asian currencies, which is currently almost non-existent, in order to better utilize the high level of Asian savings. Given the diversity of socio-economic conditions and financial developments, and increasingly inter-connected financial markets in the region, Asia needs to consider a consistent regulatory approach that is applicable to a regional common international bond market to efficiently facilitate cross-border transactions and financial integration.

5.3.2. How can cooperation among securities dealers associations in the region be enhanced with a view to harmonize bond standards at the market-level in the long run?

Table 5-37 indicates that there are notable discrepancies among countries in the region with respect to their complicated and overlapping structures of securities regulation. For example, the PRC's bond markets are segmented based on the issuer and various securities laws. In addition, each segmented market is subject to different regulators and the regulatory regime is overlapping and fragmented without clear definitions of regulatory responsibilities.

Table 5-37: Securities Regulations in Selected Countries

	Main Securities Supervisor	Other Relevant Securities Authorities	SRO[45] (Exchange, Industry Association)	Structure of Financial Supervision
China	CSRC	NDRC, CBRC, PBOC	NAFMII	Multiple
Indonesia	BAPEPAM	Bank Indonesia	BEI,	Multiple
Japan	FSA		TSE, JSDA	Single
Korea	FSC	FSS	KRX, KOFIA	Single
Malaysia	SC	BNM	BMB, MIBA, ACI-Malaysia	Semi
Singapore	MAS		SGX	Single
Thailand	SEC	BOT	TBMA	Multiple

ACI-Malaysia = Securities Dealer's Association), BAPEPAM = Badan Pangawas Pasar Modal (Capital Market and Financial Institution Supervisory Agency), BEI = Bursa Efek Indonesia (Indonesia Stock Exchange), BMB = Bursa Malaysia Berhad, BNM = Bank Negara Malaysia, CBRC = China Banking Regulatory Commission, FSA = Financial Services Agency, FSC = Financial Services Commission, FSS = Financial Supervisory Service, JSDA = Japan Securities Dealer's Association, KOFIA = Korea Financial Investment Association, KRX = Korea Exchange, MIBA = Malaysian Investment Banking Association (Primary Market Association for Bonds), NAFMII = National Association of Financial Market Institutional Investors, PBOC = People's Bank of China, SC = Securities Commission, TSE = Tokyo Stock Exchange, NCSRC = China Securities Regulatory Commission, NDRC = National Development and Reform Commission.

Source: Eschweiler, Bernhard (2006), "Bond market regulation and supervision in Asia", *Asian bond markets: issues and prospects*, BIS, vol. 30, pp 335-352.and various sources

Developing domestic bond markets has been a major policy concern since the 1997/98 Asian financial crisis. Given current circumstances, developing a common cross-border market to further promote regional integration should be made a top priority. A regional framework for securities regulation to effectively create cross-border markets is also needed. However, cross-border transactions in Asia are very limited due to strict capital flow controls, currency restrictions, and foreign exchange (FX) controls. Some countries follow a quota system while others have exchange controls in which FX transactions must be substantiated by actual transactions. However, as regulations move towards liberalization and regional investors expand, cross-border transactions will increase, which increases the need for an effective and consistent regulation framework for cross-border transactions. One of the lessons from the sub-prime mortgage crisis is that while there were too many regulators and supervisors in the UK and US, there were not enough cross-border regulatory agencies.

5.3.3. The roles and merits of Asian SROs or securities dealers associations.

In general, the majority of SRO members include brokers–dealers, who are also well represented in the governance of SROs. The self-policing arrangement of SROs enforces compliance with common rules of conduct from each member. Industry input into the rules-making process and representation through market consultations contribute to effective compliance procedures. Compared to statutory regulations, SROs have flexibility and can adapt quickly to changing regulatory requirements, an evolving business environment, or new financial innovations. In this respect, self regulation, in general, imposes fewer costs

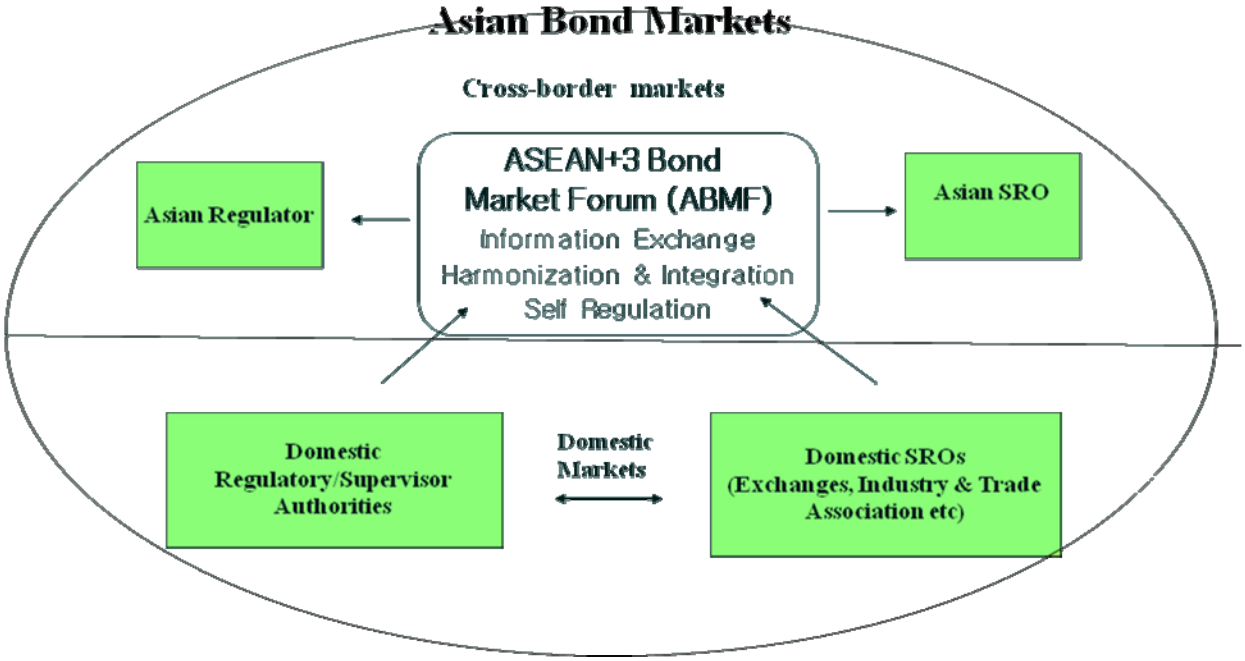
[45] See more details of major SROs in ASEAN+3 in Annex 3.

than government-led statutory regulation.

5.3.4. Asian model of SROs: Relationship with regulators and domestic SROs

In Asia, supervisory authorities are often not independent from the government or related authorities, such as the central bank, in the performance of their roles and functions. In many cases, the government interferes with the supervisory authorities in the enforcement of laws and regulations. In addition, most SROs in the region are led by public regulators and the government, and consequently they play a limited role in securities regulation. In most countries the use of SROs is limited to public exchanges instead of as a genuine securities industry association.

Figure 5-24: Regional Framework for Asian Bond Markets



There are two approaches to rules-setting and SROs in cross-border transactions in **Figure 5-24**. First, a forum for regulators should be established to identify effective regulations that are consistent across jurisdictions. Second, a regional forum should be convened for market participants to set regional self-governing rules for offshore transactions that are not subject to any one country's regulation. This forum could eventually evolve into an Asian Supervisory Authorities, or an Asian SRO, if such bodies were deemed suitable for the region. In Asia, where there is no central political body like the European Commission, the ABMF could bring together regional regulators and supervisors, as well as market participants, at the regional level to cooperate and exchange information with the aim of harmonizing differences in regulatory frameworks.

6. Establishing the ASEAN+3 Bond Market Forum (ABMF)

6.1. Rationale of the ABMF

The ASEAN+3 countries share a consensus on the importance of fostering liquid and efficient bond markets in Asia by facilitating the harmonization of bond standards and regulations. Unlike Europe, where adoption of a single currency provided key momentum for integration and harmonization, East Asian countries will require more cooperative and systematic joint efforts to establish a harmonized and integrated regional bond market.

As stated in the analysis provided in section 2, the efforts to establish a regional bond market should be based on an understanding of the different characteristics of each domestic market. Accordingly, a review is needed of the policies, practices, and regulatory standards of bond markets in individual ASEAN+3 countries; followed by an exploration of the possibility of harmonizing these standards and practices to facilitate the development of an integrated regional bond market in East Asia. Indeed, these efforts have been realized through various working groups and task forces organized under the Asia Bond Market Initiative (ABMI). However, these efforts lack a comprehensive plan to effectively foster harmonization of bond markets in Asia. In 2005, in recognition of the gridlock, ABMI member countries agreed to complement ongoing efforts with a more progressive and systematic approach, which would be empowered by a comprehensive discussion among member countries, and to implement this approach by conducting research for the Asian Bond Standard.[46] The discussion among member countries will require experts to convene regular meetings aimed at identifying differences across domestic markets to effectively foster harmonized and integrated Asian bond markets over the long-run.

It is important to employ differentiated approaches in fostering the harmonization of government and corporate bond markets. At this stage, a drastic approach to harmonize bond standards and regulations may not be feasible, especially with respect to government bond markets. Hence, a forum to study measures and strategies for the harmonization of bond standards and regulations is needed for government bond markets. The harmonization of corporate bond markets might entail utilizing a less-regulated offshore market approach and seeking a transition to an integrated regulatory environment as the new market develops. However, it may be difficult to expect harmonization via offshore markets since governments tend to opt for autonomy and flexibility in their sovereign debt management. As a result, it may be ideal for each country to first develop its own domestic government bond market and then seek gradual harmonization as individual markets develop.

The development of local currency (LCY) bond markets has been driven by the rapid growth of government bond markets. **Figure 6-25** shows changes in the relative size of LCY government and corporate bond markets relative to gross domestic product (GDP) during the last decade. As can be seen, government bond markets have grown relatively faster than corporate bond markets in many Asian countries. Hence, the environment needed to begin the process of harmonizing government bond markets is rapidly improving. The importance of harmonizing bond standards in the secondary government bond market was recently highlighted as authorities coped with the global financial crisis, during which Asian governments sought fiscal expansion via the massive issuance of government bonds. Hence, taking measures to effectively enhance liquidity and reduce financing costs has taken on heightened importance.

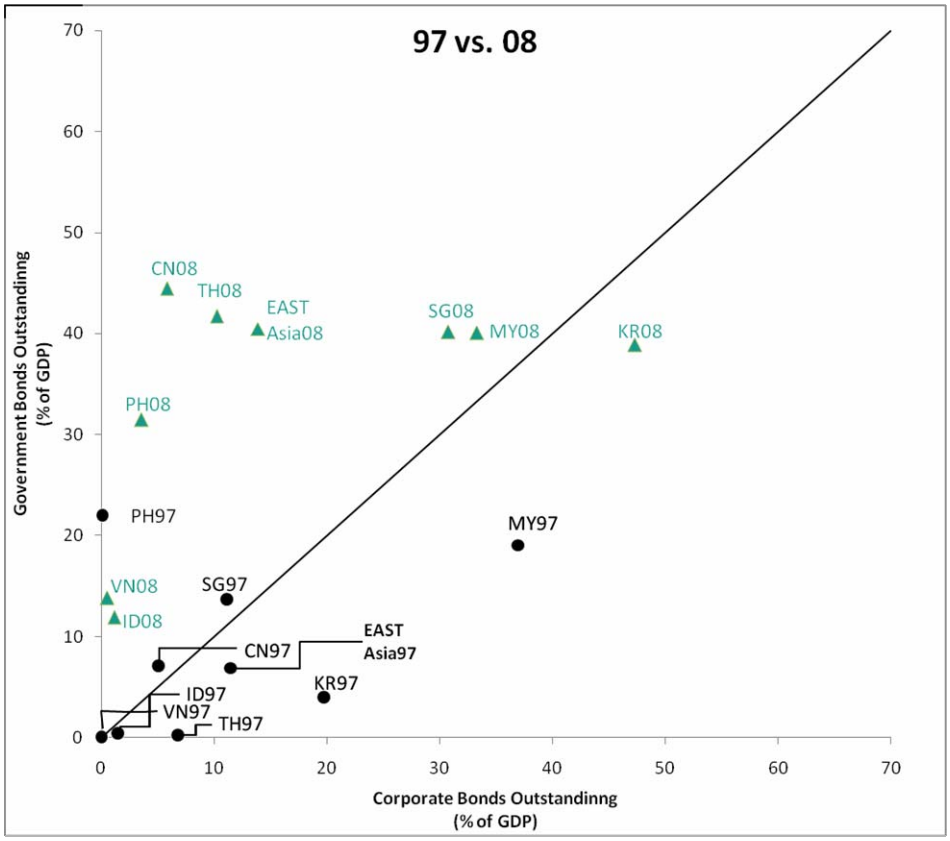
[46] *Asian Bond Standard* (2005). Submitted to the ABMI by the Ministry of Finance and Economy of the Republic of Korea.

With this background and based upon the need for differentiated approaches to bond market harmonization, this section proposes establishment of the ASEAN+3 Bond Market Forum (ABMF) to foster comprehensive and systematic discussions among bond market specialists and policymakers from member countries to develop strategies for the harmonization and integration of Asian government bond markets. The region's market experts and policymakers will first need to identify the differences in bond market standards and policies across the region's economies and share their experiences to develop effective harmonization strategies.

The ABMF can begin by conducting detailed analysis of each market and providing comprehensive comparative studies. Under the proposed ABMF, market experts would contribute to discussions on specific issues related to their own respective markets and policymakers would accelerate the integration process by recognizing the benefits of harmonization. The discussion agenda would center on facilitating the development of more liquid and efficient secondary government bond markets. ABMF discussions could also extend to corporate bond market issues by analyzing existing models of common corporate bond schemes such as Euro medium-term note (MTN) programs and the Asian Currency Note Program (ACNP).

This section reviews existing bond market international forums and proposes an organizational structure and agenda for the ABMF.

Figure 6-25: Growth of Asian Local Currency Bond Markets, 1997–2008



Source: AsianBondsOnline website.

6.2. Existing International and Regional Bond Forums: Case Studies

6.2.1. Economic Financial Committee (EFC) Sub-Committee on European Union Government Bonds and Bills Markets (Brouhns Group)

Until the late 1990s, European Union (EU) member countries sought to ensure flexibility and autonomy in their respective fiscal management and government bond policies. Therefore, no common guidelines on regulating EU-wide government bond markets had ever been adopted. The Economic and Financial Committee (EFC) under the European Commission was among the first entities to seek harmonized bond standards in the EU. In line with this endeavor, the EFC created the Sub-Committee on EU Government Bonds and Bills Markets in 1997 to study the modalities of debt re-denomination in stage three of the European Economic and Monetary Union (EMU) and other issues related to government bonds and bills markets in the context of the adoption of the euro. The sub-committee was named the Brouhns Group after the name of its first committee chair, Grégoire Brouhns.

At the time of its establishment, the sub-committee comprised representatives from the public debt management offices of 25 EU member states as well as officials from the European Central Bank and European Commission. Although the sub-committee was only a non-binding multilateral partnership, it achieved the following in terms of harmonizing government bond standards:

(i) standardized issuing procedures,

(ii) debt re-denomination and harmonization of market practices,

(iii) collective action clause in issuing international debt securities, and

(iv) standardized reporting formats for primary dealers.

After achieving its initial tasks, the sub-committee continued to work under a new mandate. Currently, it comprises representatives from all 27 EU member states who are responsible for managing public debt, typically from their respective country's debt office, finance ministry, or central bank, depending on the authority of debt management policies. The European Commission and the European Central Bank are also represented in the sub-committee, which continues to promote the further integration and improved functioning of EU government bond markets, thereby positively impacting financial markets as a whole. In particular, the sub-committee is tasked with:

(i) monitoring the EU bond market to promote the efficient functioning of the EU's primary and secondary government debt markets,

(ii) reviewing existing barriers to the further integration of the EU government securities markets,

(iii) supporting member states in identifying and implementing best practices through the exchange of information and experiences on both strategic and technical aspects of government debt management,

(iv) dealing with other important issues of public debt management on an ad hoc basis when necessary, and

(v) reporting regularly (at least once a year) to the EFC on major developments and key strategic issues.

6.2.2. OECD Working Party on Public Debt Management

The Organisation for Economic Co-operation and Development (OECD) organized a Working Party on Public Debt Management (WPDM) as a working group under the Committee on Financial Markets in 1979. WPDM was established to allow high-ranking debt managers of OECD countries to exchange ideas and share experiences from the management of national debt and government bond markets. WPDM discusses a wide range of policy issues concerning national debt and is in the process of establishing global standards based on accumulated knowledge and experience.

WPDM shares its knowledge and experience regarding the efficient operation of primary and secondary government bond markets with the governments of developing countries. Specifically, its discussion agenda includes the following:

(i) current state of the government bond market in each country,

(ii) electronic bond trading system,

(iii) effective organization of debt management office,

(iv) role of debt managers in sovereign asset–liability management,

(v) primary and secondary government bond markets,

(vi) risk management of government debt,

(vii) government cash management,

(viii) derivatives markets, and

(ix) assessment and management of contingent liabilities.

The activities of WPDM are directed and supported by a Bureau, which is responsible for planning and coordination for the WPDM. The Bureau is not a formal organization, but a steering group in charge of preparing the WPDM's main activity plan and an annual meeting, as well as deciding the meeting agenda. One chairman and ten vice-chairmen, who are high-ranking debt managers of EU member states, are elected by the WPDM as members of the Bureau each year.[47]

As for the working-level organization, in order to facilitate in-depth discussions, the WPDM organizes various ad hoc debt management expert groups for key debt management issues. Each group comprises 5–7 experts from a pertinent field. In principle, the groups hold meetings once a year and continue with further discussions through conference calls as needed. An expert group will be dismissed when a final report has been completed, including an in-depth discussion of the relevant topic, and policy alternatives have been submitted to the annual general meeting of the WPDM.

[47] For instance, members of the Bureau who were elected in 2007 include L. Jensen from the Denmark National Bank as Chair and representatives from the Hungarian Government Debt Agency, Italian Treasury, Agence France Trésor (AFT), Australian Office of Financial Management, Japanese Ministry of Finance, United States (US) Treasury, German Finance Agency, National Bank of Belgium, Canadian Department of Finance, United Kingdom (UK) Debt Management Office, and OECD as vice-chairs.

6.2.3. Global Forums

The WPDM organizes two global forums in cooperation with the OECD–Italian Treasury Network for Public Debt Management, the OECD–World Bank–International Monetary Fund (IMF) Global Bond Market Forum, and the OECD Global Public Debt Forum. Each forum is held once a year and covers 2–3 topics. A partial list of topics addressed at past annual forums includes:

(i) price discovery in government bond markets,

(ii) government debt management and bond markets in Asia 10 years after the 1997/98 Asian financial crisis,

(iii) the role of retail instruments in issuing strategies,

(iv) risk management of government debt,

(v) challenges and prospects of European Public Debt Markets related to EU enlargement,

(vi) the role of repurchase (repo) markets for the development of secondary government bond markets of new EU members and other emerging markets,

(vii) the efficiency of government bond issuance methods, and

(viii) innovations in the fixed-income sector and their use for the design of government debt instruments in emerging markets.

Participants include debt managers, supervisory bodies, central banks, financial policy authorities, and private market participants from OECD countries. The Global Bond Market Forum has been held in association with the World Bank and IMF since 2006. The Asian Development Bank (ADB) is also participating in the forum to discuss issues regarding Asian debt markets.

In addition to the two forums above, WPDM intermittently holds regional and local forums. The annual Baltic–Nordic Forum on Public Debt Management was held prior to 2004 when the Baltic countries became member states of the EU. The OECD–China Forum on Public Debt Management and Government Securities Markets has been held regularly since its first meeting in June 2004.

6.2.4. OECD–Italian Network for Public Debt Management in Emerging Markets (PDM Network)

The PDM Network collects experiences and techniques in sovereign debt management and disseminates them to developing countries. At the same time, the PDM Network facilitates communication between OECD's debt managers and national debt managers of developing countries. Since the signing of a memorandum of understanding between the OECD and Italian Ministry of Finance in 2004, the Italian Ministry of Finance has been covering all expenses incurred from operating the network.

Throughout the PDM Network, debt managers from OECD and developing countries share WPDM's best practices and a wide range of pertinent resource materials on-line, thereby enabling the efficient sharing of accumulated knowledge. The network is also widening its range of activities by disseminating WPDM's acquired information and

contributing to the OECD Global Public Debt Forum. The PDM Network's governance group, comprising less than seven representatives, is an entity that plans activities and manages the network's budget. The governance group currently comprises representatives from the OECD, Italian Ministry of Finance, Central Bank of Denmark, Central Bank of Spain, and Debt Management Office of Belgium. The group holds two regular meetings each year.

6.2.5. ASEM Public Debt Management Forum

The Asia–Europe Meeting (ASEM) Public Debt Management Forum is a non-OECD debt management forum. The fourth meeting of the ASEM Public Debt Management Forum was held in December 2005 under the joint auspices of the UK and the People's Republic of China (PRC) with participants from the PRC, Denmark, Finland, Germany, Indonesia, Italy, Japan, Republic of Korea (Korea), Malaysia, Netherland, Poland, Singapore, Sweden, Thailand, UK, and the IMF. The forum covered various topics, including the relationship between national debt management and monetary and foreign exchange policies, governance structures for national debt management, and the relationship between the balance sheet of the public sector and national debt management strategies.

6.2.6. Clearing and Settlement Advisory and Monitoring Expert Group

In order to create efficient and safe EU securities clearing and settlement systems, and to tackle Giovannini barriers in parallel, the European Commission Communication on Clearing and Settlement (April 2004) called for a new advisory and monitoring group known as the Clearing and Settlement Advisory and Monitoring Expert Group (CESAME).[48] The group was in operation from July 2004 to June 2008, during which time it carried out dual roles including (i) advising and assisting the Commission in the integration of EU securities clearing and settlement systems in general, and (ii) focusing on the removal of those Giovannini barriers for which the private sector had sole or joint responsibility.

Following the dismissal of the CESAME group, a new industry group, known as CESAME II, was set up to ensure the continuation and proper completion of CESAME's mission, and to dismantle all remaining and newly-identified obstacles in the cross-border, post-trading area. This group, comprising high-level representatives of various private- and public-sector bodies involved in the post-trading process, is chaired by the European Commission.

The tasks of CESAME II include:

(i) supporting projects and ensuring transparency for efficient, EU-wide post-trading via removal of Giovannini barriers;

(ii) continuing work on dismantling Giovannini barriers as well as other identified obstacles for which the private sector has sole or joint responsibility;

(iii) monitoring implementation of the recommendations, standards, and any other solutions developed by the industry for the dismantling of industry-related Giovannini barriers; and

[48] As for the harmonization of settlement and clearing, significant progress has been made in overcoming national barriers since the publication of the review and recommendations by the Giovannini group (2001, 2003). The Giovannini Group comprised financial sector experts and met under the chairmanship of Alberto Giovannini to advise the Commission on financial sector issues. The Group identified the source of the problems with respect to 15 barriers based on market practices, regulatory requirements, tax procedures, and issues of legal certainty. The report set a theoretical framework for harmonization and identified legal and technological issues.

(iv) overall monitoring of developments in the post-trading area.

To ensure consistency of action, CESAME II is also required to:

(i) interface with the private- and public-sector bodies involved in the process of removing Giovannini barriers;

(ii) offer informal assistance to the European Commission through the provision, upon request, of detailed information on specific technical issues;

(iii) liaise with the expert groups assigned to tackle legal barriers and barriers related to tax procedures; and

(iv) liaise with international bodies to ensure the consistency of EU initiatives with those developed at the international level.

Out of 15 Giovannini barriers recognized by the Giovannini Group and the Commission in October 2008, CESAME was asked to tackle those six that were identified as industry-related barriers: Barrier 1 (the diversity of information technology [IT] platforms), Barrier 3 (corporate actions), Barrier 4 (absence of intra-day settlement finality), Barrier 6 (differences in standard settlement periods), Barrier 7 (different operating hours and/or settlement deadlines), and Barrier 8 (differences in securities issuances).

6.2.7. Securities Market Practice Group (SMPG)

Participants in securities markets have historically defined market practice rules for existing securities messaging standards. This resulted in an inefficient exchange of information in which standards and their associated market practice rules were being interpreted and implemented differently by various industry participants in a range of geographic markets.

To address this shortcoming, the Securities Market Practice Group (SMPG), a global securities industry group, was created in July 1998 with the objective of establishing globally-accepted harmonized market practices that, when integrated with standards, would bring the securities industry closer to achieving straight-through-processing (STP). SMPG membership is open to all securities industry players through participation in the National Market Practice Groups (NMPGs) and other affiliated organizations, such as infrastructure and liaison organizations, which are interested in creating globally-accepted market practices for the securities industry. NMPGs have been established in more than 35 countries and comprise investment management institutions (IMIs), broker/dealers, custodian banks, central securities depositories, and regulators, among others. SMPG has designated the Society for Worldwide Interbank Financial Telecommunication (SWIFT) as a facilitator and sponsor.

In line with SMPG's objective and existing globally-accepted market practices, NMPGs seek to discuss and agree upon locally harmonized market practices. NMPGs are led by two co-chairs: a national convener (primary contact) and a vice convener (secondary contact). Country-specific practices are documented and published (www.smpg.info), and regularly updated. NMPG representatives attend global SMPG meetings to comment on SMPG global market practice working documents. Local meetings are held at the convenience of each individual NMPG.

Since its inception, the SMPG has focused on enhancing securities industry practices through harmonization of non-regulated geographic differences, as well as consistent implementation by securities industry participants within and across all markets. To meet this objective, the SMPG global forum hosts two meetings per year and holds periodic conference calls led by its steering committee and NMPG representatives (i.e., national convener and vice-convener), with the participants restricted to NMPG official representatives, affiliated organizations, and guests approved by the steering committee. The meetings cover a range of issues including (i) standardized methods of informing custodians, (ii) transfer securities, (iii) the resolution of cross-matching at central securities depositories, (iv) the creation of NMPGs in non-participating countries, and (v) the development of multi-year project plans.

The securities market practices that SMPG envisions to create can be understood as the sum of business data and rules needed for an automated and dependable communication of securities transactions in all market segments (e.g., corporate action) at both the local and global market levels. In practice, the above definition can be differentiated into two component parts:

(i) market requirements that all SMPG-compliant financial companies should be able to process global and local market practices, and

(ii) additional functionalities that provide business data and rules needed for the automated and dependable communication of specific processes not applicable to all financial institutions.

The detailed SMPG process to produce these securities market practices begins with the NMPGs' analysis and documentation of local practices. The SMPG then collates common elements, specifies additional country requirements, and identifies further opportunities for harmonization of non-regulated differences. After final review and refinement by the SMPG, the market practice rules are published on the SMPG website.

To enable effective implementation of these market practices in day-to-day business operations, the business rules and data have been translated into the available International Organization for Standardization (ISO) 15022 and ISO 20022 standards so that a unique description of type, structure, data fields, qualifiers, code words, and formats used in such messages can be ascertained.

With interpretation and implementation through ISO standards, the SMPG has produced over 30 market practice recommendations covering trade initiation/confirmation, settlement, reconciliation, and corporate actions using ISO 15022 messages. Additionally, the SMPG has since expanded to define market practices for the investment funds industry using ISO 20022 messages.

Some of the key market practices defined include:

- comprehensive place of settlement listing and corresponding market practice usage;
- common element listing of values for settlement;
- statement of holdings and transaction;
- block trades;
- status message and pending transaction recommendation;
- repo—one message vs. two messages;
- corporate action event interpretation grid;
- proxy scenarios successfully recommend use of new suites of proxy messages in

ISO 20033;

- consistent usage and placement of key data elements for corporate action events;
- corporate action notification, instruction, confirmation, and status market practices; and
- order, execution, allocation, and trade confirmation market practices.

6.2.8. Association of National Numbering Authority (ANNA)

Founded in 1992 in Brussels, the Association of National Numbering Agencies (ANNA) has been striving under the umbrella of ISO to promote and maintain the ISO 6166 standard, and to distribute the International Securities Identification Numbering System (ISIN)[49] in a uniform structure among its members and the global financial community for use in any application in the trading and administration of securities.

To realize its goal of global promotion of ISO 6166 and transnational harmonization of ISIN, since its inception ANNA has welcomed a significant number of national numbering agencies (NNA) as designated by ISO 6166. ANNA's membership at the end of 2008 stood at 78 full members and 23 partners representing 113 countries.

The presence of NNAs has been central to the technical development, application, and uniform dissemination of ISIN. In particular, the NNAs' willingness to adjust their securities identification number (i.e., ISIN allocation procedures in the interest of transnational harmonization) has led to the development of extensive and sustainable standards and guidelines to which ANNA members may adhere in their daily operating practices. Of particular note is the willingness of NNAs to share their nationally allocated ISINs on a centralized basis via ANNA and make available their own extensive data to their local markets for this purpose.

ANNA—in line with the NNAs' willingness to share their nationally allocated ISINs and in association with Standard & Poor's and Telekurs Financial—has developed a new entity known as the ANNA Service Bureau to facilitate NNAs' daily interactions and make the ISINs available on a permanent basis. The ANNA Service Bureau collects and consolidates ISIN data from the 78 ANNA members via central registers and integrated databases, and disseminates this information to the market via downloadable FTP (delivered weekly or daily) and a real-time, web-based query tool through which the securities industry may link and cross-reference the single ISO numbering standard ISIN with the myriad local numbering systems embedded in the infrastructure of market participants.

Aside from providing ISIN products, the ANNA Service Bureau provides the following benefits and features to the industry on behalf of ANNA:

(i) data quality support assuring timeliness, accuracy, and availability;

(ii) centralized administration;

(iii) robust database storage and disaster recovery; and,

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[49] ISIN is a unique number structure that identifies fungible securities—bonds, commercial paper, equities, and warrants. Consisting of a total of 12 characters, ISIN can generally be broken down into three parts—a two-letter country code, a nine-character alpha–numeric national security identifier, and a single check digit.

(iv) global, proactive technology and communication support enabling robust interaction with the financial industry.

As for the administration of ANNA, the Board of Directors is vested with the power to conduct all acts of administration. The Board of Directors comprises five directors who are elected by the general meeting, with the directors nominating the board's chairman, vice chairman, executive secretary, and treasurer to represent ANNA through a 3-year term of office. The directors hold a general meeting within 6 months following the end of each financial year to discuss:

(i) approval of new members and the suspension and termination of existing members;

(ii) approval of annual accounts and any annual budget and fees for administrative services for the forthcoming year;

(iii) decisions on the formation of any proposed partnership, joint-venture, union, or cooperation with any company or firm; and

(iv) decisions regarding the development and financing of new data processing products and/or services in relation to ANNA's objective, and major improvements to (or the curtailing of) existing products and services.

As ANNA's responsibilities have grown since its founding in 1992, a number of working groups (WGs) and task forces (TFs) have been formed through decisions of the general meeting. While WGs are permanent bodies that explore strategic matters, TFs operate on a fixed-time period and present their results to the general meeting. At present, three working groups are in operation to serve ANNA's objectives:

(i) WG1 (assisting markets),

(ii) WG2 (ISIN quality and guidelines), and

(iii) WG4 (emerging ANNA members).

6.3. Organization of the ASEAN+3 Bond Market Forum (ABMF)

The proposed ABMF should be different from existing debt management forums in the following aspects. First, while existing debt management forums deal with more comprehensive issues, including treasury cash management and sovereign debt risk management, the ABMF will, at least during the initial stage, limit its focus to the harmonization of bond markets. Second, while existing debt management forums and the proposed ABMF share a common interest in developing national bond markets, the ABMF will pursue the harmonization and integration of national bond markets from the perspective of fostering an integrated regional bond market in Asia. Third, while debt management forums are generally interested in issuing strategies for primary markets, the ABMF will initially focus on the harmonization of bond standards and regulations in the secondary bond market, recognizing the difficulty of harmonizing the issuing policies of government bonds. Finally, unlike debt management forums, the ABMF will study corporate bond market issues and the linkages between government and corporate bond markets.

In addition, the ABMF can learn lessons from the experience of European financial integration. In Europe, the public and private sectors communicate closely through various forums such as CESAME and SMPG as examined above. Likewise, the ABMF should be

able to institutionalize effective regional public and private sector dialogue, which is indispensable to the efforts to harmonizing standards in this region. The following description presents the terms and organizational structure of the proposed ABMF.

6.3.1. Purpose of the ABMF

The ABMF, under the ambit of ASEAN+3 countries and comprising of bond market experts from the region, will be established to discuss various bond market issues to further develop liquid and well-functioning bond markets, and effectively channel the region's abundant savings for the increased investment needs.

The ABMF aims to:

(i) assess the existing regulatory frameworks and identify recommendations on how to foster harmonization of regulations and market practices that facilitate cross-border bond transactions in the region;

(ii) enhance dialogue between the private sector and ASEAN+3 officials to develop bond markets in the region and promote harmonization, standardization, and integration; and

(iii) provide opportunities to exchange knowledge, expertise, and experiences among the private and public sector in the region;

6.3.2. Function of the ABMF

The ABMF shall provide ASEAN+3 officials with the viewpoints and recommendations of the regions' bond market experts on issues that will be adopted by Task Force 3 (TF3) of the Asian Bond Markets Initiative (ABMI). While the ABMF will prepare recommendations for the ABMI, these recommendations will not be binding for ASEAN+3 member countries.

The ABMF will:

(i) provide in-depth analysis of bond markets in the region and and make intra-regional comparisons in order to identify national differences and target the market characteristics required for harmonization and standardization;

(ii) explore issues to promote harmonization of bond standards to facilitate cross-border issuance and investment; and

(iii) prepare a strategy and road map for the harmonization of regulations and market practices; and integration of bond markets across the region.

6.3.3. Membership and Participants

The ABMF shall consist of (a) national members, (b) national experts, and (c) international experts. The membership of the ABMF will be given until the forum members bring out a conclusion to the issue discussed. The period of discussion to reach a conclusion is expected to be one to two years. The members and experts will be selected based on issues which are adopted by the TF3. The members and experts selected must have

extensive knowledge and expertise in the issues which will be discussed. The members and experts should be selected from among those actively involved in bond markets in the region including, but not limited to, the following:

The ABMF shall consist of national members, national experts, and international experts. The members and experts should be selected from among those actively involved in bond markets in the region including, but not limited to, the following:

(i) financial industry associations such as bankers' associations, security dealers' associations, and self-regulatory organizations (SROs);

(ii) institutional investors such as pensions, fund managers, and insurance companies;

(iii) commercial banks and brokers;

(iv) custodians and central securities depositories (CSDs);

(v) rating agencies;

(vi) financial services providers, including information technology (IT) vendors;

(vii) financial regulators, including securities commissions;

(viii) central banks;

(ix) law firms; and

(x) academics

The national members shall be nominated by each member country of TF3. In principle, the number of national members should be limited to one or two persons from each country for the purpose of effective communication. National members should represent the opinions of their respective home market as opposed to the opinions of the institution to which they belong. It is advisable for national members to form a preparatory working group within their respective markets.

With the consent of other national members, a national member may nominate national experts as participants. The national experts shall contribute to discussions by providing insight on specific issues related to their respective markets.

With the consent of other national members, a national member may nominate international experts as participants. The international experts shall contribute to discussions related to cross-border transactions in the region.

In the case of the Brouhns Group in the EU, although the group was a non-binding partnership, by having members who were high-level representatives from the debt management offices of member countries, the representatives were able to more easily put into practice the group’s discussion results and therefore accelerate the harmonization process. On the other hand, given current circumstances in Asia, where national interests and policy formulation regimes are heterogeneous, the involvement of public sector experts would create difficulties. In this setting, it would be more appropriate to discuss technical issues among the private sector first and then consult with public sector opinion.

6.3.4. Organization and Governance

6.3.4.1. Organization

The ABMF shall be organized under TF3 of the ABMI. The ABMF will consult with the co-chairs of TF3 from time to time in undertaking any regional activities and will report to TF3 on a regular basis regarding the progress of its activities. If any of its proposed activity would have significant impact on any member country(s), ABMF, through ADB as its Secretariat, shall seek endorsement from the co-chairs of TF3 before carrying out such activity.

6.3.4.2. Chair

The chairman of the ABMF will be elected by national members. If multiple forums are established, the chairmen of the forums shall be elected by the national members of each forum.

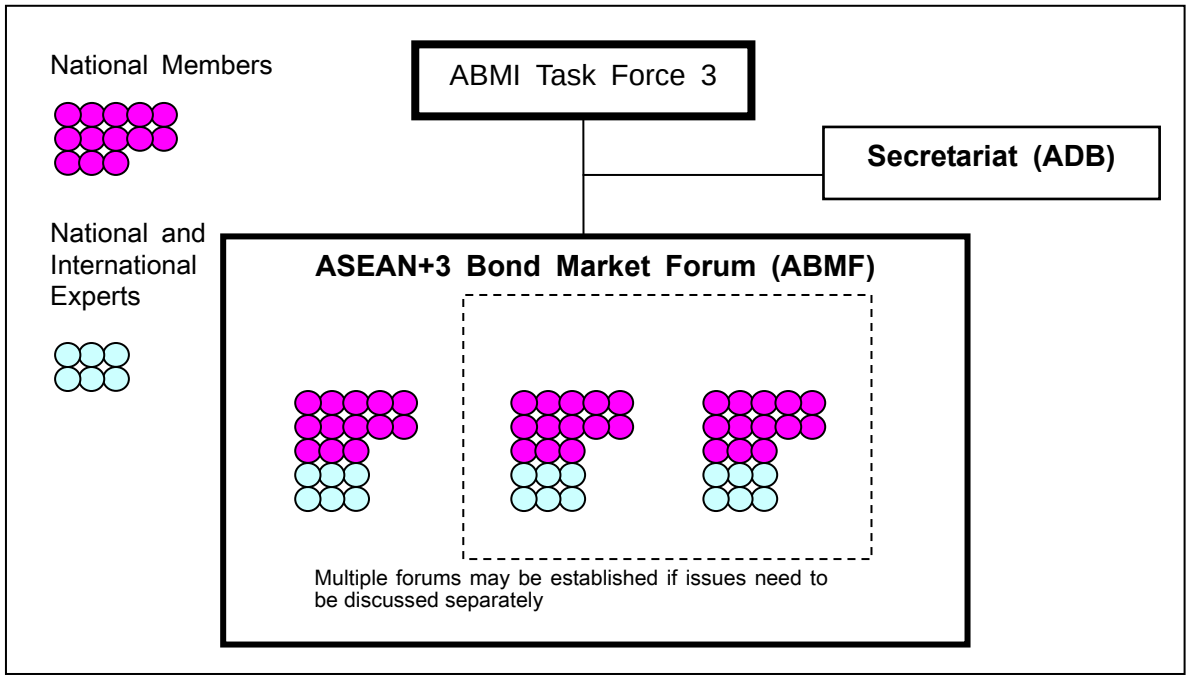
6.3.4.3. Secretariat

To facilitate communication among ABMF members and between the ABMF and TF3, ADB will serve as an ABMF member as well as its Secretariat. In ADB's capacity as Secretariat, it will provide the necessary support to facilitate ABMF discussions.

6.3.5. Funding

Respective participants will assume all expenses related to activities of the ABMF.

Figure 6-26: Organization of the ABMF



6.4. Proposal of Agenda and Roadmap

6.4.1. Issues and Priorities

The ABMF should take stock of the Group of Experts (GoE) report[50]. The GoE report recommends improving information flows to foreign investors to narrow the information gap by facilitating access to information on regulations. The GoE also proposes starting discussions on the settlement barriers among private sector experts first to avoid political controversy. Later, if TF3 members agree, the regulatory barriers could be chosen as agenda items.

Figure 6-27: List of Major Market Barriers Identified by the GoE Report

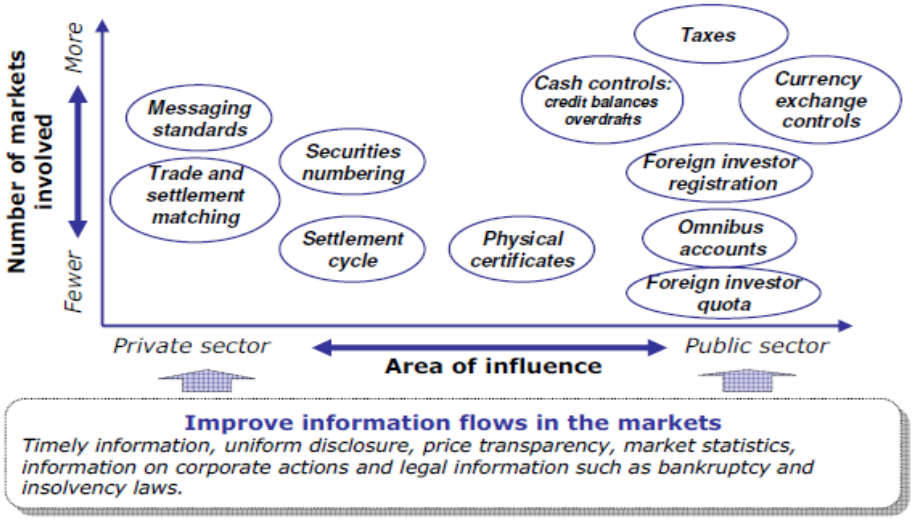
Settlement barriers	Messaging standards Securities numbering Settlement cycle Trade and settlement matching Physical certificates
Regulatory barriers	Foreign investor quota Foreign investor registration Currency exchange controls Cash controls—credit balances Cash controls—overdrafts Taxes Omnibus accounts Regulatory framework Legal framework

GoE = Group of Experts.
Source: Asian Bond Markets Initiative (ABMI) Group of Experts Report for Task Force 4 (TF4).

Therefore, the ABMF should start its discussions by focusing on reducing the information gaps and addressing the settlement barriers.

[50] ABMI Group of Experts (GoE) Report can be downloaded from http://asianbonsonline.adb.org or http://asean3goe.adb.org

Figure 6-28: Major Barriers to Cross-Border Investment and Settlement in ASEAN+3 Markets Identified by the GoE Report



GoE = Group of Experts.
Source: Asian Bond Markets Initiative (ABMI) Group of Experts Report for Task Force 4 (TF4).

- **Collecting Information on regulations and market practices**

Before harmonizing regulations, it is necessary to first collect all relevant information on regulations as well as market structures and practices in the region, and then share this information among members. The GoE identified various barriers to cross-border bond investment and settlement from the perspective of foreign investors. To make the study more comprehensive, it is also necessary to examine regulations on and barriers to cross-border investment from the perspective of domestic investors.

To facilitate the information-collection exercise in each market, the studies on Japanese and Korean markets described in Section 2 can be utilized as a reference to decide what kind of information should be collected. In addition, existing market guides for other ASEAN+3 markets, such as the Malaysian Debt Securities and *Sukuk* Market: A Guide for Issuers and Investors, can also be utilized as a reference. Once all of the relevant information has been collected, a compendium of regulations and market structures and practices in the region will be published through the ADB-sponsored Asian Bonds Online website. Though it will only be a first step, this information-collection exercise should bring large benefits to regional bond markets given the high level of information asymmetry that has led to hesitancy among many investors to participate in Asian bond markets, according to the study by the GoE.

- **Enhancing regional Straight-Through-Processing (STP) by harmonization of transaction procedures and standardization of messaging formats**

The GoE report identifies various settlement barriers, particularly, messaging formats, securities numbering and trade and settlement matching as the major barriers. The ABMF will address these problems and enhance regional STP. This is important because the GoE report also finds that cross-border transaction costs in this region are higher than in other developed markets. It is still unclear why these costs are higher since the study also finds that CSD fees in the region are not significant. Market size and transaction volumes can

provide a partial explanation for the higher custodian costs. In addition, higher costs may be due to some procedures being handled by custodians themselves. If these procedures can be systemized, the costs can be reduced significantly. In this regard, it is important to clarify all transaction processes related to custodians.

It is also necessary to clarify all transaction procedures involved in cross-border transactions from one end-user to the other end-user. Ideally, it is desirable to execute a cross-border transaction without any manual processes or transaction information conversion between domestic systems. This ideal situation can materialize only if all transactions are operated through systems using common standards and the same messaging. This is not currently possible because individual countries have their own system and standards, which is inevitable because certain transaction procedures follow national requirements to account for unique circumstance. In addition, some segments of a market may prefer their own ways of handling transactions, which creates differences in transaction procedures, hence, requires additional conversions to international practices. Further more, differences in languages remain the biggest barrier as some Asian countries use their own letters and characters for communication if we want to integrate Asian retail markets. This will be critical because high Asian savings should be recycled within the region. At this stage, investing in neighboring countries is not easy due to various constraints. Difference in language is one of the constraints, and transaction costs associated with the conversion is a minor but a part of the constraints. For example, Chinese characters and Thai letters need to be converted into alphabets to execute cross-border transactions. This problem could be mitigated if all transactions were executed under the International Organization for Standardization's (ISO) new standard, ISO20022.[51] ISO20022 incorporates technology that can process different national letters and characters. To do so, it is necessary, first, to agree upon business procedures to be standardized, then, to standardize information to be processed under the framework of ISO20022. However, at this moment, there is no such coordinating body to discuss this issue regionally. It would be in the interest of ASEAN+3 members to use ABMF to discuss the use of national letters and characters regionally.

Further more, the work under the forum is expected to contribute to reduction of cross-border transaction costs by increasing competitions among financial telecommunication networks. If the messaging formats and transaction procedures are standardized and unified more, financial institutions may be able to utilize various financial telecommunication networks and make them compete without undermining safety and efficiency. The region needs more efficient and cheaper money and securities transfer system to be benefited from more integrated and harmonized financial markets. By clarifying various cross-border transaction procedures and enhance STP, the costs involved in cross-border transactions can be reduced. The work under the forum is the first step to achieve the goal.

- **Mutual recognition of regulations and standards**

Once identification of regulatory differences in the region through information collection exercise for each bond market is completed, the ABMF may be able to discuss possibility of introducing mutual recognition scheme in the region. In ASEAN, there has been precedent to

[51] International Standard Organization (ISO) is a worldwide federation of National Standards Bodies. ISO20022 provides the financial industry with a common platform for the development of messages in a standardized XML syntax using (i) a modeling methodology (based on UML) to capture, in a syntax-independent way, financial business areas, business transactions, and associated message flows; and (ii) a set of XML design rules to convert the messages described in UML into XML schemas.

introduce mutual recognition in some area of capital market regulations. It is partial and gradual steps towards harmonization in all ASEAN+3 region. It is important to step forward to have a common prospectus standard. In this regard, discussion among stock exchanges and securities commission needs to be encouraged.

In relation to ASEAN Capital Market Forum (ACMF[52]), the ABMF can play a complimentary role; the ACMF is the forum of the regulators while ABMF can be a forum of the private sector to discuss implications of common standards set by the ACMF; or ABMF can be a forum of ASEAN+3 regulators to discuss how to extend the ASEAN common standards to the plus three countries.

To start the discussion, it is necessary to have clear and comprehensive mapping of regulations and market rules, then, we can start discussion of partial harmonization. At this stage, it is not clear which regulations and rules can be mutually recognized or what needs to be changed to make common standards. After successful mapping of regulations, we should be able to prioritize and consider sequencing of harmonization.

- **Regulatory issues related to a common issuance program**

The ABMF may also be able to discuss regulatory issues identified by the study, "Promotion of Asian Medium Term Note (MTN) program" by Nomura Research Institute (NRI). The study identified that local private placement rules needs to be governed by local laws in some countries and can be governed by English laws in the other countries. To have a common issuance program in the region, it is necessary to consider how we can avoid problems arising from conflict of laws, or find common approaches applicable to all markets in the region. Particularly, it is necessary to investigate and identify legal procedures involved in case of insolvency. It is desirable to find a common insolvency procedure, which is especially important to reduce legal uncertainty.

6.4.2. Roadmap of the ABMF

Table 6-38 summarizes the ABMF roadmap in terms of the detailed agenda items.

The proposed issues can be discussed either one-by-one or simultaneously. Information collection exercises and discussions on messaging format standardization can be launched in parallel because the GoE has already discussed and provided recommendations on the standardization of messaging formats.

After the successful launch of the ABMF, it will be necessary to review achievements and plan for future work, particularly on the standardization of messaging formats and settlement-related issues (e.g., security numbering) since these issues require a long-term vision grounded in sound planning and analysis. In addition, if the ABMF becomes recognized as an effective forum for mitigating settlement-related barriers, it can start discussing regulatory barriers in close communication with regulators and central banks.

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[52] The ASEAN Capital Markets Forum (ACMF) comprises securities regulators from 10 ASEAN jurisdictions, namely Brunei Darussalam, Cambodia, Indonesia, Laos PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. It was established in 2004 under the auspices of the ASEAN Finance Ministers, the ACMF initially focused on harmonization of rules and regulations before shifting towards more strategic issues to achieve greater integration of the region's capital markets under the ASEAN Economic Community Blueprint 2015.

Table 6-38: Roadmap of the Asia Bond Market Forum (ABMF)

1. Agreement on the Terms of Reference		2010
2. Establishment of ABMF		2010
Possible issues to be discussed	Information-collection exercise for each bond market in ASEAN+3	2010 to 2011
	Standardization of messaging format	2010 to 2011
	Possibility of introducing mutual recognition scheme in the region	From 2012 or onwards
	Regulatory issues identified through the MTN study	From 2012 or onwards
3. Preliminary review of ABMF activities and discussion on possible agenda items moving forward		Early 2011
4. First round review of the ABMF		Late 2011

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