Compendium of Sound Practices

Guidelines to Facilitate the Development of Domestic Bond Markets in APEC Member Economies

APEC Collaborative Initiative on Development of Domestic Bond Markets

September 1999

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Introductory Chapter

1. At the APEC Finance Ministers Meeting held on 23-24 May 1998 in Kananaskis, Canada, Finance Ministers agreed to begin work on a new collaborative initiative on the Development of Domestic Bond Markets in the region. Hong Kong, China agreed to co-ordinate this initiative.

2. The launch of the collaborative initiative is very timely in giving an impetus to capital market development, which is essential to promoting sustainable recovery in the region. The Asian financial crisis has highlighted the problems of excessive reliance on bank-intermediated financing or on foreign and volatile short-term financing, given the potential problems of currency and maturity mismatches. There is clear consensus that a key priority for the region is to develop deeper, longer-maturity, more stable and more transparent debt markets in Asia in order to recycle the large amount of Asian domestic savings which generally exceed 30% of GDP. This need is especially pressing in the face of falling capital flows into Asia and tight domestic liquidity in the wake of the financial crisis on the one hand, and the significant need for financing the long-term investment and restructuring programmes in the region on the other.

3. Under the collaborative initiative, Hong Kong, China conducted a survey in August 1998 to review the state of domestic bond markets in all APEC member economies and to seek members' views on the potential for development and the impediments to growth. The survey findings revealed an enormous potential for the development of bond markets in Asia in view of the generally high savings ratios and low bond-to-GDP ratios across the region. Outstanding bonds in APEC member economies, excluding US and Japan, represented only on average 34% of their GDP, compared to 105% for the entire APEC region as at mid-1998. This indicates that bond markets in the region are generally under-developed and there is plenty of room for further improvement. The survey further shows that the main impediments to the development of domestic bond markets include a lack of reliable benchmark yield curves, a weak local institutional investors base, insufficient market liquidity, a lack of credible risk assessment and under-developed securities trading, clearing and settlement systems.

4. The findings from the survey[1] were consolidated and reviewed at the Workshop for the Development of Domestic Bond Markets

[1] A report on the summary of responses is at Appendix A.

convened in Hong Kong on 18 December 1998[2]. The Workshop discussed in detail the major impediments to the development of deep and liquid bond markets in the region. The Workshop also heard presentation from some private sector representatives on the difficulties and issues relating to bond market development.

5. The discussions at the Workshop were very useful and members agreed to pursue two suggestions to further the objectives of this initiative. The first project is the compilation of a Compendium of Sound Practices to cover five areas critical to the development of domestic bond markets, namely **Government Policies, Regulatory Framework, Market Infrastructure**, **Liquidity** and **Risk Management**. The Compendium would serve as guidelines to facilitate the development of domestic bond markets in APEC member economies. The second project is a Website which would provide a resource centre for sharing information about the debt markets in APEC member economies. The Website would link up relevant reports, statistics and other details concerning the development of domestic bond markets. The Asian Development Bank has agreed to set up this APEC Bond Market Initiative Website on behalf of the APEC member economies. The Website is attached to the ADB Internet site[3] and preparation is in progress.

6. A number of member economies and international financial institutions have agreed to participate in the above two projects. Another Workshop was convened in Hong Kong, China on 28 May 1999 to discuss issues in relation to the five areas referenced above. The objective was to come up with a list of essential elements under these five areas for inclusion in the Compendium of Sound Practices.

7. The discussions in the May Workshop were followed by collaboration in preparing the list of essential elements and a draft report on the work undertaken by this Collaborative Initiative to prepare a Compendium of Sound Practices. All APEC member economies and relevant international financial institutions were invited to attend a final Workshop held in Hong Kong on 3-4 August 1999[4] to discuss the draft

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[2] The Workshop was attended by representatives from finance ministries, central banks, monetary authorities of Australia; Brunei Darussalam; Canada; People's Republic of China; Hong Kong, China; Indonesia; Japan; Korea; Malaysia; New Zealand; Singapore; Chinese Taipei; Thailand and the United States of America.

[3] As a first stage of development, the Website contains the following content: background information about the APEC collaborative initiative on Development of Domestic Bond Markets, Compendium of Sound Practices, related publications on bond market development, hyperlink with other relevant websites, contact list of APEC member economies and "What's New" highlighting new postings on the Website.

[4] The Workshop was attended by representatives from finance ministries, central banks and monetary authorities of Australia; People's Republic of China; Hong Kong, China; Indonesia;

report and the Compendium. Participants exchanged views on the Compendium and agreed that the report would be submitted to the Finance and Central Bank Deputies at their meeting to be held in Wellington, New Zealand on 26-27 August 1999. Participants also agreed to update the statistics of the August 1998 survey by the end of 1999 to cover 1998 data and the results would be posted to the Bond Market Initiative Website for public access.

8. Participants at the final Workshop have considered the possibility of pursuing further work of the Collaborative Initiative, in particular on the formulation of specific guidelines for implementation of the sound practices embodied in the Compendium. However, noting that similar work on such implementation manuals were being pursued in some other forums, participants agreed that the need for further work under this Collaborative Initiative should be considered after reviewing those initiatives to avoid unnecessary duplication of efforts.

9. The current report summarises the work undertaken in pursuance of the Collaborative Initiative and is presented to the Finance and Central Bank Deputies.

Japan; New Zealand; Peru; Republic of Philippines; Russia; Singapore; Chinese Taipei; Thailand and the United States of America.

Executive Summary

1. A mature and liquid debt market can improve resource allocation by effectively channelling both local and foreign savings into domestic investments and can diversify the investment channels for both retail and institutional investors. Greater diversification of financing and investment channels is beneficial to the stability of financial markets.

2. Determined and proactive efforts of the relevant government authorities, regulatory bodies and market participants are essential for fostering an environment conducive to the development of the domestic bond market. The important factors influencing the development of domestic bond market can be grouped into five main categories: **Government Policies**, **Regulatory Framework**, **Market Infrastructure**, **Liquidity** and **Risk Management**. The following recapitulates the main elements under these five distinct but related areas, which together would provide a key impetus to bond market development.

Government Policies

3. The Government is a key actor and can play various roles as an issuer, regulator, facilitator, promoter and catalyst in the early stage of bond market development. In fact, the government bond market is very often expected to be the foundation for the broader domestic bond market.

4. To manage the potential tension between policy objectives which could in turn disrupt the stability of financial markets, it is important that the government defines and prioritises policy objectives regarding debt management and bond market development and identifies the constraints in achieving the set objectives. The government should also ensure that the strategies for sovereign debt management and bond market development are consistent with the fiscal and monetary policies and the overall financial sector development strategy. The government should review the policies and practices which could impede the development of domestic bond market, including reducing unnecessary tax burdens and distortions. Very often, the government can play a key role in promoting the development of domestic bond market.

5. The following elements in relation to the role of government policies in the development of domestic bond markets have been identified.

Element 1: The government should strive to strike a balance between its sovereign debt management policy and a strategy for domestic

bond market development. In doing so, it should define and prioritise objectives regarding debt management and bond market development, and identify constraints in achieving the set objectives.

Element 2: The government can play a catalytic role in the development of a nascent domestic bond market. It should develop a comprehensive strategy in consultation with the central bank, the relevant regulatory agencies and market participants. The strategy should address the various roles played by the government and relevant parties: as issuer, regulator, facilitator or, where appropriate, provider of market infrastructure. As a first step, there should be a review of policies and practices that could impede the development of the domestic bond market so that they can be revised or removed as appropriate.

Element 3: Where there is a government bond programme, there should be a sound legal framework aiming to enable the government to borrow flexibly from the domestic bond market. The legal framework should provide a clear basis for the contractual relationship between different parties.

Element 4: The government should promote a level playing field with consistent tax policies for all financial instruments and market participants. In order to facilitate the development of domestic bond markets, the government should also reduce unnecessary tax burdens and distortions and other impediments.

Element 5: The government should ensure that the strategy for sovereign debt management and bond market development be consistent with fiscal and monetary policies and financial sector development strategy.

Element 6: Normally there is a phased approach to the development of the domestic bond market through, for instance, consensus building, primary market development for government securities, secondary market development for government securities, and corporate bond market development.

Regulatory Framework

6. An effective regulatory and supervision framework for a bond market, intermediaries, institutional investors and other market participants should provide for adequate investor protection and sound business practices or codes of conduct that reduce systemic risks to the minimum. This requires clearly defined market rules, a high degree of transparency as well as high prudential standards and governance principles that recognise

the importance of fiduciary obligations. There should be a combination of internal and external checks and surveillance to monitor compliance with the regulatory framework.

7. Clarity in the roles, responsibilities, and objectives of the regulatory authorities is essential for maintaining transparency and public confidence in the regulatory framework. Sometimes, effective regulation is complicated by the vast array of financial instruments, diversity of bank and non-bank participants in the bond market and the existence of financial conglomerates engaging in a wide range of investment activities. Clear legal definitions and enhanced co-operation and co-ordination between different regulatory authorities, including self regulatory organisations, is therefore essential to avoid regulatory gaps and duplications.

8. In general, regulatory authorities should strive to avoid impeding market innovation through their regulatory measures. Sound criteria should also be established when using credit ratings as a regulatory tool.

9. The following elements in relation to the regulatory framework for domestic bond markets have been identified.

Element 7: There should be an environment for full, timely, and accurate disclosure of information material to investment decisions. A combination of tools such as on-site inspections, off-site surveillance, internal and external audit along with a strong code of conduct and high fiduciary standards are needed to ensure the adequacy of safeguards for the protection of investors. High and internationally accepted accounting standards should be adopted in the market.

Element 8: For the vetting of applications for exemption of securities from public offering disclosure requirement, there should be objective criteria to differentiate between public offering and private placement and to distinguish sophisticated institutional investors from other investors.

Element 9: The regulation of institutional investment and contractual savings institutions should include good governance principles that promote high fiduciary standards in the provision of trust and investment management services.

Element 10: Clarity in the roles, responsibilities, and objectives of the regulatory authorities is essential in maintaining transparency and public confidence, as well as in reducing the potential for gaps and overlaps in the coverage of regulation and supervision. An open and

transparent rule making process is necessary to encourage public comment and to facilitate compliance.

Element 11: Regulation should promote transparency in trading and price reporting and to deter manipulation and unfair trading practices. Where debt securities are listed on stock exchanges or other trading facility, objective criteria for the listing and de-listing of debt securities should be established.

Element 12: All intermediaries should be registered, regulated, and supervised by an appropriate regulatory authority. The regulatory authority should establish uniform regulatory, compliance and enforcement standards for intermediaries. In general, the authority should as far as possible strive to avoid impeding market innovation through their regulatory measures. When different regulatory authorities are involved in the regulation of intermediaries, there should be enhanced co-operation between these authorities to avoid unnecessary duplication and overlap. SROs can be effectively used to enhance the regulation of market intermediaries.

Element 13: The legal and regulatory framework should clearly differentiate between bank deposits, money market instruments and debt instruments and set out the respective applicable regulatory regime. It is important to define debt instruments carefully to avoid the creation of potential regulatory gaps or unequal regulations of similar financial products.

Element 14: Sound criteria should be established for external credit assessment institutions used in the administration of prudential and other regulatory standards.

Element 15: There must be a clear legal mandate for the government or the regulatory authority to exercise appropriate and adequate oversight in order to ensure that self-regulatory organisations are performing their duties in a fair and transparent manner. Good governance of self-regulatory organisations, for example, balance of interest between members and non-members, should also be encouraged to instil confidence in their regulatory and disciplinary functions.

Market Infrastructure

10. Robust market infrastructure is indispensable for the smooth functioning of a debt market. These systems should be governed by clear and unambiguous rules and procedures that are soundly enforced and made freely available to interested parties. Such information would enable

market participants to understand clearly their roles, responsibilities and liabilities. It also allows market participants to form clear expectations about the operation of the systems in times of stress and the financial risks involved.

11. An effective regulatory regime should be established to ensure overall systemic safety and stability of the market infrastructure. Various categories of risks should be properly addressed and controlled with the provision of relevant information on a timely basis and by shortening the settlement cycle. In order to achieve a high degree of reliability and integrity, contingency plans should be established for the potential failure of each critical component.

12. The following elements in relation to the market infrastructure for domestic bond markets have been identified.

Element 16: There should be clear and unambiguous rules and procedures that govern all aspects of the operations of a market infrastructure system. These rules should be made freely available to all interested parties with fair and open access to a system based on objective criteria.

Element 17: The legal enforceability of the system's rules and procedures in all relevant jurisdictions should be established.

Element 18: An effective regulatory regime should be established with one or more institutions as appropriate, explicitly identified to ensure sound risk management and efficient operation of the systems.

Element 19: The risk management procedures should address the various categories of risks, including principal and liquidity risks. The introduction of delivery-versus-payment procedures substantially addresses the principal risk. Systems should ensure that suitable contingency arrangements are in place in the event that a counterparty is unable to settle an obligation when it becomes due.

Element 20: Assets used for final settlement should preferably not present the holder with credit risk, and where possible should take the form of a claim on the central bank.

Element 21: In order to reduce replacement cost risks, it is preferable for the settlement of trades to take place as soon as possible after the trade has been confirmed. A common benchmark is to ensure that settlement lags are kept to T+3 days or shorter.

Element 22: ***For effective risk control, systems need to provide relevant information to participants on a timely basis.***

Element 23: ***There should be suitable contingency arrangements to handle system problems caused by internal operations or external service providers.***

Liquidity

13. Bond market liquidity facilitates efficient market pricing as well as economically efficient borrowing and investment decisions. Certain key elements would assist in enhancing the liquidity of domestic bond markets. Accurate and reliable benchmark yield curves enable market participants to price the credit and liquidity of domestic debt issues appropriately. Certainty about reliable pricing for bonds in the domestic market encourages investors and intermediaries to participate in the market. The availability of information on issuer decisions and actions and on market conditions enables better investment decisions to be made and enhances the interest of intermediaries and investors.

14. A fully competitive trading structure and standardised trading and settlement processes which are efficient and reliable should enhance liquidity by minimising transaction costs. A market with diverse participants is also important in enhancing market liquidity.

15. The following elements in relation to the liquidity of domestic bond markets have been identified.

Element 24: ***Accurate and reliable benchmark yield curves enable market participants to price the credit and liquidity of domestic debt issues appropriately.***

Element 25: ***A number of measures could help to build up an accurate and reliable benchmark yield curve. These include regular issuance of bonds at appropriately spaced benchmark maturities along the entire yield curve in order to build up liquidity, large volume issuance or suitable re-opening of bond issues to maintain liquidity, and issuance of new bonds of long maturity to maintain the length of the yield curve.***

Element 26: ***Measures should be taken to enhance transparency in the primary and secondary markets to promote market participation, and hence market liquidity. For example, disclosure of information about the general issuance strategy could help market participants to formulate their investment strategies. Also, trade information in the secondary***

market should be promptly disclosed to the public, with due attention to ensuring anonymity of market participants.

Element 27: Transaction costs should be kept low to enhance trading activities. This can be achieved through maintaining a competitive dealer structure for trading activities and standardising trading conventions and settlement processes. The liquidity impairing effects of taxation should be minimised.

Element 28: Market access should be available to diverse participants. Heterogeneity of market participants with a variety of transaction needs and investment horizons would promote liquidity.

Element 29: Consideration could be given by the relevant authorities to developing derivatives markets and facilities such as futures markets, swaps markets, repo markets and securities lending facilities as appropriate to facilitate different investors in constructing their investment portfolios and risk management strategies, hence increasing liquidity and trading activities.

Risk Management

16. Effective risk management by both the issuers and investors is important in fostering the development of domestic bond markets. This is particularly so for the government as the key issuer in the bond market. As a first step, a risk audit should be conducted to accurately assess the risks that an issuer faces. Vulnerability to market shocks could be reduced by properly managing the risks identified. As far as sovereign debt management is concerned, some simple rules for managing risks can be derived from a range of risk management frameworks. The asset and liability management (ALM) approach is one conceptual framework which can be deployed for dynamic as well as static risk management. With financial contracting, bond issuers can also reduce their risk exposure by transferring risks to other market intermediaries.

17. For an investor to effectively monitor, measure, and control the major risks related to fixed-income investments, a core set of sound risk management practices is a necessity and such practices should be promoted at least among the major public and private bond investors. The Board and senior management of institutions that invest in bonds should formulate sound investment and risk management policies. There should be clear delineation and segregation of duties and responsibilities between risk-taking and risk-monitoring, as well as robust internal control systems.

18. Credit rating agencies play an important role in bond market development. In order to enhance the credibility of credit rating services, governments should exercise care in designing rating-related policies. In general, governments should avoid setting minimum credit rating requirements for bond issuers and should carefully evaluate the potential implication for the financial system and financial market participants when considering any ratings-based regulations. Credit rating agencies should also be encouraged to maintain the highest possible level of transparency and objectivity in their rating process.

19. The following elements in relation to risk management for domestic bond markets have been identified.

Element 30: Governments as well as private issuers should conduct a risk audit to identify the exposure of its bond programme to various risk categories such as liquidity, maturity and currency mismatch risks, as well as risks arising from explicit and implicit government guarantees.

Element 31: Governments and private issuers should maintain a debt profile that provides protection against temporary market disruption. Simple rules relating to the maturity and currency structure of debt, and to liquid reserves, can be employed. At a later stage of development, the Asset and Liability Management approach can be used as a conceptual framework for dynamic as well as static risk management.

Element 32: Government and private issuers may try to conduct risk-sharing through financial contracting to hedge against the potential costs arising from adverse market conditions. They could consider using derivatives securities for this purpose but they should fully understand the risks involved and implement appropriate risk management systems.

Element 33: Bond investors should formulate sound investment and risk management policies, with clear delineation and segregation of duties and responsibilities between risk-taking and risk-monitoring, and robust internal control systems.

Element 34: Government should avoid setting minimum credit rating requirements for bond issuers in order not to divert issuance into unregulated channels that may ultimately raise the overall financial risk profile.

Element 35: Government should avoid an over-reliance on credit rating agency assessments and, when considering any ratings-based regulations, should carefully evaluate the potential implication for the

financial system and financial market participants, including credit rating agencies.

Element 36: Credit rating agencies should be encouraged to maintain and improve their credibility and reputation by avoiding conflict of interests in their ownership, staffing and decision-making processes; allowing issuers to comment on draft rating opinions when possible; maintaining the highest possible level of transparency and objectivity in the rating processes; and publicly disclosing their policies on unsolicited ratings.

Chapter One

Government Policies

1. In the early stage of bond market development, the government is a key actor – as an issuer, regulator, promoter and catalyst. Sometimes these roles may come into conflict, especially in the development phase. On the one hand, large volume government issuance implies large fiscal deficits and upward pressure on interest rates. On the other hand, a large volume of issuance provides a critical level of supply for the fledgling bond market. A willingness to finance deficits through bond sales in open competitive markets is crucial to the development of the market and maintaining monetary policy independence, although it may initially mean higher cost of issuance and less direct control over financial institutions. This chapter begins with the exploration of these various roles of governments in emerging bond markets.

Objectives and Strategy of Bond Market Development and Sovereign Debt Management

2. Sovereign debt management and bond market development are in fact highly inter-dependent. There is an intuitive link between the two in the sense that government bond market is very often expected to be the foundation for the broader domestic bond market. The government's various actions as a regulator and market participant can have definitive impact on the development of the domestic market. The government has an interest in maintaining a deep and liquid domestic bond market to facilitate, among other things, its debt management.

3. However, there is also a tangential link between the two and this needs to be borne in mind in the formulation of a strategy to develop the bond market while meeting the objectives of sovereign debt management. This tangential relationship originates from the fact that the government is only one of the many market participants, albeit an important one, and market development is a dynamic process while debt management is primarily concerned with achieving an optimal debt profile, having regard to fiscal and monetary policy objectives.

4. For example, there are situations in which measures useful or necessary to achieve the objective of debt management can lead to tension with the objective of bond market development, depending on the circumstances or the level of development of the market. To illustrate, the government is often under pressure to reduce its deficits and borrowing. Bond market development, on the other hand, requires, among other things,

significant volume of issuance in benchmark segments of the market and the government is usually a major issuer in the market. When a government decides to borrow, it may have the option to borrow more cheaply from domestic financial intermediaries or external sources, especially when the domestic bond market is underdeveloped. Government bond market development, therefore, requires the government's commitment to developing a borrowing practice targeting the domestic debt market and a policy vision that the bond market needs to be developed for the benefit of the economy.

5. When the government does borrow from the domestic bond market, it would wish to make sure that the market has sufficient depth to support the amount of borrowing by the government and at the time it is needed. The government should also be concerned about minimising the cost and risks associated with the specific borrowing and the total outstanding debt at any given time. These objectives must be met at the same time that the capacity and institutions in the primary and secondary markets are being developed. Therefore, a critical first step in formulating a strategy is to define and prioritise policy objectives regarding debt management and bond market development and identify constraints in achieving the set objectives.

Element 1: The government should strive to strike a balance between its sovereign debt management policy and a strategy for domestic bond market development. In doing so, it should define and prioritise objectives regarding debt management and bond market development, and identify constraints in achieving the set objectives.

The Government's Role in a Comprehensive Bond Market Development Programme

6. When the government commits itself to a policy of developing the nascent domestic bond market, it will need to perform a role of catalyst or promoter in various functions such as issuer, regulator and co-ordinator. As a large issuer, the government can standardise government bond designs and regularise issue practices. That will facilitate primary market issuance and trading, generate liquidity and establish a benchmark yield curve. The government and the central bank can also assist in building the necessary market infrastructure, e.g. custody and settlement facilities, to support the market.

7. The government or its appropriate agencies need to perform the role of a regulator and supervisor of the financial industry and the market. For example, it can remove legal and regulatory impediments to competition, rationalise tax distortions on bond investments and trading,

promote transparency and disclosure to protect investors' interests, and encourage effective market-making. These issues are discussed more fully in Chapter Two of the report.

8. As a co-ordinator, the government should develop consensus both within and outside the government and establish a development policy and strategy for bond market. In light of the close inter-relationship between bond market development and other economic activities, a high-level co-ordination committee could be created to supervise the bond market development agenda. Such a committee would include representatives from the central bank, applicable regulatory bodies for the securities market, the ministry of finance (funding and debt management functions) as well as key market participants. Furthermore, it should have clear terms of reference, and the unequivocal support of the government to propose appropriate recommendations with respect to the development of the domestic debt market. The committee should ensure that the bond market development agenda is consistent with debt management mandates, and the objectives of fiscal and monetary policies.

9. Finally, and most importantly, in fulfilling these various roles, the government must maintain its perspective as a promoter of bond market development and avoid excessive market intervention. For instance, short-term increases in debt costs may be an acceptable trade-off to ensure the successful issuance of long-term debt and the resultant creation of a benchmark yield curve.

Element 2: The government can play a catalytic role in the development of a nascent domestic bond market. It should develop a comprehensive strategy in consultation with the central bank, the relevant regulatory agencies and market participants. The strategy should address the various roles played by the government and relevant parties: as issuer, regulator, facilitator or, where appropriate, provider of market infrastructure. As a first step, there should be a review of policies and practices that could impede the development of the domestic bond market so that they can be revised or removed as appropriate.

10. Government bonds often require a special mechanism for primary issuance. The government and the central bank as an issue agent can organise such a mechanism. For this purpose, it is important to have a clearly defined legal framework. First of all, the government's ability to borrow from the domestic bond market should be legally well defined and sufficiently broad to achieve a range of objectives. These could include the ability to borrow to finance public sector investment in addition to financing deficits, and the ability to issue bonds and bills for refinancing and short-term cash management purposes.

11. The relationship between the government as an issuer and the central bank as an issue agent should also be clearly set out. The contractual relationships between underwriters or winning bidders and the government as an issuer should also be legally well defined. For example, a winning bidder's failure to settle the purchase should be considered as default, and there should be appropriate and effective legal and regulatory enforcement or remedy procedures for it. Similarly, there should also be legally well-defined contractual relationships between the secondary and the primary participants of the primary market.

Element 3: Where there is a government bond programme, there should be a sound legal framework aiming to enable the government to borrow flexibly from the domestic bond market. The legal framework should provide a clear basis for the contractual relationship between different parties.

12. In many economies with nascent bond markets, the formulation of the tax structure may not have given sufficient consideration to avoiding distortions in taxation of income from savings and various types of investment, including bond transactions. Debt markets are very sensitive to tax incentives. Any bonds or types of transactions which are disadvantaged in terms of tax are often hardly used. Distortions mean favouring some instruments, services or industry segments over others. This also means existence of loopholes in the tax system, making tax collection inefficient and ineffective. Consideration of tax collection inevitably requires consideration of accounting rules for income, gains and losses from investment in and trading of bonds. The tax authority, the securities market regulator and financial industry regulator(s) as well as government agencies should consult closely with market participants to avoid excessive distortions or impediments to enhance investors' demand for bonds and ease of trading.

13. In principle, a system of capital income taxation should treat incomes from all types of investments and savings fairly, including bank deposits, equity, quasi-debt or quasi-equity instruments as well as bonds and other debt instruments. Excessive distortions in the system of capital taxation affect the attractiveness of instruments not only for investors and savers but also for issuers and borrowers. It can, therefore, affect financing behaviour of issuers and borrowers. Therefore, authorities should be careful not to create tax incentives for unhealthy financial behaviour.

14. Repurchase agreements (repos) are instruments that provide short term liquidity to the market. Repos and the short sale of bonds are

particularly sensitive to transaction taxes. The tax system should give economic recognition to these financing tools.

Element 4: The government should promote a level playing field with consistent tax policies for all financial instruments and market participants. In order to facilitate the development of domestic bond markets, the government should also reduce unnecessary tax burdens and distortions and other impediments.

Bond Market Development: Interaction with Macroeconomic Policy and Financial Sector Development Strategy

15. Tension between policy objectives can arise if government debt issuance is large enough to affect interest rates. Attempts are often made to minimise the effect on interest rates (and reduce the cost of debt issuance). One approach is to require regulated entities to purchase government bonds at controlled interest rates; another by influencing monetary policy. Such actions create problems for the independence of monetary policy, and hamper the development of the bond market.

Maintaining the independence of monetary and fiscal policy

16. A large amount of government bond issuance to finance a large government deficit can crowd out borrowing opportunities for the private sector. At times, the resulting pressure on interest rates may be appropriate from a monetary policy perspective, but unwelcome from a fiscal perspective. It is important that the independence of monetary policy be maintained, in order that monetary policy can fulfil its mandate. Important to maintaining monetary policy independence is a recognition by the government, as a price taker, that it should accept the interest rates determined by the market, while continuing to fund its requirements in the financial markets.

Conduct of monetary policy

17. The relative importance of different tools used by central banks to implement monetary policy varies among economies. For economies with developed government bond markets, open market operations (i.e. the purchase and sale of government securities in the secondary market by the central bank), and an active repo market are common methods to implement monetary policy.

18. In many emerging economies, due to the absence of a developed domestic bond market, the central bank often resorts to direct credit controls as well as the issuance of its own instruments as monetary

policy tools. The domestic bond markets, including both the primary and secondary markets, must be developed in order to provide efficient indirect instruments for better execution of monetary policy.

19. A related consideration is that the monetary impact of selling government bonds and subsequent spending of the funds by the government differs depending upon the purchasers of the bonds. For example, issuance of bonds by the government directly to the central bank will be the most inflationary since subsequent spending of the funds will directly increase the monetary base, and therefore, should be avoided.

20. Reserve requirements for banks are usually also a tool of money supply control by the central bank. Government bonds are often accepted as part of such required reserve, which induces a demand for government bonds and allow the government to raise debt at sub-market interest rates. That can be seen as an implicit tax on banks and distort market pricing mechanism in the primary market. The primary market's failure to price the bonds at fair market value would in turn impede trading in the secondary market since the original buyers would face a disincentive to sell the bonds, as they would be forced to recognise losses if they do so. Hence, policy for reserve requirements needs to be considered carefully beyond their role as a means of monetary policy.

Consistency with the overall financial sector development strategy

21. In principle, the development of the bond market should be consistent with, and complementary to, the development of the financial sector. A wide range of financing and investment opportunities should be available to the market. Moreover, the skills and infrastructures necessary for deep and liquid debt markets are also integral to sophisticated financial markets.

22. In the early stage of development, however, existing financial intermediaries may be threatened by open competition from debt markets. These intermediaries may also not have the knowledge or skills to allow their effective participation in the bond market. Access to the market by new and specialised institutions – including foreign financial institutions – may provide an effective route to support the development of domestic bond markets.

Element 5: The government should ensure that the strategy for sovereign debt management and bond market development be consistent with fiscal and monetary policies and financial sector development strategy.

The Road Map for Bond Market Development and the Involvement of the Government

23. Based on past experience with respect to implementing a debt market development programme, the following outlines a stylised four-stage development approach.

24. In the initial stage, emphasis should be put on consensus building. For example, parallel seminars can be conducted to cover both sovereign debt management and bond market development. The purpose is to build a consensus through discussions among the government, the central bank and key market participants regarding: the importance of bond market development for effective debt management; the importance of consistency between bond market development and macroeconomic policies; and the overall strategy to develop the domestic bond market.

25. In the second stage, the development of an effective primary market for government securities would be emphasised. The government is encouraged to strengthen its cash management capability. In particular, the ability to forecast government's cash needs and find out market absorption capacity with respect to different types of instruments needs to be strengthened. Treasury bill markets, as part of money market development, can be first developed, and the government is thereafter encouraged to extend gradually the maturity spectrum of its treasury bonds and widen the range of targeted investors beyond the banking system. It is crucial for the development of the primary market to be consistent with the government's sovereign debt management programme such as its funding strategy and risk management programme, and the central bank's policy on open market operations. At this stage, various auction methods can be explored with a view to adopting the appropriate model which can serve to enhance efficiency of bond issuance. Regularity, standardisation and fungibility of bond issuance should be pursued, and advantages and disadvantages of a system such as a primary dealer system considered to ensure competitive bidding by participating financial institutions.

26. In the third stage (which often overlaps with the work performed in the second stage), the development of a secondary market for government securities would be the centrepiece. With a view to improving market liquidity, three aspects of a work programme should be pursued. First, the market infrastructure should be enhanced, including the legal and regulatory framework, the clearing and settlement systems, the market for repurchase agreements, and bond lending arrangements as appropriate. Secondly, a comprehensive study should be conducted to first identify and then commence the process of mitigating the adverse effects of legal, regulatory, accounting and tax impediments to investment in and trading of bonds. Thirdly, the bond market information dissemination mechanism

should be enhanced to facilitate trading and protect investors' interests, and the role of intermediaries such as market makers and inter-dealer brokers should be enhanced with the objective of improving the depth and liquidity of the market. Establishment of a bond or interest futures market also merits consideration when the cash market has attained an adequate level of maturity.

27. At the final stage, the development of an efficient corporate bond market should be emphasised. Transparency and disclosure requirements, the appropriate utilisation of credit rating agencies, tax and other regulatory issues should be addressed during this stage.

Element 6: Normally there is a phased approach to the development of the domestic bond market through, for instance, consensus building, primary market development for government securities, secondary market development for government securities, and corporate bond market development.

Chapter Two

Regulatory Framework[5]

28. The regulation and supervision of bond markets, intermediaries, institutional investors and other market participants must include systems and procedures to protect investors, to promote sound business practices, and to address systemic risk issues. Since there is a wide array of institutional arrangements governing the operation of bond markets around the world, there is considerable diversity in the regulatory framework applicable to bond markets and the intermediaries serving those markets. Many economies have several authorities responsible for the regulation and supervision of bond markets. National government bonds, municipal bonds, and corporate bonds are likely to have differing regulatory requirements and several supervisory bodies could be involved in their regulation. Bond market regulation is also complicated by the diversity of bank and non-bank intermediaries providing financial services to issuers and investors.

Investor Protection and Fiduciary Responsibilities

29. An important goal in developing a regulatory framework for domestic bond markets is investor protection. Investors need full, timely and accurate disclosure to make informed investment decisions. This requires clearly defined market rules and high transparency standards. Market rules should specifically include procedures to deal with misrepresentation, fraud, and mechanisms for investors to seek redress. In more mature markets, the main focus is on the disclosure of information rather than on the merits of the issuer ("merit regulation"). Under the full-disclosure approach to regulation, investors rather than the regulator have the responsibility for evaluating the merits of an investment. As a practical matter, investors often rely on private analysts, credit rating agencies, brokers, investment advisors, or other securities market professionals to evaluate the available information about an issuer or the securities being offered. In the absence of adequate accounting, auditing, and financial reporting, it is not possible for the securities markets to properly value a security. In nearly all emerging markets, greater emphasis is now being placed on the adequacy of accounting, auditing and disclosure standards. Nevertheless, "merit regulation" is still employed in some fashion in many emerging debt markets.

[5] The sound practices developed in this chapter draw upon guidelines and criteria in a number of international forums including Bank for International Settlements (BIS), International Monetary Fund (IMF) and the International Organization of Securities Commissions (IOSCO).

30. Regulators should not rely too heavily on one component of the regulatory scheme. Where possible, government regulation and supervision should be supplemented by external compliance checks. This includes an annual external audit requirement, adequate internal controls and compliance procedures, and the judicious use of external credit ratings in the administration of prudential and fiduciary standards.

Element 7: There should be an environment for full, timely, and accurate disclosure of information material to investment decisions. A combination of tools such as on-site inspections, off-site surveillance, internal and external audit along with a strong code of conduct and high fiduciary standards are needed to ensure the adequacy of safeguards for the protection of investors. High and internationally accepted accounting standards should be adopted in the market.

31. There should be a clear differentiation of private placement and public offering to assess the appropriate level of regulation required. Privately offered debt securities might be exempt from full public disclosure requirements if offered to only a limited number of investors (e.g. less than 30). Likewise, a special class of debt securities could be exempt from the disclosure requirements applicable to a public offering if the security is made available only to a limited number of sophisticated investors which are clearly defined in terms of size, income, or other objective criteria (e.g. U.S. 144A offerings to Qualified Institutional Buyers).

Element 8: For the vetting of applications for exemption of securities from public offering disclosure requirement, there should be objective criteria to differentiate between public offering and private placement and to distinguish sophisticated institutional investors from other investors.

32. Institutional investors and contractual savings institutions are important investors in the bond markets, but they will not flourish without public confidence in their soundness. They might best be regulated by the application of high prudential standards and governance principles that recognise the importance of fiduciary obligations. This might include such concepts as the "prudent man rule" which is widely employed in the U.S., U.K. and in a number of other countries to give guidance in the administration of fiduciary obligations. Under this concept, a fiduciary would be expected to discharge his duties with the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent man acting

in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims.

33. Another way to regulate institutional investment and contractual savings is by employing investment guidelines administered by regulatory authorities such as an insurance commission or the supervisor of pensions. In devising such investment guidelines, regulators often rely upon an external credit assessment provided by credit rating agencies, but as discussed later in Chapter Five, care needs to be exercised when incorporating reference to credit ratings into rules and regulations. Also, high fiduciary and prudential standards should be used to supplement the use of investment guidelines. How institutional investment is regulated has implications for investor protection, bond market efficiency, and development.

Element 9: The regulation of institutional investment and contractual savings institutions should include good governance principles that promote high fiduciary standards in the provision of trust and investment management services.

Transparency, Efficiency, and Fair Markets

34. In view of the diversity of bank and non-bank participants in the bond market, defining roles, responsibilities, and objectives of the relevant regulatory authorities is essential for a well-organised market. Defining respective roles and responsibilities to minimise overlap and conflict is sometimes complicated by the existence of financial conglomerates that engage in banking, securities, and other financial services as well as serving in the capacity of dealer or broker in debt instruments.

Element 10: Clarity in the roles, responsibilities, and objectives of the regulatory authorities is essential in maintaining transparency and public confidence, as well as in reducing the potential for gaps and overlaps in the coverage of regulation and supervision. An open and transparent rule making process is necessary to encourage public comment and to facilitate compliance.

35. Transparency in secondary market price reporting and trading activity is important to the valuation of securities. It contributes to pricing efficiency and thereby aids in establishing a market-based yield curve. Securities market surveillance and reporting is normally the front line responsibility of the stock exchange or dealers association as a self-regulatory organization (SRO), with a securities commission or similar

regulatory body acting in an oversight capacity. Price and volume information may be more difficult to obtain if trading primarily takes place over-the-counter among institutional investors.

36. The appropriate level of disclosure of large exposures and position concentrations, risk management techniques, and the use of derivatives by market participants can be useful for enhancing market transparency and stability. It can also help impose strong market discipline on an institution to manage its activities and risk exposures in a manner that is both prudent and consistent with stated business objectives. This will reduce counterparty risk and improve the safety of secondary market operations.

37. A properly functioning debt securities market requires that objective criteria be established and adhered to for the listing and de-listing of debt securities on the stock exchange or other trading facility. In some less developed markets, de-listing standards are not always enforced out of concern for possible adverse effects on investors. However, this can also contribute to a loss of confidence in the market in the event that sound corporate governance principles or financial reporting obligations are not being observed.

Element 11: Regulation should promote transparency in trading and price reporting and to deter manipulation and unfair trading practices. Where debt securities are listed on stock exchanges or other trading facility, objective criteria for the listing and de-listing of debt securities should be established.

38. All intermediaries should be registered, regulated and supervised by an appropriate regulatory authority and uniform standards applied to all market instruments and intermediaries. It is important to prevent regulatory arbitrage between products and markets. This requires adequate procedures for monitoring compliance and enforcement of applicable rules and regulations. An open and transparent rule-making process can help clarify the roles, responsibilities, and objectives of regulators. There should be adequate notice of rulemaking. In this regard, financial regulators should consider having a formal announcement of proposed rule-making on a regular basis in a government gazette, register or similar publication which would be accompanied by the text of the proposed rule or rules inviting public comment for a specified period of time. If adopted, the text of the final rule should be published with advance notice specifying the date for initial compliance.

39. The regulation and supervision of intermediaries can be enhanced with the aid of SROs and an internal compliance office within the

firm. Particularly challenging tasks for emerging markets include coming to grips with the special problems associated with mark-to-market accounting and the need to evaluate credit risk in an environment where the quality of information disclosure may not be sufficient to meet market needs.

Element 12: All intermediaries should be registered, regulated, and supervised by an appropriate regulatory authority. The regulatory authority should establish uniform regulatory, compliance and enforcement standards for intermediaries. In general, the authority should as far as possible strive to avoid impeding market innovation through their regulatory measures. When different regulatory authorities are involved in the regulation of intermediaries, there should be enhanced co-operation between these authorities to avoid unnecessary duplication and overlap. SROs can be effectively used to enhance the regulation of market intermediaries.

40. Laws and regulations should make a clear distinction between bank deposit, deposit substitute, money market instrument, and longer term fixed-income securities issued in the form of notes or bonds. This is important in the context of allocating regulatory responsibilities, the taxation of financial instruments and, in some instances, for the establishment of reserve requirements at deposit-taking institutions. The legal definition of debt securities would normally cover notes and bonds with maturities of one year or more but it could also include short-term debt instruments such as commercial paper. In this regard, commercial banks tend to play a larger role in the money market and government securities markets while investment banks, merchant banks, and securities firms more often serve as intermediaries in the capital market for private debt and equity securities. With respect to dealing (i.e., acting as market maker) in government debt securities, both commercial banks and non-bank dealers and brokers commonly play a significant role in the market. The use of the stock exchange or a bond dealers association as a front-line SRO with government oversight would also meet this criterion.

Element 13: The legal and regulatory framework should clearly differentiate between bank deposits, money market instruments and debt instruments and set out the respective applicable regulatory regime. It is important to define debt instruments carefully to avoid the creation of potential regulatory gaps or unequal regulations of similar financial products.

Maintaining Stable Markets and Minimising Risk

41. Credit ratings are often used as a regulatory tool.[6] One of the most important risks for bond market participants is a potential default in the payment of principal and interest on fixed-income securities. It is important that regulators have adequate criteria for recognition of a credit rating agency. In this regard, the Basle Committee on Banking Supervision in its June 1999 consultative paper on a New Capital Adequacy Framework suggested that regulatory authorities responsible for supervising external credit rating institutions (i.e. credit rating agencies), evaluate such institutions taking into account objective criteria, including:

(a) objectivity,
(b) transparency,
(c) credibility,
(d) international access,
(e) adequacy of resources, and
(f) recognition by a national regulatory supervisory authority using criteria (a) through (e).

Element 14: Sound criteria should be established for external credit assessment institutions used in the administration of prudential and other regulatory standards.

42. Stock exchanges, dealers associations, clearing organisations and others perform self-regulatory functions. Different approaches are found in different countries. For SROs to be effective, the government regulatory authority must have a clear legal mandate to exercise oversight to ensure that the front-line regulator (the SRO) performs its duties in a competent, fair and transparent manner. SROs should also be encouraged to implement strong codes of conduct for their members.

43. In general, the key elements of effective self-regulation would include:

(a) the capacity to enforce compliance with applicable laws and regulations and SRO rules;
(b) a governing structure that reflects the public interest and provides fair representation of the SRO membership;
(c) rules designed to protect investors and facilitate the efficient execution of transactions;
(d) rules that do not impose unnecessary burdens on competition;

[6] Further discussion on ratings-based regulation can be found in Chapter Five of this Compendium.

(e) a fee structure that is reasonable and allocated equitably among members, issuers, and other users of SRO facilities;
(f) the capacity to conduct enforcement and implement disciplinary procedures that are fair;
(g) the ability to impose sanctions on members for rules violations;
(h) the capacity to train market professionals and educate investors; and
(i) a clear legal mandate for the government regulator to ensure that the SRO is properly meeting its obligations to investors, issuers, and members.

Element 15: There must be a clear legal mandate for the government or the regulatory authority to exercise appropriate and adequate oversight in order to ensure that self-regulatory organisations are performing their duties in a fair and transparent manner. Good governance of self-regulatory organisations, for example, balance of interest between members and non-members, should also be encouraged to instil confidence in their regulatory and disciplinary functions.

Chapter Three

Market Infrastructure

44. Market infrastructure broadly covers the systems, including the institutional arrangements, that are necessary for the smooth functioning of a debt market. It includes the trade execution system and the systems used in clearing, making payments and settling the securities trades. Some of these areas, especially payments systems, have been the subject of extensive analysis by the BIS, culminating in the publication of a set of core principles by which individual systems can be assessed.[7] These principles are not reproduced in detail here, though the practices discussed below draw heavily upon the material in these publications. Specific features of the types of trade-execution systems are covered in more detail in Chapter Four.

Clarity of Rules and Procedures

45. There should be clear and unambiguous rules and procedures that govern all major aspects of each system's operations. Both the system operator and the participants must clearly understand their respective roles within the system, with well-defined procedures specifying where the responsibility for action rests. Rules that are clear and unambiguous allow participants to undertake transactions with confidence when the system is operating smoothly, and, more importantly, allow them to form clear expectations about the operation of the system in times of stress. Events of default are amongst the most stressful occurrences and ensuring that default procedures are transparent provide the wherewithal for the effective operation of critical market mechanisms.

46. The rules and procedures should give participants a clear understanding of the system's impact on the financial risks that they incur through participation in it. They should clearly define the rights and obligations that participants acquire through participation and they should specify where the responsibility lies for mitigating or managing financial risks. The system operator should provide sufficient information to enable participants and institutions wishing to participate to understand and assess the impact of these obligations on risks they bear. For instance, it may be the responsibility of participants to manage their throughput of payments

[7] Recent publications by the BIS include *the Report of the Task Force on Payment System Principles and Practices* (to be available), the *Disclosure Framework for Securities Settlement Systems* (February 1997) and the *Delivery versus Payment in Securities Settlement Systems* (September 1992).

and their exposures and the responsibility of the system operator to provide them with relevant information on a timely basis.

47. The system's rules and procedures should be set out clearly in a written form available to the public. This ensures that participants or potential participants have a clear understanding of their obligations and minimises any potential misunderstanding or conflicting interpretations of the applicable rules. Access to the systems should also be fair and open and in accordance with objective criteria as set out in the rules.

Element 16: There should be clear and unambiguous rules and procedures that govern all aspects of the operations of a market infrastructure system. These rules should be made freely available to all interested parties with fair and open access to a system based on objective criteria.

Legal Enforceability

48. The rules and procedures should be drawn up so that they are enforceable and that their consequences are predictable. A system which is not legally robust could endanger its participants by giving them a false sense of security, for example, by leading them to underestimate their exposures. A well-founded legal basis is achievable only if the relevant legal environment permits such enforceability and predictability of the rules.

49. There are some specific aspects of payments systems which need special attention in determining whether the legal basis is well founded. These include the legal enforceability of any provisions relating to:

(a) the irrevocability of payments;
(b) finality of settlement;
(c) taking of securities as collateral for providing credit;
(d) the netting of obligations between participants; and
(e) the allocation of liabilities among participants, e.g. as part of a loss-sharing arrangement.

50. For example, intermediaries may simply agree to net payments obligations in order to reduce their liquidity requirements. While such a system may function smoothly in normal circumstances, problems are likely to occur if an institution is unable to meet its obligations (either because it is insolvent or it is suffering some temporary liquidity shortfall). Without adequate legal backing for netting, participants may seek to unwind transactions that have already been undertaken, choosing to honour

only those transactions that are profitable whilst ignoring transactions that are not in their favour. This selective honouring of transactions is likely to put all system participants under great pressure, potentially creating systemic problems. In contrast, a netting system established under legally enforceable statutes ensures that such unwinding of transactions cannot occur. Liquidity pressures on those institutions remaining in the system will still occur, but with adequate loss sharing arrangements in place, the system will be capable of enhancing timely completion of the transactions.

51. In addition, some aspects of a system may be subject to the law of more than one jurisdiction. The system, for example, may include foreign participants, custodians or settlement banks or could involve issues of securities in foreign markets.

Element 17: The legal enforceability of the system's rules and procedures in all relevant jurisdictions should be established.

Effective regulation

52. While markets tend to promote efficiency, they are not always adequate to ensure the overall systemic safety and stability. An effective regulatory regime should be established, with, where appropriate, one or more institutions explicitly identified to ensure sound risk management procedures are adopted. This oversight function may vary from economy to economy in both scope and procedure. Some economies have a statute-based system of oversight with specific tasks, responsibilities and powers assigned to the central bank and/or to other agencies. Other regimes are based on custom and practice and rely on non-statutory approaches. Each approach can work in its own setting. What is important is that the regulatory environment meets current needs effectively and is capable of accommodating foreseeable changes in these needs.

Element 18: An effective regulatory regime should be established with one or more institutions as appropriate, explicitly identified to ensure sound risk management and efficient operation of the systems.

Management of Risks

Principal risk

53. The largest financial risk faced by market participants occurs during the process of settlement, that is, the process through which the transaction is completed by the final transfer of securities from the seller to the buyer and the final transfer of funds from the buyer to the seller. A

mechanism must exist that ensures that delivery of securities occurs only if payment occurs. Without such a mechanism, market participants are exposed to principal risk; this is the risk that the seller of the security could deliver the security but not receive payment, or the buyer of the security could make the payment but not receive delivery of the security. Because the full value of the security being transferred is at risk, a securities system that does not eliminate principal risk can entail very large losses to a counterparty and may even create systemic problems. As a consequence, it is critical for a securities system to create the strongest possible link between delivery and payment.

Delivery-versus-payment

54. A delivery-versus-payment (DVP) system ensures that delivery of securities occurs, if and only if, the cash payment occurs. There are a number ways to achieving DVP in the securities settlement system. An example is some version of real-time gross settlement (RTGS) which is being increasingly adopted by many economies. Such a system settles transfer instructions for both securities and funds on a trade-by-trade (gross) basis with final transfer of securities from the seller to the buyer occurring at the same time as final transfer of any inter-bank obligations arising from a securities settlement. In this case, all parts of the securities settlement are final, with no further transfers of securities, cash or interbank settlement funds being required to give effect to the securities settlement. Because settling all parts of the transaction in real time puts a heavy burden on the liquidity of a system, however, some versions of RTGS systems may use netting to reduce this heavy call on liquidity. Securities transfers may be settled on a gross basis throughout the day, for instance, but the interbank obligations that the securities transfers give rise to are settled on a net basis at the end of the processing cycle. In this case, the system operator may provide a commitment that the buyer's bank will make payment to the seller's bank at the end of the processing cycle.

55. Analysis of the risks in securities settlement systems must not only determine whether DVP is achieved, but must also assess the degree of protection provided against liquidity risk. This is the risk that a counterparty will not settle an obligation for full value when it is due, but at some later time. In the case of a system providing final settlement at the end of the day, for instance, the inability of a participant to settle may upset the funding plans of other participants and expose them to liquidity risk unless appropriate contingent facilities are in place. In some systems the completion of settlement may be guaranteed, either by the system operator (which may be a central bank or a private entity) or by another third party (such as a group of commercial banks). In systems that provide such a guarantee, a variety of risk controls are imposed by the guarantor to protect it from losses, and, in cases where the guarantor's solvency is open to

question, to make the guarantee credible to participants. The effectiveness of such risk controls is critical - should the controls prove inadequate and the guarantor's financial condition become impaired, serious systemic problems may result.

Element 19: The risk management procedures should address the various categories of risks, including principal and liquidity risks. The introduction of delivery-versus-payment procedures substantially addresses the principal risk. Systems should ensure that suitable contingency arrangements are in place in the event that a counterparty is unable to settle an obligation when it becomes due.

Settling in central bank funds

56. In addition to the risk of counterparty failure, participants in securities settlement systems may face the risk of a settlement bank failure, that is, the failure of the entity that holds the funds accounts used to make payments for securities. This risk can be eliminated by the use of central bank accounts for undertaking the funds transfers.

Element 20: Assets used for final settlement should preferably not present the holder with credit risk, and where possible should take the form of a claim on the central bank.

Shortening the settlement lag

57. Counterparties to securities trades are also exposed to replacement cost risk. This represents the cost of replacing an outstanding transaction in the event that the counterparty will fail on the settlement date. Because future securities prices movements are uncertain when the trade is initiated, both counterparties face replacement cost risk. The size of this risk depends on the price volatility of the security and the interval between trade and settlement. Replacement cost risks can be reduced by marking-to-market unsettled trades and requiring the counterparty with an unrealised loss to transfer funds or collateral equal to the value of the loss to the other counterparty, the clearing system or the settlement system. A simpler alternative is to shorten the interval between trade and settlement. A common benchmark is to ensure that settlement lags are kept to T+3 days or shorter.

Element 21: In order to reduce replacement cost risks, it is preferable for the settlement of trades to take place as soon as possible after the trade has been confirmed. A common benchmark is to ensure that settlement lags are kept to T+3 days or shorter.

Effectiveness of risk controls

58. A key factor influencing the effectiveness of risk controls is the promptness with which relevant information is available. A payments system that operates in real time, for example, should provide participants with real-time information on their settlement balances, and where applicable, their positions against risk management limits. A system that does not operate in real time should provide relevant information as frequently and as promptly as necessary for good decision-making.

Element 22: For effective risk control, systems need to provide relevant information to participants on a timely basis.

Suitable Contingency Arrangements

59. The breakdown of a critical operational component of a securities system can create serious liquidity difficulties, and by delaying settlement, can increase replacement cost and credit exposures. The rules of the system should set standards for the reliability of individual participants' operational performance as this affects the operations of the system itself. In addition, the systems should ensure that all hardware, software and communications facilities that support their operations have a high degree of reliability and integrity. Contingency plans should be established for the potential failure of each critical component, including the identification of back-up facilities capable of completing the settlement process on the settlement day and performing the accounting and processing work necessary to prepare for the next settlement day.

60. Plans should be developed to meet a wide range of plausible contingencies. The plans should cover not only the failure of technical components within the system, but also possible failure of external connections and systems, such as the telecommunications infrastructure. They should also cover contingencies that do not stem from technical failure, such as industrial disputes or natural disasters.

Element 23: There should be suitable contingency arrangements to handle system problems caused by internal operations or external service providers.

Chapter Four

Liquidity[8]

61. A liquid market can be broadly defined as one where participants can rapidly execute large-volume transactions with a small impact on prices. Liquid markets tend to be characterised by several standardised bond lines with large volumes on issue relative to the average market transaction size.

62. Bond market liquidity is important because it affects the operation of monetary policy and contributes to financial stability. Outright purchases and repos of securities are important instruments of monetary policy. If market liquidity is not sufficient, central banks might not be able to provide or absorb the necessary amount of funds smoothly through their open market operations. This could produce unintended effects such as excessive price volatility.

63. In addition, bond market liquidity facilitates instruments of financial intermediation, which encourage efficient market pricing, as well as economically efficient borrowing and investment decisions. A liquid market for raising cost effective debt financing on demand provides valuable financial flexibility. The value of developed debt financing infrastructure is embodied in its liquid issues, the composition of the yield curve, the range of funding instruments and the range of investors. It provides the issuer with a ready capacity for prudent management of its funding risk (i.e. the risk of being able to raise funds as required without penalty). While an issuer could if necessary still raise funding without such infrastructure, a large premium would have to be paid over a long period of time, until the infrastructure was established.

64. Lack of bond issuance is a key reason why many domestic bond markets are illiquid. Many governments have little need to issue bonds because they have generally run budget surpluses. In addition, many companies have preferred other funding sources over bond issuance. Where issuance activity is low, features that could augment bond market liquidity, such as market makers and derivatives markets, tend not to develop. A weak local institutional investor base has also been an impediment to the development of liquid domestic bond markets.

[8] In the course of preparing this chapter, we have drawn on materials from various sources, in particular the work done by the Study Group on Market Liquidity under the auspices of the Committee on the Global Financial System, chaired by the Bank of Japan.

65. This chapter addresses the key elements that would assist in enhancing the liquidity of domestic bond markets. The elements are benchmark yield curves, transparency, market structure and conventions, market access and derivatives markets. It is also recognised that there is some circularity in the development of liquid bond markets in that a critical mass of issuance is required to generate liquidity. However, liquid markets are required for issuance of significant volumes of bonds.

Benchmark Yield Curve

66. A key feature of liquid bond markets is a benchmark yield curve that is comprised of the yields on several standardised bond issues. Standardised bond issues that are simply structured (e.g. have no redemption or call features) are more easily understood by market participants and can be more readily priced. Therefore, they are more likely to be successfully traded.

67. It is important to note that where funding is not required, bond issuance would imply asset accumulation and management. The tension that arises when governments have no current or prospective funding need but wish to develop the domestic bond market was noted in Chapter One.

68. Accurate and reliable benchmark yield curves promote financial efficiency and use of instruments of financial intermediation. Market participants are more able to appropriately price and hedge other traded financial assets. Certainty about reliable pricing for bonds in the domestic market encourages investors and intermediaries to participate, making it easier for issuers to raise funds domestically.

Element 24: Accurate and reliable benchmark yield curves enable market participants to price the credit and liquidity of domestic debt issues appropriately.

69. Ideally, each benchmark maturity should have a volume of bonds on issue that is sufficiently large relative to the market's total size and the market's average transaction size. By reopening maturities after initial issuance, issuers can create larger benchmark lines and therefore have less market fragmentation without paying risk premia to dealers subscribing to large amounts of securities at one time. Regular issuance into benchmark bond maturities along the entire yield curve also assists the price discovery process, which facilitates the pricing of bond market transactions.

70. Re-opening benchmark lines, however, does increase the likelihood that issuance will be into a benchmark with an 'out of market' coupon, which may be less desirable for investors. In addition, issuance

into a benchmark line that already has a large volume on issue may not be successful because there may not be sufficient additional investor demand for that line.

71. There are ways in which the issuer can act in the secondary market to improve the liquidity of the benchmark yield curve. The issuer may facilitate switches by dealers who are seeking to trade in more liquid issues, reducing problems relating to the fragmentation of issues. In addition, the issuer might intervene to purchase maturing bonds before the maturing date and sell new issues, reducing the risk of disruption of refunding operations.

72. Liquidity in bond markets is enhanced when there are liquid benchmark bond lines at key points along the yield curve, for example, 1 year, 2 years, 5 years, and 10 years, although the precise maturities that are important may vary between individual markets. This characteristic facilitates the pricing and hedging of bond market transactions, by catering for investors' varied time horizons.

73. Apart from being liquid, the benchmark bond lines at key points along the yield curve would also need to be appropriately spaced. If the gap between benchmark bond lines is too great, it becomes difficult to accurately price instruments with a maturity somewhere between the benchmark bonds.

74. Once established, a yield curve's length should be maintained by issuance of a new long dated line as appropriate. For example, if the length of the yield curve is around 10 years, a new 10-11 year maturity should be issued in time for its liquidity to be built up before the term to maturity of the existing 10 year benchmark shortens too much.

Element 25: A number of measures could help to build up an accurate and reliable benchmark yield curve. These include regular issuance of bonds at appropriately spaced benchmark maturities along the entire yield curve in order to build up liquidity, large volume issuance or suitable re-opening of bond issues to maintain liquidity, and issuance of new bonds of long maturity to maintain the length of the yield curve.

Transparency

75. The availability of information on issuer decisions and actions and on market conditions enables better investment decisions to be made and assists the formulation of government policies. This encourages market participation and therefore liquidity directly, because investors are able to

confidently compare information across markets and time. The transparency of relevant public policy also promotes market development.

Primary bond market

76. The interest of intermediaries and investors in a market, and hence market liquidity, is likely to be enhanced when the general strategy of an issuer is known and understood and where any changes in that strategy are communicated in a timely fashion. This may include issuers providing an issuance schedule, an indicative issuance programme, target issuance volumes for bond maturities and intervals between benchmark bond lines.

77. If issuance intentions are pre-announced, market participants are able to formulate strategies to construct optimal portfolios, which is likely to increase interest in a market. Pre-announcement also facilitates when-if-issued trading[9] which may enhance liquidity by reducing bidders' inventory risk at the auction and enabling security prices to be tested in the market.

78. However, pre-announcing all issuance details well in advance of issuance may inhibit issuers' flexibility to respond to changing market conditions and corresponding changes in the preferences of intermediaries and investors. For example, if the coupon of bonds is announced well in advance of issuance, changes in market interest rates may result in the bonds having coupon rates considerably 'out of market' which may be less desirable to investors. In particular, issuance strategies for less liquid markets may need to be more flexible to ensure market conditions are conducive to receiving the new issuance.

Secondary bond market

79. The relationship between liquidity and transparency in the secondary market is complex. On the one hand, if the market is too opaque and one cannot accurately see the current market value of securities, investors may exit the market because it would be difficult to accurately value their portfolio. However, if the market is too transparent and the information on order flows is immediately disseminated, some large investors may be deterred from participating in the market for fear of revealing private information. Therefore, it is desirable to protect anonymity of market participants when disclosing transaction information.

80. There may be a role for regulatory monitoring of compliance with transparency standards. Even if severe market corrections occur only rarely, they serve to indicate that at least in the short term markets do not

[9] When-if-issued trading refers to a transaction made conditionally because a security, although authorised, has not yet been issued.

always take account of all relevant information that may or may not be available. In the longer term, markets can enforce transparency through rewarding those participants who comply with recognised and accepted standards and penalising those who do not.

Element 26: Measures should be taken to enhance transparency in the primary and secondary markets to promote market participation, and hence market liquidity. For example, disclosure of information about the general issuance strategy could help market participants to formulate their investment strategies. Also, trade information in the secondary market should be promptly disclosed to the public, with due attention to ensuring anonymity of market participants.

Market Structure and Conventions

81. There are several market structures and many more conventions that can be adopted. For example, trading infrastructure can comprise over-the-counter (OTC) and/or exchange-based trading. OTC trading can comprise either a primary dealers structure or a market making community. It is important that the structures and conventions that best suits the circumstances of the individual market evolve and that they remain open to change as the market develops. In particular, appropriate market structures and conventions can minimise transaction costs. This is important because these costs reduce the return from trading, which in turn reduces the trading volume and therefore potentially the efficiency of the market.

82. Transaction costs arise partly because participants are fragmented across time and space. In a relatively thin market, one way to cope with serious fragmentation is to restrict trading to certain periods. This allows orders to accumulate and be matched more easily. It also spreads costs by creating economies of scale. Where orders are more frequent and more easily matched, continuous trading may be possible. This allows more flexible trading strategies to be adopted and generates more frequent updates to market conditions, which increases the flow of information.

83. Frequency of issuance also impacts on market liquidity. Frequent issuance can help to reduce the potential disruption to the secondary market as well as the level of execution risk borne by issuers. Less frequent issuance, however, may encourage dealers to be more active in promoting new issues and maintaining secondary market liquidity.

84. Encouraging the emergence of competing dealers by granting certain privileges (such as the right to bid for stock in the primary market)

to a group of qualified entities may also help the liquidity of a market although there should be regular evaluation of the respective costs and benefits of this practice. The existence of a recognised group of intermediaries can increase confidence in the market, which increases the order flow and consequently the dealers become more profitable and are able to support more continuous trading. Primary issuance can be significantly assisted by dealers providing underwriting support.

85. Standardised trading and settlement processes which are efficient and reliable should enhance liquidity by mitigating market fragmentation, thus reducing transactions costs and increasing effective supply without having negative effects on market participant heterogeneity. Standardisation of practices over the universe of fixed-income securities may see the manifestation of demands for arbitrage and hedging transactions, thus improving market liquidity.

86. Tick size, the minimum increment in quoted prices/yield, may affect the level of market liquidity. Too large a tick size is harmful to market liquidity because matching supply and demand is more difficult. Too small a tick size may increase operational costs.

87. Transaction taxes are an explicit cost of trading and normally decrease market liquidity. Authorities should count the liquidity impairing effects of these taxes against any revenue they might raise. Withholding taxes on the interest of marketable assets tend to increase transaction costs such as the need to calculate and adjust for accrued interest and may therefore deter investors.

Element 27: Transaction costs should be kept low to enhance trading activities. This can be achieved through maintaining a competitive dealer structure for trading activities and standardising trading conventions and settlement processes. The liquidity impairing effects of taxation should be minimised.

Market Access

88. A market with diverse participants, with a variety of transaction needs and investment horizons, willing and able to buy and trade, is also important in enhancing market liquidity. For example, liquidity would be enhanced by the lifting of regulations which prevent particular investors (e.g. non-residents) from participating in a market. In this regard, wider financial deregulation to allow greater participation in the financial sector may be important for increasing liquidity in bond markets.

89. A potentially important impediment to market access is lack of information about the structure and functioning of the market. Publication of relevant information generally aids participation and hence liquidity.

Element 28: Market access should be available to diverse participants. Heterogeneity of market participants with a variety of transaction needs and investment horizons would promote liquidity.

Derivatives Markets

90. The functioning of derivatives markets can both enhance, and be enhanced, by a liquid bond market. Accurate and reliable benchmark yield curves are capable of underpinning bond futures and other derivatives markets, for example, interest rate swap markets. These markets provide additional hedging options for market participants. All other things being equal, liquidity in bond markets will be greater if interest rate risk management is easier for market participants.

91. Repo markets are also supported by accurate and reliable benchmark yield curves. These markets enable intermediaries to finance long positions and to create short positions, allowing them to respond quickly to customer needs. Facilitating the taking of short positions improves the supply of tradable securities and makes bond markets more liquid.

92. However, the development of repo and futures markets may also provide some participants with opportunities for 'squeezing' the cash market. This possibility requires the monitoring of cash, repo and futures markets and entering the markets as necessary, such as through a security lending facility to temporarily alleviate shortages of stock. Measures may include limiting the short selling of financial instruments through increasing margin requirements and preventing short selling below the best offer price.

Element 29: Consideration could be given by the relevant authorities to developing derivatives markets and facilities such as futures markets, swaps markets, repo markets and securities lending facilities as appropriate to facilitate different investors in constructing their investment portfolios and risk management strategies, hence increasing liquidity and trading activities.

Chapter Five

Risk Management

Risk Management from the Issuer's Perspective

93. In addition to having proper government policies, regulatory framework, market infrastructure and measures to enhance liquidity as discussed in the previous chapters, the fifth and equally important element conducive to domestic bond market development is effective risk management. This is particularly so for governments as key issuers in the bond market. As the Asian financial turmoil has demonstrated clearly, inadequate risk management by governments and major private sector issuers in respect of their bond programmes could make them vulnerable to shocks that disrupt the functioning of financial markets at times of distress. More specifically, an over-dependence on volatile short-term foreign capital flows to finance long-term projects can result in both currency mismatch and maturity mismatch. Under such circumstances, once there is a general loss of confidence in the domestic currency or a burst of asset price bubbles, the short-term foreign capital will be repatriated rapidly. Consequently, there would be added pressure on both currency value and asset prices.

94. As a first step, there should be effective information system to facilitate risk management by bond issuers who should accurately assess the risks that they face. Risk management can be achieved through conducting a risk audit of various categories of risk exposures, e.g.

(a) risks related to foreign borrowing, including global interest rate risk, and country-specific shifts in market sentiment (liquidity risk);
(b) global business cycle shocks;
(c) financial market dislocations; and
(d) in the case of governments, risks originating from guarantees for regional or local governments or public sector companies.

95. Major global financial institutions have a great deal of expertise in evaluating such risks, since these firms monitor these risks as part of their own risk management programmes. Bond issuers could draw on such expertise to identify and quantify the risks that they face.

Element 30: Governments as well as private issuers should conduct a risk audit to identify the exposure of its bond programme to various risk categories such as liquidity, maturity and currency mismatch

risks, as well as risks arising from explicit and implicit government guarantees.

96. After assessing the risks involved, it is important for bond issuers to reduce their vulnerability to market shocks by properly managing the risks identified. Using public debt as an example, the general tendency to rely on short-term funds can be explained partly by the fact that the goal of public debt management has often been viewed narrowly as getting the lowest possible cost of funds. While keeping today's interest payments low definitely helps today's budgetary situation, an over-reliance on short-term funds can increase the risk of financial crisis in the future through the need for frequent roll-over of short-term debts. An effective sovereign debt management programme should therefore also take into account the ability to finance the required amount at a time when it is needed while being consistent with the macroeconomic programme.

97. Some simple rules for managing the risks inherent in sovereign debt programmes can be derived from a range of risk management frameworks. Governments could usefully follow three basic tenets. First, the average maturity of their external liabilities should exceed a certain medium-term threshold (such as three years). Secondly, liabilities should not be concentrated in foreign currency. Thirdly, governments should hold sufficient liquid reserves to ensure that they are always able to cope without new foreign borrowings over a short horizon (such as for up to one year).

98. These simple rules can be defined through the use of more complete sovereign debt risk management frameworks, such as the asset and liability management ("ALM") approach. The ALM framework places the sovereign debt management on the sovereign balance sheet, and provides a tool to analyse the risk of current debt portfolio, establish future funding policies, repayment policy etc. The risks are managed by matching the assets and liabilities in terms of the maturity structure.

99. The approach to sovereign risk management described above is a generally static arrangement. Over the longer horizon, it would be more important for governments to deploy a dynamic and more sophisticated ALM approach to manage risks. This would require governments to move towards a system that takes into account the probability distribution of foreseeable risks. Such techniques and stress testing are useful for governments to adjust their risk profile by taking into account losses that would be incurred in possible, though less probable, future states of the world. One could assess the "liquidity-at-risk" by calculating a country's liquidity position under a range of possible outcomes with different probabilities for relevant financial variables (e.g. exchange rates,

commodity prices, credit spreads etc.). In addition, governments should hold sufficient liquid reserves to ensure that they could avoid new borrowing, for example, for one year within 95% confidence limits.

100. It may be noted that much of the above discussions would also apply, mutatis mutandis, to private sector issuers.

Element 31: Governments and private issuers should maintain a debt profile that provides protection against temporary market disruption. Simple rules relating to the maturity and currency structure of debt, and to liquid reserves, can be employed. At a later stage of development, the Asset and Liability Management approach can be used as a conceptual framework for dynamic as well as static risk management.

101. In the process of managing the risks they face, bond issuers should investigate how, and at what price, they could reduce or hedge those risks through financial contracting with other market participants. With such financial contracting, bond issuers can effectively reduce their risk exposure by transferring risks to other private market intermediaries. This can be thought of as purchasing insurance against adverse market conditions. To shift risk to the financial markets would of course involve a price to be paid by the "insured" party. Thus, the amount of risk reduction must be balanced against the costs, which could be substantial. Furthermore, the use of financial contracting for risk sharing should be supported by the capability to identify and monitor such activities, including the potential risks arising therefrom. Examples of financial contracting for such purposes are –

(a) to issue bonds the repayment of which is linked to commodity prices;
(b) to arrange credit facilities that allow the issuer to borrow at a predetermined interest rate or interest rate spread in times of crisis; and
(c) to purchase options in order to hedge risks as part of a sophisticated risk management arrangement.

Element 32: Government and private issuers may try to conduct risk-sharing through financial contracting to hedge against the potential costs arising from adverse market conditions. They could consider using derivatives securities for this purpose but they should fully understand the risks involved and implement appropriate risk management systems.

Risk Management from the Investor's Perspective

102. The major risks related to fixed-income investments are:

(a) credit risk (counterparty risk, borrower risk and sovereign risk);
(b) market risk (interest rate risk, price risk, currency risk and correlation risk);
(c) liquidity risk, operational risk, fiduciary risk, legal risk, concentration risk etc.

103. For an investor to effectively monitor, measure, and control the above risks, a core set of sound risk management practices is a necessity and such practices should be promoted at least among the major bond investors, public or private. While the size, scope, and complexity of an investor's fixed-income holdings and risk management programmes may differ, there are six key components that are essential to all sound risk management programmes.

104. The first component is that the Board and senior management of institutions that invest in bonds must provide an effective oversight of the fixed-income investment portfolio. Effective Board and senior management oversight is indispensable for a sound risk management programme. Therefore, the Board and senior management must understand and exercise respective authorities to manage and control the risks related to its securities portfolio. Communication is a strong deterrent to covering up losses and thus the Board should always be kept fully updated by the senior management.

105. The second component is that the institution should have an effective mechanism and delegation of responsibility to different units to implement the investment and risk management policies. Investment policies and guidelines provide the basic framework for managing the securities portfolio. Policies should delineate the responsibilities of the Board and senior management, pinpoint key objectives, constraints, guidelines for acquiring and ongoing monitoring of portfolios, and reporting requirements. In terms of division of responsibility, while the senior management would be responsible for operational management, the Board should be responsible for approving all relevant investment and risk management policies. Policy guidelines should also assign the responsibilities of the front office (primarily responsible for dealing functions), the back office (for settlement and accounting functions) and the middle office (with independent risk oversight and audit, and performance measurement and analysis functions). In addition, the policy guidelines should also outline the stress testing framework and frequency, accounting guidelines, and a mechanism to review all new fixed-income products to be

purchased[10]. Policies should clearly articulate an institution's risk appetite by setting benchmark with preferred neutral positions for foreign currencies and maturity profile, and limits on exposure to credit, market, settlement and liquidity risks etc.

106. The third component is that institutions should develop robust risk measurement, identification and reporting systems. In order to obtain the institution's overall risk profile, an institution's system for measuring credit, market and liquidity risks of its fixed-income portfolio should be aggregated across securities positions and integrated with similar exposures arising from other business activities. Risk measurement standards should be established for pre- and post-purchase analysis. Timely and accurate risk reporting is another essential tool to manage domestic bond portfolios. Management reports should summarise all investment activities and have the capability to convey information on the risks, returns, and overall performance of an institution's fixed-income portfolio.

107. The fourth component is that institutions should periodically conduct stress test on their fixed-income portfolios and consider the results when establishing risk limits. Institutions should conduct stress testing[11], which involves revaluing the entire portfolio under extreme conditions. Institutions should also seek to identify the combination of credit and market events that could produce substantial losses or liquidity problems. Stress testing should be conducted independently of the portfolio management function.

108. For fixed-income products, stress testing should identify an institution's sensitivity to interest rates, prepayment risk, changes in credit spreads, yield curve shifts and other relevant factors. Stress testing should not be limited to quantitative methods, because they are not able to capture qualitative factors such as market liquidity and changes in market sentiment, etc. Successful stress testing methodologies address these issues with non-quantitative techniques, such as scenario analysis.

109. The fifth component is that institutions should provide for a strong internal control and audit system, including the establishment of an independent review of the fixed-income portfolio. Institutions should staff

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[10] Often, new products have unusual risk profiles that may not be easily integrated into an institution's existing risk measurement system. Thus, institutions must identify the risks of new products and establish appropriate procedures for monitoring, measuring and controlling the risks involved.

[11] Value at risk (VAR) models should not be used to the exclusion of stress testing. VAR is generally defined as the maximum loss a portfolio is expected to incur over a specified time period, with a specified probability. It does not calculate potential losses outside of the probability threshold. Thus, VAR deals with the worst case scenarios under normal market conditions only.

the operations area with skilled personnel and establish a documentation/record keeping system that is commensurate with the scope of its investment activities. A rigorous internal control and audit framework contains three fundamental parts:

(a) maintaining an appropriate segregation of duties;
(b) conducting independent reviews of the fixed-income management function; and
(c) enforcing official lines of authority.

110. Individuals responsible for risk measurement, monitoring and control should be independent of the risk-taking units. An independent and vigilant risk oversight department[12], comparing the middle office responsible for risk management and compliance suggested in paragraph 105, with direct reporting line to the senior management or the Board, is another key component of a strong risk management programme.

111. The sixth and the final component is that institutions should periodically review and update their risk management programmes. Many institutions have established the best risk management systems available at the time and designed new reports, but have then failed to realise that the systems are static, while the markets and their portfolios are not. One of the challenges facing financial institutions is that prudent best practices change with time and financial institutions need to upgrade their systems and risk management programmes accordingly. The frequency of the reviews should reflect the nature of an institution's bond holdings and the pace of market innovations in measuring and managing risk. Reviews by external auditors or other qualified outside parties can often supplement internal evaluations which can usually be done by the middle office or a similar oversight department.

Element 33: Bond investors should formulate sound investment and risk management policies, with clear delineation and segregation of duties and responsibilities between risk-taking and risk-monitoring, and robust internal control systems.

Credible Risk Assessments

112. When the capacity of investors to analyse credit is not well developed, governments are often tempted to set a minimum rating for

[12] For smaller institutions, the independent review function can be out-sourced to external auditors.

issuers. This, it is thought, will prevent the worst of the borrowers from coming to the market. Such a policy has several drawbacks. First, it can simply divert the issuance into an unregulated channel. For instance, issuers unable to sell bonds may issue commercial paper, thereby actually raising the financial risk profile of the borrower by shortening the maturity profile of its debt. Secondly, such a policy creates a strong demand for easy graders. Finally, such a policy, by vesting in the rating agencies the power to deny access to the marketplace, may raise the potential costs of any analytic errors in the rating process.

Element 34: Government should avoid setting minimum credit rating requirements for bond issuers in order not to divert issuance into unregulated channels that may ultimately raise the overall financial risk profile.

113. Ratings-based regulations have proliferated because they allow sensible distinctions to be made while leaving public authorities at a distance from the responsibility for making those distinctions. In some cases, governments could well find it useful to specify minimum ratings for public policy reasons, e.g. for the purpose of repo transactions or regulating access to discount window facilities. In other cases, however, ill-conceived or badly executed policies based on ratings can induce "competition in laxity", leading to the development of rating agencies specialising in high ratings. In particular, regulations that treat all ratings equally in the face of evidence of systematic differences are problematic. More generally, regulations can distort the ratings business from one ultimately grounded in credibility with investors to one driven by the convenience of issuers and regulatory arbitrage. Although a market process may ultimately ensure that bad raters do not survive, such a process works over business and asset cycles and much damage could be done in the meantime. There may be a tragedy of the commons: each regulator may feel that his use of ratings is the best available choice, but the accumulation of regulatory uses may spoil the rating business. Governments should therefore avoid an over-reliance on credit rating agency assessments. In particular, governments should avoid seeking minimum credit rating requirements for the investment portfolios held by private sector investors.

Element 35: Government should avoid an over-reliance on credit rating agency assessments and, when considering any ratings-based regulations, should carefully evaluate the potential implication for the financial system and financial market participants, including credit rating agencies.

114. Credit rating agencies owned by issuers of securities have an inherent credibility problem. Whether the ownership is vested in governments, corporations or banks, the ability of the rating agency to treat its owners or their competitors fairly will inevitably be under question. Similarly, a rating agency staffed by bankers on secondment will not be seen as credible in assigning ratings to their former and future employers. Ratings reviewed by a committee of executives including those from the firms being rated will also suffer credibility in the marketplace. Thus, credit rating agencies should avoid conflict of interests in their ownership, staffing and decision-making processes.

115. Credit rating agencies recognise the value of consulting issuers in order to obtain their perspective and outlook, as well as to gain access to non-public information. The rating agencies should maintain the highest degree of objectivity in their rating assessments. Sharing drafts with the issuers actually serves the rating agency's own interest in quality control and prevents the disclosure of non-public information. In addition, to the extent that differences of opinion arise between rating agencies and the issuers concerned, access to the draft opinions will permit the issuers to formulate a public response and thereby contribute to an informed public assessment of the credibility and reliability of the ratings. It must be recognised, however, that the flow of events at times will preclude any prior discussion of rating changes. Rating agencies also need to prevent the abuse of any prior knowledge of rating changes, which can have value in the marketplace. Subject to these constraints, a high level of transparency should be maintained for the rating process.

116. While most major rating agencies publish unsolicited ratings, practice with respect to the identification of them as such varies. Some agencies believe that the users of ratings have the right to know that the rating is merely based on information in the public domain, while others resist the implication that the opinion expressed in the rating is somehow less well-founded or reliable than ratings issued after consultations with the issuers, which may include access to non-public data. Credit rating agencies should state their policies on unsolicited ratings so that users of a rating should be able to know the policy of any particular agency.

Element 36: Credit rating agencies should be encouraged to maintain and improve their credibility and reputation by avoiding conflict of interests in their ownership, staffing and decision-making processes; allowing issuers to comment on draft rating opinions when possible; maintaining the highest possible level of transparency and objectivity in the rating processes; and publicly disclosing their policies on unsolicited ratings.

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APEC Workshop on Development of Domestic Bond Markets
18 December 1998, Hong Kong

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Appendix A

Asia Pacific Economic Cooperation

Questionnaire Survey on Developing Domestic Bond Markets

Summary of Responses

APEC Collaborative Initiative on
Development of Domestic Bond Markets

Hong Kong Monetary Authority

10 December 1998

CONTENTS

I. INTRODUCTION

1. At the APEC Finance Ministers Meeting held on 23-24 May 1998 in Kananaskis, Canada, the Finance Ministers agreed to begin work on a new collaborative initiative on the development of domestic bond markets in the region. Hong Kong, China has agreed to co-ordinate this initiative.

2. A questionnaire (Annex 11) was sent to the 18 APEC member economies in August 1998 to review the state of domestic bond markets in APEC member economies, the potential for development and the areas of growth for domestic bond markets. It also surveys the need to enhance the financial infrastructure.

3. Sixteen returns were received from the APEC member economies (Papua New Guinea and the Philippines have not responded to the survey). In general, member economies have provided detailed information on their domestic bond markets and have given valuable opinions on the growth and development of the markets and measures to enhance the financial infrastructure. However, figures on bond holdings, and on the size of secondary markets were generally not available.

4. This report summarizes the responses from member economies. The major findings were discussed at the APEC Workshop on Development of Domestic Bond Markets held on 18 December 1998 in Hong Kong.

II. EXECUTIVE SUMMARY

5. This Report consists of five sections. Detailed responses to the survey from APEC member economies are listed in the annexes in Part IV of this Report.

6. The first section gives an overview on the sizes of bond markets and the types of bonds issued. According to the figures provided by member economies, the total bond market capitalization of APEC was about US$16.3 trillion as at end-1997. It was noted that almost all of the 16 APEC member economies' debt markets have experienced steady growth in the past three years. However, in US$ terms, the bond market capitalization of the crisis-hit economies had contracted in 1997 due to the sharp depreciation of their currencies against the US dollar.

7. The second section discusses market infrastructure issues. It was found that the secondary markets for most APEC bond markets are under-developed. Moreover, securities clearing and custody systems need to be enhanced. Some economies are still issuing bearer bonds. On the other hand, nine APEC economies have already implemented Real Time Gross Settlement Systems, and another three economies indicated that they would implement RTGS in 1999 and 2000.

8. The third section looks at supply and demand of Asian bonds. Currently, bonds are mostly issued by the public sector, mainly governments. However, it was observed that the dominance of the public sector as bond issuers had shifted to the private sector recently in Australia and Malaysia, as government bond issues decreased over the years. Only eight member economies have issued bonds denominated in foreign currencies, but the amounts of the issues are small relative to bonds denominated in local currencies.

9. The fourth section discusses the yield curves in member countries. Most member countries have benchmark yield curves. However, some curves are not reliable, as secondary trading is limited. Member countries are aware of the importance of benchmark yield curves in promoting market developments. Accordingly, they are considering issuing government bonds on a regular basis to ensure the reliability and the accuracy of the curve.

10. The fifth section discusses the regulatory framework and the legal system protecting bond investors. Most economies have some form of legislation to protect the investors in case of default of bond issuers.

III. FINDINGS AND RECOMMENDATIONS

Structure of Domestic Bond Market

Market Capitalization

11. APEC bond markets have grown slowly relative to equity markets. At the end of 1997, the[1] size of the APEC local currency bond markets was around US$16,308 billion[2], compared with $15,540 billion as at end-1995. The compound annual growth rate was 2.4%. However, if bond markets in the US and Japan were excluded, the growth rate of bond markets in the period would increase to 3.8% per year, from US$1,102 billion to US$1,188 billion. The slower growth in market capitalization could be partly attributed to the depreciation of most Asian currencies against the US dollar in 1997, given that market capitalization is measured in US dollars. In fact, market capitalization measured in domestic currencies had experienced a steady and higher growth in most Asian economies during the period.

12. In terms of market capitalization, the US domestic bond market was the largest in APEC. The outstanding amount was US$11,437 billion as at end-1997. Japan was the second largest (US$3,691 billion), Canada was the third largest (US$462 billion) and Australia was the fourth largest (US$207 billion).

13. It was noted that most of the ratios of market capitalization to GDP (which is an indicator of the stage of development of a market) of the APEC economies were below 60%. This indicates that bond markets in the region are generally under-developed and there is plenty of room for further improvement. In the developed APEC markets such as the US and Japan, the capitalization to GDP ratios were 141% and 95% respectively at end-1997. With a ratio of 89%, Malaysia's debt market is the most developed in Asia. In contrast, the ratios in China, Mexico and Thailand were low at around 12%.

Issuer and Investor Characteristics

14. About 70% of local currency bonds in APEC economies were issued by the public sector, and over 70% of the public sector bonds were issued by governments. This reflects the fact that bonds are issued mainly to finance budget deficits and infrastructure developments. The reason for the lower private sector bond issuance is that Asian corporations are usually assigned lower public credit ratings, which makes private sector bonds less attractive to international and local investors, and means a

[1] Papua New Guinea and the Philippines have not replied to the survey and they are not included in the total figure. Brunei Darussalam does not have a bond market.
[2] The market capitalization figures can be found in Annexes 1 and 2 of this report.

higher funding cost to corporations. It is therefore quite common that the private sector in Asia relies heavily on bank credit as the major source of financing. Economies where private sector bonds accounted for more than 50% of total bonds issued are Australia, Hong Kong and Malaysia. The bond market infrastructure in these economies is more developed, making the issuance of corporate bonds and bank CDs more efficient.

15. The foreign currency debt market is relatively smaller in size compared with local currency debt market. Only Canada, Chile, Japan, Korea, Malaysia, Mexico, Japan, Korea, Chinese Taipei, Thailand and Singapore had foreign currency debts. The largest foreign currency market is Canada, with a market capitalization of US$301 billion as at end-1997, followed by Chinese Taipei (US$42 billion).

16. The mix of local currency bondholders varies from market to market. In Australia, Japan, Korea, Mexico and the US, banks and financial institutions are the major holders. In Singapore and Malaysia, contractual savings institutions, such as the provident funds are the active buyers of bonds. There are two special cases: China and New Zealand, where individuals and foreigners are the major holders of bonds.

17. In general, foreign currency bonds markets are in a nascent stage in APEC economies. There are no meaningful statistics available on holders of foreign currency bonds. Only Chile and Korea provided some data, which indicated that banks are the major holders of bonds. The lack of development of the foreign currency bond markets might be due to the fact that there was a net inflow of foreign capital into Asia in the past years, and Asian economies did not need to borrow foreign currencies to finance their foreign currency liabilities. Also, because of the generally lower credit rating of Asian economies, foreign currency Asian bonds were not attractive to foreign institutional investors, and so the demand for foreign currency bonds has not been large.

Primary and Secondary Markets

18. The method of auction varies across countries. In Hong Kong, government bonds are issued in competitive auctions and so the issue prices are market determined. On the other hand, bonds in China are placed via an administrative allocation mechanism, so the yields are often below market.

19. Secondary markets provide liquidity to bondholders. Australia, Canada, Japan and Korea have relatively more active secondary markets as their market turnover are higher. Thailand has made good progress in promoting secondary trading through the bond dealers club. Turnover ratio (turnover/market capitalization) for Hong Kong dollar bills was also high at around 30%[3] in 1995.

Market Impediments

[3] *Asian Bond Markets*, Financial Times, 1997.

20. Comparing the turnover value to market capitalization, it was noticed that some Asian debt markets are rather illiquid. Inactive secondary markets are attributable to the following market impediments:

(a) *Lack of reliable benchmark yield curves*
Most yield curves are below 10 years. This has made pricing for corporate debt securities in the secondary markets difficult, especially for long-maturity bonds.

(b) *Lack of local institutional investors*
Contractual savings institutions tend to adopt a buy-and-hold strategy due to their long-term investment horizons. There are a small number of institutional investors who actively trade Asian debt.

(c) *Under-developed securities trading, clearing and settlement system*
In certain Asian countries, reliable and expeditious clearing and settlement systems are not available. Some bonds are still in bearer form, which makes settlement less efficient.

(d) *Lack of liquidity*
Asian bonds are often issued in small sizes. As investors of bonds are mostly adopting a buy and hold strategy, the supply of bonds in the secondary market is not sufficient. Due to low liquidity and inactive secondary market trading, the bid/offer spreads are often very wide, and this makes trading very costly.

(e) *Lack of committed market makers*
Committed market makers are important for active secondary trading. Due to the volatility of Asian debt relative to G7 bonds, financial institutions and securities houses are not very keen to make prices on debt securities.

(f) *Long settlement periods*
Settlement periods are often long and not specific. Hong Kong, Indonesia, Malaysia and Thailand have specific settlement periods. Securities in Singapore and the Philippines are, however, settled on mutual agreement basis.

(g) *Absence of bond lending programmes*
There is no repo market for Asian bonds or the markets are not active. This makes collateralized lending and short covering difficult.

21. As reflected in the survey, member economies think that the key impediments to bond market development are: lack of reliable benchmark yield curve; lack of local

institutional investors; under-developed securities trading, clearing and settlement systems; and lack of liquidity.

Recommendations

22. APEC member economies suggested the following steps to develop domestic bond markets:

(a) Governments or public bodies should issue longer-term maturity bonds to extend the benchmark yield curves, making the pricing of private sector bonds easier.

(b) Settlement systems should be enhanced. Settlement period should be standardized to reduce settlement risk and uncertainty. Payment systems should be strengthened to facilitate settlement of securities transactions.

(c) Mark-to-market system should be introduced to enhance risk management. This would attract more institutional investors.

(d) Governments should develop the repo market, such that investors can have more alternatives to finance their short-term capital needs.

(e) Governments should promote the development of bond futures markets to provide hedging tools for management of fixed-income portfolios.

(f) Exchanges and clearing houses should develop electronic and scripless custodian systems to reduce paperwork and improve efficiency of safekeeping of bonds. Transfer of titles should be clear and efficient. The use of computerized trading system for secondary markets should be encouraged.

(g) Governments should provide incentives to remove distortion in intermediation between bank financing and issuance of bonds, and to encourage holding and trading of bonds.

Market Infrastructure

Debt Settlement and Clearing System

23. A robust settlement system can ensure that the transfer of securities will take place efficiently such that settlement risk could be greatly reduced. Market players can then trade more actively, enhancing the liquidity of the debt market. Several Asian economies have adopted sophisticated settlement systems.

24. To assist the development of the debt market, the HKMA operates a clearing and custodian service called Central Moneymarkets Unit (CMU). This system enables settlement to take place electronically. It is linked with Euroclear and Cedel.

25. In Malaysia, Bank Negara operates the SPEEDS system, which includes the Interbank Funds Transfer System (IFTS) and the Scripless Securities Trading System (SSTS). A central depository system for private debts was also established in 1996. In Singapore, government securities are settled via book entry with the MAS. Chinese Taipei maintains a central depository system for securities trading and for clearing on the stock exchange, covering convertible bonds and government securities.

26. In Korea, the Korea Securities Depository system is established for clearing, settlement and custody of local debts listed in the Korea Stock Exchange. However, there is no clearing system for OTC transactions. In China, tradable T-bills are registered in the Shanghai Stock Exchange settlement system. However, the majority of bonds are in bearer form without standardized settlement procedures.

27. Australia, Canada, Chile, Indonesia, Japan, New Zealand, Thailand and the US also have settlement systems for domestic bonds.

Payment System

28. For interbank payments, Australia, Mexico, New Zealand, Hong Kong, Korea, Singapore, Chinese Taipei, Thailand and the US all have implemented Real Time Gross Settlement Systems (RTGS). For those economies which have not yet implemented RTGS, Canada, Chile, Malaysia and Japan plan to develop the system in the future.

29. Most interbank payment systems are not linked with other payment systems. Only Hong Kong has a unilateral link with Australia.

Recommendations

30. APEC member economies suggested the following steps to improve market infrastructure:

(a) APEC countries should develop bilateral or multilateral linkages between their securities settlement systems, with a view to promoting efficient clearing and securities settlement system, which can reduce transaction cost as well as settlement risk.

(b) APEC countries should establish bilateral or multilateral interbank payment linkages, with a view to reducing foreign exchange settlement risk (Herstatt risk). However, this could only be accomplished if the member economies implement RTGS.

Supply and Demand for Asian Bonds

31. With high savings rates, Asian investors have excess money to invest for higher returns. On the other hand, the public sector has enormous financing needs for infrastructure developments. A well-developed bond market could channel the excess savings from individuals to the public sector and corporates in a cost-effective manner.

32. Currently most issuers of bonds in APEC are governments and public sector entities. However, as fiscal discipline improves and budget deficits decline, there will be less government debt. In the US, although the public sector debt has increased during 1995-1997, private sector debt has increased at a faster speed. The proportion of public sector therefore declined from 72% at end-1995 to 70% at end-1997. In Asia, however, an opposite trend was observed. The proportion of public sector debt increased from 68% in end-1995 to 69% in end-1997. Both public and private sector debt declined, but private sector debt decreased at a faster pace than public sector debt.

33. Banks and financial institutions are the major buyers of Asian bonds. However, with increasing income and aging populations, most countries are in the process of establishing mandatory provident funds. Mutual fund companies are also expanding aggressively in Asia as people have more money to invest for their future. Therefore, the demand for Asian bonds is likely to increase in the coming years.

34. Australia, Canada, China, Korea, Malaysia, Mexico, New Zealand, Singapore, Chinese Taipei and Thailand all have plans to issue public sector debt in the near future. However, the amounts were not disclosed.

35. The survey revealed that most governments have restrictions on investment in Asian government bonds. They could only invest in bonds with public rating of single A or above. There are also maturity limits of up to 10 years. Only the US

government can invest in credit-enhanced Asian bonds, while other economies are prohibited from investing in such bonds. This might deter governments and central banks from holding debt securities issued by other governments.

36. No statistics are available for future financing needs of the corporate and private sectors. However, given the booming industrial and manufacturing sectors in Asia, there should be huge funding needs.

Recommendations

37. APEC member economies suggested the following steps to increase the supply and demand for Asian bonds:

(a) Disclosure requirements of debt issuers should be enhanced. More financial information would give more confidence to bond investors.

(b) Corporate debt could be "credit-guaranteed" by public or government entities to attract investors.

(c) Individuals should be educated on the concept of investing in debt securities such that the demand for bonds could be increased.

(d) Incentives should be provided to holders of debt securities to remove the distortion of intermediation between bank financing and issuance of bonds.

(e) Governments could consider allowing private companies to issue debt securities, provided that they can meet the disclosure and capital requirements. In this way, the supply of bonds could be increased and the private companies can have another alternative for financing.

Benchmark Yield Curve

38. Benchmark yield curves are crucial in the functioning of primary and secondary bond markets, by providing a reference for pricing private sector debt securities. The slope and curvature of the curve reflects the market perception of interest rate risk, liquidity risk and credit risk.

39. Most APEC economies have maintained government benchmark yield curves up to about 10 years. The only exceptions are Korea and Thailand, where corporate bonds are used as the yield curve benchmark.

40. It is difficult to maintain a reliable yield curve because of the buy-and-hold strategy of pension funds and long-term investors. Without an active secondary market, the yield curve would not be accurate or creditable.

41. In Singapore, Australia, Canada, the US, New Zealand and Mexico, government bonds are often issued to maintain the reliability and accuracy of the yield curves. However, most of the economies do not have the plan to extend the yield curve. Only Chinese Taipei, New Zealand and Mexico have such plans. Korea and Malaysia plan to build benchmark yield curves by issuing government or public sector bonds.

Regulatory Framework

42. A well-functioning bond market requires a regulatory system which prescribes a level playing field, clearly defined property rights, transparent information flow and a capable regulatory authority. This section discusses the existing regulatory framework and the main objectives of regulatory authorities in the region.

43. Regulatory bodies normally perform two functions: to promote market development, and to regulate the activities of market participants. Most Asian economies have established commissions to regulate and develop debt markets. Most of these commissions are under the control of finance ministries and are responsible for market surveillance, supervision and licensing of securities firms. Since 1992, regulatory authorities have been established in Thailand, Malaysia and China.

44. The following are the details of the regulatory systems of respective APEC member economies:

(a) Australia - The authority overseeing the issuance of bonds is the Australian Securities and Investment Commission. The authorities overseeing the investment of bonds are the Australian Securities & Investment Commission and the Australian Prudential Regulation Authority. The central bank (Reserve Bank of Australia) does not play a direct role on overseeing the issuance and investment of bonds.

(b) Canada - The authority overseeing the issuance and investment of bonds is the Department of Finance and the Bank of Canada. The Bank of Canada also acts as fiscal agent for the government in the issuance and investment of bonds.

(c) Chile - The authorities overseeing the issuance and investment in bonds are the Central Bank of Chile, Superintendency of Banks and the Securities and Insurance Commission.

(d) China - The China Securities Regulatory Commission (CSRC) was established in October 1992 by the State Council. The CSRC administers and supervises the securities markets and industry, and formulates regulations.

(e) Hong Kong - The Securities and Futures Commission is responsible for regulating both the securities and futures markets in Hong Kong. The Stock Exchange of Hong Kong and the Hong Kong Futures exchange supervise its members.

(f) Indonesia - The Ministry of Finance regulates the issuance of bonds through the Bapepam and the Central Bank. The Bapepam is responsible for issuance of bonds of maturity more than 5 years. The Central Bank is responsible for issuance of short-term notes and regulates the amount and quality of bonds that can be held by commercial banks.

(g) Japan - The Securities Bureau of the Ministry of Finance is responsible for the supervision of the debt market. Self-regulation plays an important role in the supervision of market practitioners. The Securities Exchange Council provides market practitioners' views on securities regulations.

(h) Korea - The Ministry of Finance and Economy (MFE) and the Financial Supervisory Commission (FSC) are responsible for developing and regulating Korean markets. The MFE is responsible for enactment and revision of securities laws and approval of securities companies. The FSC is responsible for inspection and supervision work. In addition, the Korean Stock Exchange and the Korean Securities Dealers Association serve as self-regulatory bodies. The Bank of Korea is the MFE's agent for government bonds issuance.

(i) Malaysia - The Malaysia Securities Commission (MSC) is responsible for regulating securities markets. In addition, corporate bond issues require approval from both the MSC and the central bank, Bank Negara Malaysia.

(j) Mexico - The authorities overseeing the issuance of bonds are Banco de Mexico (BdM) and the National Banking Securities Commission (NBSC). The NBSC is responsible for approving new issues. Subordinated bonds issued by commercial banks require additional approval from BdM.

(k) New Zealand - The authority overseeing the issuance of bonds is the New Zealand Securities Commission. There is no special regulatory body to oversee the investment of bonds.

(l) Singapore - The Monetary Authority of Singapore (MAS) is responsible for the developing and regulating securities markets. Issuers of bonds do not need prior approval from the MAS before they can issue, except for certain foreign issuers planning to issue S$ bonds. In addition, the

Stock Exchange of Singapore will be responsible for the regulation of its members on licensing, audit, financial reporting.

(m) Chinese Taipei - The Securities and Futures Commission and the Ministry of Finance are responsible for overseeing the issuance and investment of bonds. For issuance of bonds by commercial banks, the Central Bank will also be involved in the regulation. In addition, there is a ceiling on investment in bonds by foreign investors.

(n) Thailand - The Ministry of Finance is responsible for issuing government bonds and the Bank of Thailand acts as the distributor of bonds through the auction process. The Securities and Exchange Commission regulates issuance of bonds by securities companies.

(o) United States - The US has the oldest and the most experienced national regulatory body in the world. The Securities and Exchanges Commission (SEC) is responsible for administering federal securities laws, ensuring that markets are fair and honest, and market practitioners are complying with applicable laws and regulations. The SEC, however, does not have direct regulatory authority over the securities activities of commercial banks.

Self-regulation

45. In certain countries, such as Japan and Korea, much of the day-to-day regulation is carried out by self-regulatory organizations, under the oversight of a government regulatory body. In general, stock exchanges are responsible for the market surveillance, supervision of members and licensing. As markets become more sophisticated, self-regulation will assume a more important role than regulatory bodies in direct supervision of markets.

Protection of Property Rights

46. Clearly defined property rights and enforceable contracts are essential to give investors peace of mind to invest in a security. The survey revealed that all Asian economies have adequate laws to protect bondholders in case of default by bond issuers. The debt holders can sue the issuer in court through civil proceedings. If an issuer becomes insolvent, its assets will be liquidated and bondholders will receive the proceeds before the shareholders. If there is a guarantor, debt holders can demand that the guarantor repay the debt.

Recommendations

47. APEC member economies suggested the following steps to enhance regulatory standards:

(a) As some debt transactions are conducted over-the-counter, there is a clear need to define how such activities could be conducted such that investors' rights can be adequately protected.

(b) Governments should also define the conditions under which private placements will be permitted.

(c) As more sophisticated products, such as derivatives on bonds, are introduced to the markets, it is imperative that regulations and compliance standards be developed to protect the investors' interests.

Annex 1: Exchange Rates Used

No	Member Economies	Period	Exchange Rates (per one USD)
1	Australia	End-1995	1.3463
		End-1996	1.2593
		End-1997	1.5377
		End-08/98	1.7612
2	Brunei Darussalam	End-1995	1.4140
		End-1996	1.4004
		End-1997	1.6585
		End-08/98	1.7670
3	Canada	End-1995	1.3645
		End-1996	1.3705
		End-1997	1.4296
		End-08/98	1.5670
4	Chile	End-1995	407.13
		End-1996	424.87
		End-1997	439.70
		End-08/98	473.55
5	China	End-1995	8.3174
		End-1996	8.2984
		End-1997	8.2795
		End-08/98	8.2800
6	Hong Kong	End-1995	7.7320
		End-1996	7.7360
		End-1997	7.7460
		End-08/98	7.7430
7	Indonesia	End-1995	2,287
		End-1996	2,363
		End-1997	5,403
		End-08/98	11,150
8	Japan	End-1995	103.51
		End-1996	115.70
		End-1997	130.58
		End-08/98	139.30
9	Korea	End-1995	770.2
		End-1996	840.9
		End-1997	1,600.0
		End-08/98	1,350.0
10	Malaysia	End-1995	2.5397
		End-1996	2.5250
		End-1997	3.8750
		End-08/98	4.1750

Annex 1: Exchange Rates Used

No	Member Economies	Period	Exchange Rates (per one USD)
11	Mexico	End-1995	7.6950
		End-1996	7.8900
		End-1997	8.0550
		End-08/98	9.9600
12	New Zealand	End-1995	1.5295
		End-1996	1.4150
		End-1997	1.7199
		End-08/98	2.0197
13	Singapore	End-1995	1.4143
		End-1996	1.3993
		End-1997	1.6780
		End-08/98	1.7747
14	Chinese Taipei	End-1995	27.2860
		End-1996	27.4880
		End-1997	32.5500
		End-08/98	34.7850
15	Thailand	End-1995	25.1900
		End-1996	25.6500
		End-1997	47.0000
		End-08/98	41.7500
16	USA	End-1995	1.0000
		End-1996	1.0000
		End-1997	1.0000
		End-08/98	1.0000

Annex 2 (Q.1.1): Bonds Denominated in Local Currency (Nominal Value; in Local Ccy Mn)

		Public Sector			Private Sector						
	Bonds Issued by	Government	Other Public Sector	Public Sector Total	Banks	Other Financial Institutions	Corporations	Private Sector Total	Total Bonds	GDP	Total/ GDP
1 Australia	End-1995	107,289.00	47,113.00	154,402.00	99,982.00	9,853.00	23,774.00	133,609.00	288,011.00	476,880	60%
	End-1996	111,502.00	42,327.00	153,829.00	106,763.00	11,983.00	31,775.00	150,521.00	304,350.00	504,960	60%
	End-1997	103,935.00	39,065.00	143,000.00	117,386.00	15,832.00	42,045.00	175,263.00	318,263.00	529,410	60%
	End-08/98	96,357.00	41,824.00	138,181.00	133,333.00	14,465.00	44,735.00	192,533.00	330,714.00	557,320	59%
2 Brunei	End-1995	-	-	-	-	-	-	-	-		
	End-1996	-	-	-	-	-	-	-	-		
	End-1997	-	-	-	-	-	-	-	-		
	End-08/98	-	-	-	-	-	-	-	-		
3 Canada	End-1995	285,339.00	218,576.00	503,915.00	24,102.00	994.00	51,710.00	76,806.00	580,721.00	788,040	74%
	End-1996	314,975.00	218,764.00	533,739.00	30,210.00	918.00	54,549.00	85,677.00	619,416.00	820,320	76%
	End-1997	333,801.00	224,662.00	558,463.00	39,709.00	828.00	61,908.00	102,445.00	660,908.00	855,100	77%
	End-08/98			-				-	-		
4 Chile	End-1995	81.00	7,657.00	7,738.00	88.00	-	900.00	988.00	8,726.00	25,875,700	0.03%
	End-1996	95.00	8,903.00	8,998.00	89.00	-	889.00	978.00	9,976.00	28,536,200	0.03%
	End-1997	59.00	10,570.00	10,629.00	82.00	-	778.00	860.00	11,489.00	32,321,400	0.04%
	End-09/98	-	9,478.00	9,478.00	127.00	-	827.00	954.00	10,432.00		

Annex 2 (Q.1.1): Bonds Denominated in Local Currency (Nominal Value; in Local Ccy Mn)

		Public Sector			Private Sector						
	Bonds Issued by	Government	Other Public Sector	Public Sector Total	Banks	Other Financial Institutions	Corporations	Private Sector Total	Total Bonds	GDP	Total/ GDP
5 China	End-1995	330,030.00	25,850.00	355,880.00	-	170,850.00	64,660.00	235,510.00	591,390.00	5,940,500	10%
	End-1996	436,140.00	25,850.00	461,990.00	-	250,960.00	59,770.00	310,730.00	772,720.00	6,936,600	11%
	End-1997	547,230.00	-	547,230.00	-	362,880.00	-	362,880.00	910,110.00	7,607,700	12%
	End-08/98	-	-	-	-	-	-	-	-		
6 Hong Kong	End-1995	58,730.00	6,795.00	65,525.00	96,451.00	13,550.00	21,530.00	131,531.00	197,056.00	1,077,000	18%
	End-1996	91,850.00	3,645.00	95,495.00	143,516.00	18,500.00	21,396.00	183,412.00	278,907.00	1,193,000	23%
	End-1997	101,650.00	3,495.00	105,145.00	186,469.00	25,950.00	27,944.00	240,363.00	345,508.00	1,339,000	26%
	End-08/98	97,450.00	6,395.00	103,845.00	186,473.00	61,637.00	30,955.00	279,065.00	382,910.00		
7 Indonesia	End-1995	-	4,413.00	4,413.00	1,061.00	180.00	1,595.00	2,836.00	7,249.00	454,514,000	0.002%
	End-1996	-	5,463.00	5,463.00	1,152.00	280.00	2,820.00	4,252.00	9,715.00	532,631,000	0.002%
(central bank	End-1997	-	6,263.00	6,263.00	1,127.00	1,105.00	7,108.00	9,340.00	15,603.00	624,337,000	0.002%
debt excluded)	End-08/98	-	5,563.00	5,563.00	1,092.00	1,080.00	6,968.00	9,140.00	14,703.00		

Annex 2 (Q.1.1): Bonds Denominated in Local Currency (Nominal Value; in Local Ccy Mn)

		Public Sector			Private Sector						
	Bonds Issued by	Government	Other Public Sector	Public Sector Total	Banks	Other Financial Institutions	Corporations	Private Sector Total	Total Bonds	GDP	Total/ GDP
8 Japan	End-1995	###########	21,837,500.00	###########	###########	-	57,090,700.00	133,171,400.00	445,781,000.00	483,220,000	92%
	End-1996	###########	23,133,000.00	###########	###########	-	62,851,100.00	137,262,200.00	474,443,900.00	499,861,000	95%
	End-1997	###########	23,993,800.00	###########	###########	-	65,321,300.00	132,565,800.00	481,945,900.00	507,271,000	95%
	End-06/98	###########	23,982,200.00	###########	###########	-	68,600,300.00	130,217,600.00	497,715,300.00		
9 Korea	End-1995	22,785,821.00	32,532,840.00	55,318,661.00	-	14,223,500.00	56,455,874.00	70,679,374.00	125,998,035.00	351,975,000	36%
	End-1996	29,405,800.00	53,723,480.00	83,129,280.00	-	19,289,940.00	73,120,481.00	92,410,421.00	175,539,701.00	389,813,000	45%
	End-1997	37,519,766.00	76,365,432.00	###########	212,591.00	24,207,196.00	86,024,195.00	110,443,982.00	224,329,180.00	420,987,000	53%
	End-08/98	36,449,649.00	###########	###########	321,591.00	26,380,323.00	###########	126,997,411.00	273,282,602.00		
10 Malaysia	End-1995	74,089.00	8,236.00	82,325.00	44,378.00	20,033.00	28,673.00	93,084.00	175,409.00	218,671	80%
	End-1996	75,380.00	6,062.00	81,442.00	52,824.00	30,711.00	43,697.00	127,232.00	208,674.00	249,503	84%
	End-1997	73,332.00	2,827.00	76,159.00	70,148.00	40,208.00	59,469.00	169,825.00	245,984.00	275,367	89%
	End-08/98	72,382.00	3,016.00	75,398.00	64,070.00	36,671.00	59,082.00	159,823.00	235,221.00		
11 Mexico	End-1995	108,867.42	-	108,867.42	139,817.19	-	-	139,817.19	248,684.61	1,837,019	14%
	End-1996	141,411.50	-	141,411.50	110,154.73	-	-	110,154.73	251,566.23	2,503,814	10%
	End-1997	272,218.27	-	272,218.27	115,787.36	-	-	115,787.36	388,005.63	3,187,441	12%

Annex 2 (Q.1.1): Bonds Denominated in Local Currency (Nominal Value; in Local Ccy Mn)

		Public Sector			Private Sector						
	Bonds Issued by	Government	Other Public Sector	Public Sector Total	Banks	Other Financial Institutions	Corporations	Private Sector Total	Total Bonds	GDP	Total/ GDP
	End-08/98	335,912.48	-	335,912.48	106,834.39	-	-	106,834.39	442,746.87		
12 New Zealand	End-1995	29,496.00	3,911.00	33,407.00	12,304.00	914.00	4,487.00	17,705.00	51,112.00	91,739	56%
	End-1996	30,048.00	3,377.00	33,425.00	16,674.00	1,158.00	4,843.00	22,675.00	56,100.00	95,816	59%
	End-1997	28,523.00	3,666.00	32,189.00	19,921.00	1,344.00	5,361.00	26,626.00	58,815.00	98,478	60%
	End-08/98	28,357.00	3,781.00	32,138.00	20,625.00	1,195.00	5,688.00	27,508.00	59,646.00		
13 Singapore	End-1995	20,300.00	-	20,300.00	-	40.00	3,462.10	3,502.10	23,802.10	120,704	20%
	End-1996	20,500.00	-	20,500.00	-	85.00	2,659.90	2,744.90	23,244.90	130,775	18%
	End-1997	23,100.00	-	23,100.00	-	-	6,083.18	6,083.18	29,183.18	143,014	20%
	End-08/98	26,900.00	-	26,900.00	-	-	1,759.14	1,759.14	28,659.14		

Annex 2 (Q.1.1): Bonds Denominated in Local Currency (Nominal Value; in Local Ccy Mn)

		Public Sector			Private Sector						
	Bonds Issued by	Government	Other Public Sector	Public Sector Total	Banks	Other Financial Institutions	Corporations	Private Sector Total	Total Bonds	GDP	Total/ GDP
14 Chinese Taipei	End-1995	867,140.00	20,160.00	887,300.00	0.00	0.00	72,040.00	72,040.00	959,340.00	6,892,046	14%
	End-1996	996,277.00	34,412.00	1,030,689.00	0.00	0.00	216,031.00	216,031.00	1,246,720.00	7,477,540	17%
	End-1997	1,038,831.00	32,019.00	1,070,850.00	0.00	0.00	291,209.00	291,209.00	1,362,059.00	8,131,152	17%
	End-08/98	1,055,934.00	43,559.00	1,099,493.00	0.00	0.00	366,314.00	366,314.00	1,465,807.00		
15 Thailand	End-1995	42,966.20	247,778.80	290,745.00	21,390.90	89,227.50	-	- 110,618.40	401,363.40	4,194,600	10%
	End-1996	18,054.30	318,867.80	336,922.10	18,987.00	130,188.90	-	149,175.90	486,098.00	4,689,600	10%
	End-1997	13,755.00	345,043.10	358,798.10	8,710.30	132,591.30	-	141,301.60	500,099.70	4,827,200	10%
	End-06/98	212,229.20	366,396.38	578,625.58	10,833.90	113,006.10	-	123,840.00	702,465.58		
16 USA	End-1995	4,902,000.00	2,405,000.00	7,307,000.00	161,100.00	1,044,300.00	1,618,200.00	(Note 1) 2,823,600.00	10,130,600.00	7,265,400	139%
	End-1996	5,051,100.00	2,634,900.00	7,686,000.00	168,900.00	1,216,200.00	1,746,500.00	3,131,600.00	10,817,600.00	7,661,600	141%
	End-1997	5,145,800.00	2,847,600.00	7,993,400.00	192,600.00	1,367,500.00	1,883,900.00	3,444,000.00	11,437,400.00	8,110,900	141%
	End-06/98	5,149,200.00	3,006,800.00	8,156,000.00	209,500.00	1,524,000.00	1,989,500.00	3,723,000.00	11,879,000.00	8,440,600	141%

GDP figures from *International Financial Statistics* , November 1998

GDP figures for Chinese Taipei from official figures, September 1998

Note 1: For Thailand, the figures for "Other Financial Institutions" include corporate sector debt.

Annex 3 (Q. 1.1): Bonds Denominated in Local Currency (Nominal Value; in USD Mn)

		Public Sector			Private Sector						
	Bonds Issued by	Government	Other Public Sector	Public Sector Total	Banks	Other Financial Institutions	Corporations	Private Sector Total	Total Bonds	Public Sector	Private Sector
1 Australia	End-1995	79,691.75	34,994.43	114,686.18	74,264.28	7,318.58	17,658.77	99,241.63	213,927.80	54%	46%
	End-1996	88,542.84	33,611.53	122,154.37	84,779.64	9,515.60	25,232.27	119,527.52	241,681.89	51%	49%
	End-1997	67,591.21	25,404.83	92,996.03	76,338.69	10,295.90	27,342.78	113,977.37	206,973.40	45%	55%
	End-08/98	54,710.99	23,747.44	78,458.44	75,705.77	8,213.15	25,400.30	109,319.21	187,777.65	42%	58%
2 Brunei Darussalam	End-1995	-	-	-	-	-	-	-	-		
	End-1996	-	-	-	-	-	-	-	-		
	End-1997	-	-	-	-	-	-	-	-		
	End-08/98	-	-	-	-	-	-	-	-		
3 Canada	End-1995	209,116.16	160,187.61	369,303.77	17,663.61	728.47	37,896.67	56,288.75	425,592.52	87%	13%
	End-1996	229,824.88	159,623.50	389,448.38	22,043.05	669.83	39,802.26	62,515.14	451,963.52	86%	14%
	End-1997	233,492.59	157,150.25	390,642.84	27,776.30	579.18	43,304.42	71,659.90	462,302.74	84%	16%
	End-08/98	-	-	-	-	-	-	-	-		
4 Chile	End-1995	0.20	18.81	19.01	0.22	-	2.21	2.43	21.43	89%	11%
	End-1996	0.22	20.95	21.18	0.21	-	2.09	2.30	23.48	90%	10%
	End-1997	0.13	24.04	24.17	0.19	-	1.77	1.96	26.13	93%	7%
	End-09/98	-	20.01	20.01	0.27	-	1.75	2.01	22.03	91%	9%

Annex 3 (Q. 1.1): Bonds Denominated in Local Currency (Nominal Value; in USD Mn)

		Public Sector			Private Sector					
	Bonds Issued by	Government	Other Public Sector	Public Sector Total	Banks	Other Financial Institutions	Corporations	Private Sector Total	Total Bonds	Public Sector	Private Sector
5 China	End-1995	39,679.47	3,107.94	42,787.41	-	20,541.27	7,774.06	28,315.34	71,102.75	60%	40%
	End-1996	52,557.12	3,115.06	55,672.18	-	30,241.97	7,202.59	37,444.57	93,116.75	60%	40%
	End-1997	66,094.57	-	66,094.57	-	43,828.73	-	43,828.73	109,923.30	60%	40%
	End-08/98	-	-	-	-	-	-	-	-		
6 Hong Kong	End-1995	7,595.71	878.82	8,474.52	12,474.26	1,752.46	2,784.53	17,011.25	25,485.77	33%	67%
	End-1996	11,879.20	471.42	12,350.62	18,561.30	2,392.65	2,767.20	23,721.16	36,071.78	34%	66%
	End-1997	13,146.66	452.02	13,598.68	24,116.53	3,356.18	3,614.07	31,086.78	44,685.46	30%	70%
	End-08/98	12,603.47	827.08	13,430.55	24,117.05	7,971.68	4,003.49	36,092.21	49,522.76	27%	73%
7 Indonesia	End-1995	-	1.93	1.93	0.46	0.08	0.70	1.24	3.17	61%	39%
	End-1996	-	2.31	2.31	0.49	0.12	1.19	1.80	4.11	56%	44%
(central bank	End-1997	-	1.16	1.16	0.21	0.20	1.32	1.73	2.89	40%	60%
debt excluded)	End-08/98	-	0.50	0.50	0.10	0.10	0.62	0.82	1.32	38%	62%

Annex 3 (Q. 1.1): Bonds Denominated in Local Currency (Nominal Value; in USD Mn)

		Public Sector			Private Sector						
	Bonds Issued by	Government	Other Public Sector	Public Sector Total	Banks	Other Financial Institutions	Corporations	Private Sector Total	Total Bonds	Public Sector	Private Sector
8 Japan	End-1995	2,809,120.86	210,969.95	3,020,090.81	735,008.21	-	551,547.68	1,286,555.89	4,306,646.70	70%	30%
	End-1996	2,714,336.21	199,939.50	2,914,275.71	643,138.29	-	543,224.72	1,186,363.01	4,100,638.72	71%	29%
	End-1997	2,491,854.04	183,747.89	2,675,601.93	514,967.84	-	500,239.70	1,015,207.54	3,690,809.47	72%	28%
	End-06/98	2,466,012.20	172,162.24	2,638,174.44	442,335.25	-	492,464.47	934,799.71	3,572,974.16	74%	26%
9 Korea	End-1995	29,584.29	42,239.47	71,823.76	-	18,467.28	73,300.28	91,767.56	163,591.32	44%	56%
	End-1996	34,969.44	63,888.07	98,857.51	-	22,939.64	86,955.03	109,894.66	208,752.17	47%	53%
	End-1997	23,449.85	47,728.40	71,178.25	132.87	15,129.50	53,765.12	69,027.49	140,205.74	51%	49%
	End-08/98	26,999.74	81,359.66	108,359.40	238.22	19,540.98	74,292.96	94,072.16	202,431.56	54%	46%
10 Malaysia	End-1995	29,172.34	3,242.90	32,415.25	17,473.72	7,887.94	11,289.92	36,651.57	69,066.82	47%	53%
	End-1996	29,853.47	2,400.79	32,254.26	20,920.40	12,162.77	17,305.74	50,388.91	82,643.17	39%	61%
	End-1997	18,924.39	729.55	19,653.94	18,102.71	10,376.26	15,346.84	43,825.81	63,479.74	31%	69%
	End-08/98	17,337.01	722.40	18,059.40	15,346.11	8,783.47	14,151.38	38,280.96	56,340.36	32%	68%
11 Mexico	End-1995	14,147.81	-	14,147.81	18,169.88	-	-	18,169.88	32,317.69	44%	56%
	End-1996	17,922.88	-	17,922.88	13,961.31	-	-	13,961.31	31,884.19	56%	44%
	End-1997	33,794.94	-	33,794.94	14,374.59	-	-	14,374.59	48,169.54	70%	30%

Annex 3 (Q. 1.1): Bonds Denominated in Local Currency (Nominal Value; in USD Mn)

		Public Sector			Private Sector						
	Bonds Issued by	Government	Other Public Sector	Public Sector Total	Banks	Other Financial Institutions	Corporations	Private Sector Total	Total Bonds	Public Sector	Private Sector
	End-08/98	33,726.15	-	33,726.15	10,726.34	-	-	10,726.34	44,452.50	76%	24%
12 New Zealand	End-1995	19,284.73	2,557.04	21,841.78	8,044.46	597.58	2,933.64	11,575.68	33,417.46	65%	35%
	End-1996	21,235.34	2,386.57	23,621.91	11,783.75	818.37	3,422.61	16,024.73	39,646.64	60%	40%
	End-1997	16,584.10	2,131.52	18,715.62	11,582.65	781.44	3,117.04	15,481.13	34,196.76	55%	45%
	End-08/98	14,040.20	1,872.06	15,912.26	10,211.91	591.67	2,816.26	13,619.84	29,532.11	54%	46%
13 Singapore	End-1995	14,353.39	-	14,353.39	-	28.28	2,447.92	2,476.21	16,829.60	85%	15%
	End-1996	14,650.18	-	14,650.18	-	60.74	1,900.88	1,961.62	16,611.81	88%	12%
	End-1997	13,766.39	-	13,766.39	-	-	3,625.26	3,625.26	17,391.64	79%	21%
	End-08/98	15,157.49	-	15,157.49	-	-	991.23	991.23	16,148.72	94%	6%
14 Chinese Taipei	End-1995	31,779.67	738.84	32,518.51	-	-	2,640.18	2,640.18	35,158.69	92%	8%
	End-1996	36,244.07	1,251.89	37,495.96	-	-	7,859.10	7,859.10	45,355.06	83%	17%
	End-1997	31,914.93	983.69	32,898.62	-	-	8,946.51	8,946.51	41,845.13	79%	21%
	End-08/98	30,356.02	1,252.24	31,608.25	-	-	10,530.80	10,530.80	42,139.05	75%	25%

Annex 3 (Q. 1.1): Bonds Denominated in Local Currency (Nominal Value; in USD Mn)

		Public Sector			Private Sector						
	Bonds Issued by	**Government**	**Other Public Sector**	**Public Sector Total**	**Banks**	**Other Financial Institutions**	**Corporations**	**Private Sector Total**	**Total Bonds**	**Public Sector**	**Private Sector**
15 Thailand	End-1995	1,705.68	9,836.40	11,542.08	849.18	3,542.18	-	4,391.36	15,933.44	72%	31%
	End-1996	703.87	12,431.49	13,135.36	740.23	5,075.59	-	5,815.82	18,951.19	69%	31%
	End-1997	292.66	7,341.34	7,634.00	185.33	2,821.09	-	3,006.42	10,640.42	72%	28%
	End-06/98	5,083.33	8,775.96	13,859.30	259.49	2,706.73	-	2,966.23	16,825.52	82%	18%
16 USA	End-1995	4,902,000.00	2,405,000.00	7,307,000.00	161,100.00	1,044,300.00	1,618,200.00	2,823,600.00	10,130,600.00	72%	28%
	End-1996	5,051,100.00	2,634,900.00	7,686,000.00	168,900.00	1,216,200.00	1,746,500.00	3,131,600.00	10,817,600.00	71%	29%
	End-1997	5,145,800.00	2,847,600.00	7,993,400.00	192,600.00	1,367,500.00	1,883,900.00	3,444,000.00	11,437,400.00	70%	30%
	End-06/98	5,149,200.00	3,006,800.00	8,156,000.00	209,500.00	1,524,000.00	1,989,500.00	3,723,000.00	11,879,000.00	69%	31%
17 **Total**	End-1995	8,187,232.06	2,873,774.15	###########	1,045,048.28	1,105,164.12	2,328,476.55	4,478,688.96	15,539,695.17	71%	29%
(16 APEC	End-1996	8,303,819.72	3,114,043.09	###########	984,828.66	1,300,077.30	2,482,175.70	4,767,081.66	16,184,944.47	71%	29%
members)	End-1997	8,156,706.46	3,273,294.68	###########	880,177.90	1,454,668.49	2,543,204.83	4,878,051.22	16,308,052.36	70%	30%
	End-08/98	7,825,226.61	3,297,539.59	###########	788,440.50	1,571,807.78	2,614,153.26	4,974,401.54	16,097,167.74	69%	31%
18 **Total**	End-1995	3,285,232.06	468,774.15	3,754,006.21	883,948.28	60,864.12	710,276.55	1,655,088.96	5,409,095.17	69%	31%
(15 members,	End-1996	3,252,719.72	479,143.09	3,731,862.81	815,928.66	83,877.30	735,675.70	1,635,481.66	5,367,344.47	70%	30%
excluding the US)	End-1997	3,010,906.46	425,694.68	3,436,601.14	687,577.90	87,168.49	659,304.83	1,434,051.22	4,870,652.36	71%	29%

Annex 3 (Q. 1.1): Bonds Denominated in Local Currency (Nominal Value; in USD Mn)

		Public Sector			Private Sector						
	Bonds Issued by	**Government**	**Other Public Sector**	**Public Sector Total**	**Banks**	**Other Financial Institutions**	**Corporations**	**Private Sector Total**	**Total Bonds**	**Public Sector**	**Private Sector**
	End-08/98	2,676,026.61	290,739.59	2,966,766.20	578,940.50	47,807.78	624,653.26	1,251,401.54	4,218,167.74	70%	30%
19 **Total**	End-1995	476,111.20	257,804.19	733,915.39	148,940.07	60,864.12	158,728.88	368,533.07	1,102,448.46	67%	33%
(14 members,	End-1996	538,383.51	279,203.59	817,587.10	172,790.37	83,877.30	192,450.98	449,118.65	1,266,705.75	65%	35%
excluding the US	End-1997	519,052.43	241,946.78	760,999.21	172,610.06	87,168.49	159,065.13	418,843.68	1,179,842.90	65%	35%
and Japan) *	End-08/98	210,014.40	118,577.35	328,591.76	136,605.26	47,807.78	132,188.79	316,601.83	645,193.58	51%	49%
20 **Total (Asia)**	End-1995	3,061,967.89	308,567.72	3,370,535.61	848,114.58	60,135.65	672,377.68	1,580,627.91	4,951,163.52	68%	32%
(12 members,	End-1996	3,004,971.74	319,498.64	3,324,470.38	779,924.09	83,207.47	695,871.34	1,559,002.91	4,883,473.29	68%	32%
excluding the US	End-1997	2,743,618.80	268,520.39	3,012,139.19	645,426.82	86,589.30	615,998.64	1,348,014.76	4,360,153.95	69%	31%
Canada, Chile and	End-08/98	2,642,300.45	290,719.58	2,933,020.03	568,213.89	47,807.78	624,651.51	1,240,673.18	4,173,693.22	70%	30%
Mexico)											

* The 1998 figures for Canada is not available, which would affect the interpretation of data.

Annex 4 (Q. 1.2): Bond Denominated in Foreign Currency (Nominal value; in USD Mn)

		Public Sector Bonds			Private Sector Bonds				
	Bonds Issued by	**Government**	**Other Public Sector**	**Public Sector Total**	**Banks**	**Other Financial**	**Corporations**	**Private Sector Total**	**Total Bonds**
1 Australia	End-1995	-	-	-	-	-	-	-	-
	End-1996	-	-	-	-	-	-	-	-
	End-1997	-	-	-	-	-	-	-	-
	End-08/98	-	-	-	-	-	-	-	-
2 Brunei Darussalam	End-1995	-	-	-	-	-	-	-	-
	End-1996	-	-	-	-	-	-	-	-
	End-1997	-	-	-	-	-	-	-	-
	End-08/98	-	-	-	-	-	-	-	-
3 Canada	End-1995	10,912.00	160,092.00	171,004.00	32,886.00	204.00	67,919.00	101,009.00	272,013.00
	End-1996	14,517.00	160,757.00	175,274.00	35,523.00	154.00	73,078.00	108,755.00	284,029.00
	End-1997	14,473.00	159,411.00	173,884.00	45,341.00	158.00	81,817.00	127,316.00	301,200.00
	End-08/98	-	-	-	-	-	-	-	-
4 Chile	End-1995	-	-	-	-	-	866.00	866.00	866.00
	End-1996	-	-	-	-	-	2,725.00	2,725.00	2,725.00
	End-1997	-	-	-	-	-	-	-	-
	End-09/98	-	-	-	-	-	-	-	-
5 China	End-1995	-	-	-	-	-	-	-	-
	End-1996	-	-	-	-	-	-	-	-
	End-1997	-	-	-	-	-	-	-	-
	End-08/98	-	-	-	-	-	-	-	-
6 Hong Kong	End-1995	-	-	-	-	-	-	-	-
	End-1996	-	-	-	-	-	-	-	-
	End-1997	-	-	-	-	-	-	-	-
	End-08/98	-	-	-	-	-	-	-	-
7 Indonesia	End-1995	-	-	-	-	-	-	-	-
	End-1996	-	-	-	-	-	-	-	-
	End-1997	-	-	-	-	-	-	-	-
	End-08/98	-	-	-	-	-	-	-	-

Annex 4 (Q. 1.2): Bond Denominated in Foreign Currency (Nominal value; in USD Mn)

	Public Sector Bonds			Private Sector Bonds				
Bonds Issued by	Government	Other Public Sector	Public Sector Total	Banks	Other Financial	Corporations	Private Sector Total	Total Bonds

Annex 4 (Q. 1.2): Bond Denominated in Foreign Currency (Nominal value; in USD Mn)

		Public Sector Bonds			Private Sector Bonds				
	Bonds Issued by	Government	Other Public Sector	Public Sector Total	Banks	Other Financial	Corporations	Private Sector Total	Total Bonds
8 Japan	End-1995	-	1,400.00	1,400.00	-	-	150.00	150.00	1,550.00
	End-1996	-	933.00	933.00	-	-	50.00	50.00	983.00
	End-1997	-	473.00	473.00	-	-	-	-	473.00
	End-08/98	-	473.00	473.00	-	-	-	-	473.00
9 Korea	End-1995	-	-	-	-	-	-	-	-
	End-1996	-	-	-	-	-	-	-	-
	End-1997	-	-	-	-	-	-	-	-
	End-08/98	127.50	-	127.50	-	-	-	-	127.50
10 Malaysia	End-1995	1,997.84	1,850.00	3,847.84	-	-	114.00	114.00	3,961.84
	End-1996	1,536.31	2,240.15	3,776.45	-	-	171.00	171.00	3,947.45
	End-1997	1,377.89	791.01	2,168.90	-	-	606.33	606.33	2,775.23
	End-08/98	-	-	-	-	-	-	-	-
11 Mexico	End-1995	224.39	-	224.39	-	-	-	-	224.39
	End-1996	-	-	-	-	-	-	-	-
	End-1997	-	-	-	-	-	-	-	-
	End-08/98	-	-	-	-	-	-	-	-
12 New Zealand	End-1995	-	-	-	-	-	-	-	-
	End-1996	-	-	-	-	-	-	-	-
	End-1997	-	-	-	-	-	-	-	-
	End-08/98	-	-	-	-	-	-	-	-
13 Singapore	End-1995	-	-	-	150.00	119.40	619.00	888.40	888.40
	End-1996	-	-	-	350.00	40.00	1,822.50	2,212.50	2,212.50
	End-1997	-	-	-	200.00	-	976.50	1,176.50	1,176.50
	End-08/98	-	-	-	-	-	149.30	149.30	149.30
14 Chinese Taipei	End-1995	31,804.00	739.00	32,543.00	0.00	0.00	2,642.00	2,642.00	35,185.00
	End-1996	36,240.00	1,252.00	37,492.00	0.00	0.00	7,858.00	7,858.00	45,350.00
	End-1997	31,829.00	981.00	32,810.00	0.00	0.00	8,922.00	8,922.00	41,732.00
	End-08/98	30,724.00	1,268.00	31,992.00	0.00	0.00	10,664.00	10,664.00	42,656.00

Annex 4 (Q. 1.2): Bond Denominated in Foreign Currency (Nominal value; in USD Mn)

	Public Sector Bonds			Private Sector Bonds				
Bonds Issued by	Government	Other Public Sector	Public Sector Total	Banks	Other Financial	Corporations	Private Sector Total	Total Bonds

Annex 4 (Q. 1.2): Bond Denominated in Foreign Currency (Nominal value; in USD Mn)

		Public Sector Bonds			Private Sector Bonds				
	Bonds Issued by	**Government**	**Other Public Sector**	**Public Sector Total**	**Banks**	**Other Financial**	**Corporations**	**Private Sector Total**	**Total Bonds**
15 Thailand	End-1995	1,750.30	417.00	2,167.30	-	5,055.00	-	5,055.00	7,222.30
	End-1996	2,158.60	1,017.00	3,175.60	-	7,419.00	-	7,419.00	10,594.60
	End-1997	1,995.50	1,444.40	3,439.90	999.80	5,734.00	-	6,733.80	10,173.70
	End-08/98	1,966.40	1,444.40	3,410.80	502.90	5,876.00	-	6,378.90	9,789.70
16 USA	End-1995	-	-	-	-	-	-	-	-
	End-1996	-	-	-	-	-	-	-	-
	End-1997	-	-	-	-	-	-	-	-
	End-08/98	-	-	-	-	-	-	-	-
17 Total	End-1995	46,688.53	164,498.00	211,186.53	33,036.00	5,378.40	72,310.00	110,724.40	321,910.93
(16 members)	End-1996	54,451.91	166,199.15	220,651.05	35,873.00	7,613.00	85,704.50	129,190.50	349,841.55
	End-1997	49,675.39	163,100.41	212,775.80	46,540.80	5,892.00	92,321.83	144,754.63	357,530.43
	End-08/98	32,817.90	3,185.40	36,003.30	502.90	5,876.00	10,813.30	17,192.20	53,195.50

Annex 5 (Q. 1.3): Holder of Local Currency Denominated Bonds as of End-August 1998 (Nominal Value; in Local Ccy Mn)

	Bond Issues	Held by Local						Held by			
		Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Individuals	Foreigners	Total	% Local	% Foreign
1 Australia	Government	3,100.0	15,500.0	14,400.0	19,600.0	3,700.0	-	38,400.0	94,700.0	59%	41%
(Jun 98)	Other Public Sectors	-	8,300.0	6,000.0	22,200.0	1,000.0	-	200.0	37,700.0	99%	1%
	Banks	-	9,500.0	15,700.0	62,500.0	19,800.0	-	19,000.0	126,500.0	85%	15%
	Other Financial	-	1,900.0	1,000.0	12,200.0	300.0	-	3,200.0	18,600.0	83%	17%
	Corporations	-	900.0	3,600.0	32,600.0	4,800.0	-	-	41,900.0	100%	0%
	Total	3,100.0	36,100.0	40,700.0	149,100.0	29,600.0	-	60,800.0	319,400.0	81%	19%
2 Brunei	Government	-	-	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-
3 Canada	Government	-	-	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-
4 Chile	Government	-	-	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-
5 China	Government	-	-	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	1,500.0	800.0	-	-	-	2,300.0	100%	0%

Annex 5 (Q. 1.3): Holder of Local Currency Denominated Bonds as of End-August 1998 (Nominal Value; in Local Ccy Mn)

	Bond Issues	Government	Other Public Sector	Held by Local Banks	Other Financial Institutions	Corporations	Individuals	Held by Foreigners	Total	% Local	% Foreign
	Other Financial Inst.	-	-	830.0	3,930.0	800.0	200.0	-	5,760.0	100%	0%
	Corporations	-	-	-	2,070.0	19,630.0	105,068.0	-	126,768.0	100%	0%
	Total	-	-	2,330.0	6,800.0	20,430.0	105,268.0	-	134,828.0	100%	0%
6 Hong Kong	Government	25,100.0	-	59,902.0	4,488.0	7,960.0	-	-	97,450.0	100%	0%
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-

Annex 5 (Q. 1.3): Holder of Local Currency Denominated Bonds as of End-August 1998 (Nominal Value; in Local Ccy Mn)

	Bond Issues	Held by Local						Held by			
		Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Individuals	Foreigners	Total	% Local	% Foreign
7 Indonesia	Government	-	-	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-
8 Japan	Government	6,842,000.0	137,777,000.0	112,673,500.0	-	-	4,924,300.0	-	262,216,800.0	100%	0%
(Mar 97)	Other Public Sectors	-	79,051,500.0	46,798,100.0	-	23,607,000.0	4,105,900.0	46,080,400.0	199,642,900.0	77%	23%
	Banks	-	-	40,099,800.0	-	-	20,481,900.0	-	60,581,700.0	100%	0%
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	30,528,700.0	-	-	6,123,500.0	-	36,652,200.0	100%	0%
	Total	6,842,000.0	216,828,500.0	230,100,100.0	-	23,607,000.0	35,635,600.0	46,080,400.0	559,093,600.0	92%	8%
9 Korea	Government	-	-	12,989,217.0	4,366,765.0	-	-	4,842,624.0	22,198,606.0	78%	22%
	Other Public Sectors	-	-	34,238,441.0	7,688,510.0	-	-	327,471.0	42,254,422.0	99%	1%
	Banks	-	-	55,568,585.0	9,809,828.0	-	-	4,165,553.0	69,543,966.0	94%	6%
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	88,408,082.0	17,951,306.0	-	-	349,599.0	106,708,987.0	100%	0%
	Total	-	-	191,204,325.0	39,816,409.0	-	-	9,685,247.0	240,705,981.0	96%	4%
10 Malaysia	Government	418.0	5,656.0	14,231.0	50,411.0	-	-	1,666.0	72,382.0	98%	2%
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	955.0	773.0	17,250.0	10,457.0	11,717.0	320.0	-	41,472.0	100%	0%
	Other Financial Inst.	80.0	2,506.0	20,863.0	7,700.0	4,260.0	68.0	506.0	35,983.0	99%	1%
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	1,453.0	8,935.0	52,344.0	68,568.0	15,977.0	388.0	2,172.0	149,837.0	99%	1%
11 Mexico	Government	-	(6,648.8)	27,052.9	297,615.4	-	-	20,749.7	338,769.2	94%	6%
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-

Annex 5 (Q. 1.3): Holder of Local Currency Denominated Bonds as of End-August 1998 (Nominal Value; in Local Ccy Mn)

	Bond Issues	Held by Local						Held by Foreigners	Total	% Local	% Foreign
		Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Individuals				
	Banks	-	-	-	-	-	103,212.5	3,621.9	106,834.4	97%	3%
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	(6,648.8)	27,052.9	297,615.4	-	103,212.5	24,371.6	445,603.6	95%	5%
12 New Zealand	Government	132.0	4,083.0	3,542.0	7,316.0	13.0	741.0	13,251.0	29,078.0	54%	46%
	Other Public Sectors	-	-	1,260.0	2,521.0	-	-	-	3,781.0	100%	0%
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	132.0	4,083.0	4,802.0	9,837.0	13.0	741.0	13,251.0	32,859.0	60%	40%

Annex 5 (Q. 1.3): Holder of Local Currency Denominated Bonds as of End-August 1998 (Nominal Value; in Local Ccy Mn)

	Bond Issues	Held by Local						Held by Foreigners	Total	% Local	% Foreign
		Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Individuals				
13 Singapore	Government	-	-	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-
14 Chinese Taipei	Government	-	-	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-
15 Thailand	Government	-	16,156.2	63,679.9	16,243.0	116,150.1	-	-	212,229.2	100%	0%
	Other Public Sectors	-	-	127,199.9	39,597.2	26,220.0	85,801.1	-	278,818.2	100%	0%
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	16,156.2	190,879.8	55,840.2	142,370.1	85,801.1	-	491,047.4	100%	0%
16 USA (Jun 98)	Government	696,100.0	19,800.0	362,000.0	1,925,200.0	83,000.0	796,300.0	1,266,800.0	5,149,200.0	75%	25%
	Other Public Sectors	129,900.0	357,800.0	588,300.0	1,259,700.0	24,700.0	359,500.0	286,900.0	3,006,800.0	90%	10%
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	41,000.0	24,600.0	156,800.0	2,416,100.0	-	477,900.0	606,600.0	3,723,000.0	84%	16%
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	867,000.0	402,200.0	1,107,100.0	5,601,000.0	107,700.0	1,633,700.0	2,160,300.0	11,879,000.0	82%	18%

Annex 6 (Q. 1.3): Holder of Local Currency Denominated Bonds, as at End-August 1998 (Nominal Value in USD Mn)

	Bond Issues	Held by Local						Held by			
		Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Individuals	Foreigners	Total	% Local	% Foreign
1 Australia	Government	1,760.2	8,800.8	8,176.2	11,128.8	2,100.8	-	21,803.3	53,770.2	59%	41%
(Jun 98)	Other Public Sectors	-	4,712.7	3,406.8	12,605.0	567.8	-	113.6	21,405.9	99%	1%
	Banks	-	5,394.0	8,914.4	35,487.2	11,242.3	-	10,788.1	71,826.0	85%	15%
	Other Financial Inst.	-	1,078.8	567.8	6,927.1	170.3	-	1,816.9	10,561.0	83%	17%
	Corporations	-	511.0	2,044.1	18,510.1	2,725.4	-	-	23,790.6	100%	0%
	Total	1,760.2	20,497.4	23,109.2	84,658.2	16,806.7	-	34,521.9	181,353.6	81%	19%
2 Brunei	Government	-	-	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-
3 Canada	Government	-	-	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-
4 Chile	Government	-	-	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-
5 China	Government	-	-	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	181.2	96.6	-	-	-	277.8	100%	0%

Annex 6 (Q. 1.3): Holder of Local Currency Denominated Bonds, as at End-August 1998 (Nominal Value in USD Mn)

	Bond Issues	Held by Local						Held by			
		Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Individuals	Foreigners	Total	% Local	% Foreign
	Other Financial Inst.	-	-	100.2	474.6	96.6	24.2	-	695.7	100%	0%
	Corporations	-	-	-	250.0	2,370.8	12,689.4	-	15,310.1	100%	0%
	Total	-	-	281.4	821.3	2,467.4	12,713.5	-	16,283.6	100%	0%
6 Hong Kong	Government	3241.64	0.00	7736.28	579.62	1028.03	0.00	0.00	12585.56	100%	0%
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-

Annex 6 (Q. 1.3): Holder of Local Currency Denominated Bonds, as at End-August 1998 (Nominal Value in USD Mn)

	Bond Issues	Held by Local						Held by			
		Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Individuals	Foreigners	Total	% Local	% Foreign
7 Indonesia	Government	-	-	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-
8 Japan	Government	52,397.0	1,055,115.6	862,869.5	-	-	37,711.0	-	2,008,093.1	100%	0%
(Mar 97)	Other Public Sectors	-	605,387.5	358,386.4	-	180,785.7	31,443.6	352,890.2	1,528,893.4	77%	23%
	Banks	-	-	307,089.9	-	-	156,853.3	-	463,943.2	100%	0%
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	233,793.1	-	-	46,894.6	-	280,687.7	100%	0%
	Total	52,397.0	1,660,503.1	1,762,138.9	-	180,785.7	272,902.4	352,890.2	4,281,617.4	92%	8%
9 Korea	Government	-	-	9,621.6	3,234.6	-	-	3,587.1	16,443.4	78%	22%
	Other Public Sectors	-	-	25,361.8	5,695.2	-	-	242.6	31,299.6	99%	1%
	Banks	-	-	41,161.9	7,266.5	-	-	3,085.6	51,514.0	94%	6%
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	65,487.5	13,297.3	-	-	259.0	79,043.7	100%	0%
	Total	-	-	141,632.8	29,493.6	-	-	7,174.3	178,300.7	96%	4%
10 Malaysia	Government	100.1	1,354.7	3,408.6	12,074.5	-	-	399.0	17,337.0	98%	2%
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	228.7	185.1	4,131.7	2,504.7	2,806.5	76.6	-	9,933.4	100%	0%
	Other Financial Inst.	19.2	600.2	4,997.1	1,844.3	1,020.4	16.3	121.2	8,618.7	99%	1%
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	348.0	2,140.1	12,537.5	16,423.5	3,826.8	92.9	520.2	35,889.1	99%	1%
11 Mexico	Government	-	(667.6)	2,716.2	29,881.1	-	-	2,083.3	34,013.0	94%	6%
	Other Public Sectors	-	0.0	-	-	-	-	-	-	-	-

Annex 6 (Q. 1.3): Holder of Local Currency Denominated Bonds, as at End-August 1998 (Nominal Value in USD Mn)

	Bond Issues	Held by Local					Held by				
		Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Individuals	Foreigners	Total	% Local	% Foreign
	Banks	-	0.0	-	-	-	10,362.7	363.6	10,726.3	97%	3%
	Other Financial Inst.	-	0.0	-	-	-	-	-	-	-	-
	Corporations	-	0.0	-	-	-	-	-	-	-	-
	Total	-	(667.6)	2,716.2	29,881.1	-	10,362.7	2,446.9	44,739.3	95%	5%
12 New Zealand	Government	65.4	2,021.6	1,753.7	3,622.3	6.4	366.9	6,560.9	14,397.2	54%	46%
	Other Public Sectors	-	-	623.9	1,248.2	-	-	-	1,872.1	100%	0%
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	65.4	2,021.6	2,377.6	4,870.5	6.4	366.9	6,560.9	16,269.2	60%	40%

Annex 6 (Q. 1.3): Holder of Local Currency Denominated Bonds, as at End-August 1998 (Nominal Value in USD Mn)

	Bond Issues	Held by Local					Held by				
		Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Individuals	Foreigners	Total	% Local	% Foreign
13 Singapore	Government	-	-	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-
14 Chinese Taipei	Government	-	-	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-
15 Thailand	Government	-	387.0	1,525.3	389.1	2,782.0	-	-	5,083.3	100%	0%
	Other Public Sectors	-	-	3,046.7	948.4	628.0	2,055.1	-	6,678.3	100%	0%
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	-	387.0	4,572.0	1,337.5	3,410.1	2,055.1	-	11,761.6	100%	0%
16 USA	Government	696,100.0	19,800.0	362,000.0	1,925,200.0	83,000.0	796,300.0	1,266,800.0	5,149,200.0	75%	25%
(Jun 98)	Other Public Sectors	129,900.0	357,800.0	588,300.0	1,259,700.0	24,700.0	359,500.0	286,900.0	3,006,800.0	90%	10%
	Banks	-	-	-	-	-	-	-	-	-	-
	Other Financial Inst.	41,000.0	24,600.0	156,800.0	2,416,100.0	0.0	477,900.0	606,600.0	3,723,000.0	84%	16%
	Corporations	-	-	-	-	-	-	-	-	-	-
	Total	867,000.0	402,200.0	1,107,100.0	5,601,000.0	107,700.0	1,633,700.0	2,160,300.0	11,879,000.0	82%	18%
17 Total	Government	753,664.3	1,086,812.2	1,259,807.4	1,986,110.0	88,917.3	834,377.9	1,301,233.7	7,310,922.8	82%	18%
	Other Public Sectors	129,900.0	967,900.2	979,125.6	1,280,196.9	206,681.5	392,998.7	640,146.3	4,596,949.2	86%	14%

Annex 6 (Q. 1.3): Holder of Local Currency Denominated Bonds, as at End-August 1998 (Nominal Value in USD Mn)

Bond Issues		Held by Local						Held by			
		Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Individuals	Foreigners	Total	% Local	% Foreign
	Banks	228.7	5,579.2	361,479.1	45,355.0	14,048.8	167,292.6	14,237.3	608,220.8	98%	2%
	Other Financial Inst.	41,019.2	26,279.0	162,465.2	2,425,346.0	1,287.3	477,940.4	608,538.1	3,742,875.3	84%	16%
	Corporations	-	511.0	301,324.6	32,057.4	5,096.2	59,584.0	259.0	398,832.1	100%	0%
	Total	921,570.5	2,087,081.7	3,056,465.6	5,768,485.6	315,003.2	1,932,193.6	2,564,414.4	16,645,214.6	85%	15%

Annex 7 (Q. 1.4): Holder of Foreign Currency Denominated Bonds, as at End-August 1998 (Nominal Value in USD Mn)

	Bond Issues	Local							
		Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Individuals	Foreigners	Total
1 Australia (Jun 98)	Government	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-
2 Brunei Darussalam	Government	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-
3 Canada	Government	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-
4 Chile	Government	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-
	Total	-	-	1,227.8	492.1	-	-	-	1,719.9
5 China	Government	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-
6 Hong Kong	Government	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-

Annex 7 (Q. 1.4): Holder of Foreign Currency Denominated Bonds, as at End-August 1998 (Nominal Value in USD Mn)

Bond Issues		Local							
		Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Individuals	Foreigners	Total
	Total	-	-	-	-	-	-	-	-

Annex 7 (Q. 1.4): Holder of Foreign Currency Denominated Bonds, as at End-August 1998 (Nominal Value in USD Mn)

	Bond Issues	Local							
		Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Individuals	Foreigners	Total
7 Indonesia	Government	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-
8 Japan	Government	-	-	-	-	-	-	-	-
(Mar 97)	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-
9 Korea	Government	-	-	72.7	60.5	-	-	24.4	157.6
	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-
	Total	-	-	72.7	60.5	-	-	24.4	157.6
10 Malaysia	Government	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-
11 Mexico	Government	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-
12 New Zealand	Government	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-

Annex 7 (Q. 1.4): Holder of Foreign Currency Denominated Bonds, as at End-August 1998 (Nominal Value in USD Mn)

Bond Issues		Local							
		Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Individuals	Foreigners	Total
	Total	-	-	-	-	-	-	-	-

Annex 7 (Q. 1.4): Holder of Foreign Currency Denominated Bonds, as at End-August 1998 (Nominal Value in USD Mn)

	Bond Issues	Local							
		Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Individuals	Foreigners	Total
13 Singapore	Government	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-
14 Chinese Taipei	Government	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-
15 Thailand	Government	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-
16 USA (Jun 98)	Government	-	-	-	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-	-	-	-
	Banks	-	-	-	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-	-	-	-
	Corporations	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-

Annex 8 (Q. 1.5): Secondary Market Turnover for Local Currency Denominated Bonds (Figures in Local Ccy Mn)

		Total Turnover in Year				
		1995	1996	1997	Turnover in August 1998	Annualized
1 Australia	Government	2,151,267	2,309,573	2,631,149	429,285	5,151,420
	Other Public Sectors	800,212	484,488	434,743	40,618	487,416
	Banks	406,046	443,757	502,362	68,588	823,056
	Other Financial Inst.	-	-	-	-	-
	Corporations	143,839	180,519	267,250	-	-
	Total	3,501,364	3,418,337	3,835,504	538,491	6,461,892
					(June 98)	
2 Brunei Darussalam	Government	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-
	Banks	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-
	Corporations	-	-	-	-	-
	Total	-	-	-	-	-
3 Canada	Government	3,309,426	4,595,114	5,230,703	394,933	4,739,196
	Other Public Sectors	234,044	259,118	226,772	25,556	306,672
	Banks	12,871	12,494	22,186	2,401	28,812
	Other Financial Inst.	11,310	6,389	8,168	1,523	18,276
	Corporations	39,172	37,313	51,005	5,573	66,876
	Total	3,606,823	4,910,428	5,538,834	429,986	5,159,832
					(June 98)	
4 Chile	Government					-
	Other Public Sectors		10,517	9,646	10,949	131,382
	Banks		-	-	-	-
	Other Financial Inst.		-	-	-	-
	Corporations		58,137	62,155	41,863	502,360
	Total		68,654	71,801	52,812	633,742
5 China	Government	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-
	Banks	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-
	Corporations	-	-	-	-	-
	Total	-	-	-	-	-
6 Hong Kong	Government	4,212,530	4,063,680	4,043,970	159,060	1,908,720
	Other Public Sectors	-	-	-	-	-
	Banks	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-
	Corporations	-	-	-	-	-

Annex 8 (Q. 1.5): Secondary Market Turnover for Local Currency Denominated Bonds (Figures in Local Ccy Mn)

		Total Turnover in Year				
		1995	1996	1997	Turnover in August 1998	Annualized
	Total	-	-	-	-	-

Annex 8 (Q. 1.5): Secondary Market Turnover for Local Currency Denominated Bonds (Figures in Local Ccy Mn)

		Total Turnover in Year				
		1995	1996	1997	Turnover in August 1998	Annualized
7 Indonesia	Government					-
	Other Public Sectors					-
	Banks					-
	Other Financial Inst.					-
	Corporations					-
	Total					-
8 Japan	Government	3,894,530,200	3,081,272,400	3,280,857,000	230,776,500	2,769,318,000
	Other Public Sectors	29,617,600	24,284,000	26,297,600	1,813,400	21,760,800
	Banks	68,027,300	55,105,800	54,947,200	3,704,600	44,455,200
	Other Financial Inst.	-	-	-	-	-
	Corporations	20,240,900	23,400,800	24,871,900	2,345,500	28,146,000
	Total	4,012,416,000	3,184,063,000	3,386,973,700	238,640,000 (May 98)	2,863,680,000
9 Korea	Government	19,570,922	20,171,212	22,756,669	15,851,377	190,216,524
	Other Public Sectors	28,546,866	27,655,001	18,392,100	24,374,843	292,498,116
	Banks	-	-	-	-	-
	Other Financial Inst.	52,534,147	40,879,945	61,560,900	45,227,600	542,731,200
	Corporations	122,331,494	141,580,393	136,831,602	204,726,472	2,456,717,664
	Total	222,983,429	230,286,551	239,541,271	290,180,292	3,482,163,504
10 Malaysia	Government	7,611	28,216	16,686	11,915	17,872.50
	Other Public Sectors	12,384	14,110	12,394	-	-
	Banks	-	-	-	-	-
	Other Financial Inst.	118,263	139,969	156,818	90,604	135,906.00
	Corporations	-	-	-	-	-
	Total	138,258	182,295	185,898	102,519 (Jan - Aug 98)	153,778.50
11 Mexico	Government	-	-	-	1,462,013	1,462,013
	Other Public Sectors	-	-	-	-	-
	Banks	-	-	-	2,844,213	2,844,213
	Other Financial Inst.	-	-	-	-	-
	Corporations	-	-	-	-	-
	Total	-	-	-	4,306,226 (Aug 97 - Aug 98)	4,306,226
12 New Zealand	Government	-	227,158	298,552	29,755	357,060
	Other Public Sectors	-	-	-	-	-
	Banks	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-
	Corporations	-	-	-	-	-

Annex 8 (Q. 1.5): Secondary Market Turnover for Local Currency Denominated Bonds (Figures in Local Ccy Mn)

		Total Turnover in Year				
		1995	1996	1997	Turnover in August 1998	Annualized
	Total	-	227,158	298,552	29,755	357,060

Annex 8 (Q. 1.5): Secondary Market Turnover for Local Currency Denominated Bonds (Figures in Local Ccy Mn)

		Total Turnover in Year				
		1995	1996	1997	Turnover in August 1998	Annualized
13 Singapore	Government	98,980	108,290	130,830	18,276	219,311
	Other Public Sectors	-	-	-	-	-
	Banks	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-
	Corporations	-	-	-	-	-
	Total	98,980	108,290	130,830	18,276	219,311
14 Chinese Taipei	Government	1,767,472	2,593,096	2,517,709	758,564	9,102,768
	Other Public Sectors	-	-	-	-	-
	Banks	-	-	-	-	-
	Other Financial Inst.	2,318	4,634	26,222	15,956	191,472
	Corporations	2,747	24,073	27,063	4,818	57,816
	Total	1,772,537	2,621,803	2,570,994	779,338	9,352,056
15 Thailand	Government	-	-	-	7,290	87,476
	Other Public Sectors	931	4,833	15,235	14,381	172,567
	Banks	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-
	Corporations	50,597	195,775	90,955	4,091	49,088
	Total	51,528	200,608	106,190	25,761	309,132
16 USA	Government	-	-	-	-	-
	Other Public Sectors	-	-	-	-	-
	Banks	-	-	-	-	-
	Other Financial Inst.	-	-	-	-	-
	Corporations	-	-	-	-	-
	Total	-	-	-	-	-

Annex 9 (Q. 1.5): Secondary Market for Local Currency Denominated Bonds (Figures in USD Mn)

		Total Turnover in Year			
		1995	1996	1997	Turnover in August 1998
1 Australia	Government	1,597,910.57	1,834,013.34	1,711,093.84	243,745.74
	Other Public Sectors	594,378.67	384,728.02	282,722.90	23,062.68
	Banks	301,601.43	352,383.86	326,697.02	38,943.90
	Other Financial Inst.	-	-	-	-
	Corporations	106,840.23	143,348.69	173,798.53	-
	Total	2,600,730.89	2,714,473.91	2,494,312.28	305,752.33
2 Brunei Darussalam	Government	-	-	-	-
	Other Public Sectors	-	-	-	-
	Banks	-	-	-	-
	Other Financial Inst.	-	-	-	-
	Corporations	-	-	-	-
	Total	-	-	-	-
3 Canada	Government	2,425,376.33	3,352,874.13	3,658,857.72	252,031.27
	Other Public Sectors	171,523.64	189,068.22	158,626.19	16,308.87
	Banks	9,432.76	9,116.38	15,519.03	1,532.23
	Other Financial Inst.	8,288.75	4,661.80	5,713.49	971.92
	Corporations	28,707.95	27,225.83	35,677.81	3,556.48
	Total	2,643,329.42	3,582,946.37	3,874,394.24	274,400.77
4 Chile	Government	-	-	-	-
	Other Public Sectors	-	25	22	23
	Banks	-	-	-	-
	Other Financial Inst.	-	-	-	-
	Corporations	-	137	141	88
	Total	-	162	163	112 (Sept 98)
5 China	Government	-	-	-	-
	Other Public Sectors	-	-	-	-
	Banks	-	-	-	-
	Other Financial Inst.	-	-	-	-
	Corporations	-	-	-	-
	Total	-	-	-	-
6 Hong Kong	Government	544,817.64	525,294.73	522,072.04	20,542.43
	Other Public Sectors	-	-	-	-
	Banks	-	-	-	-
	Other Financial Inst.	-	-	-	-
	Corporations	-	-	-	-

Annex 9 (Q. 1.5): Secondary Market for Local Currency Denominated Bonds (Figures in USD Mn)

		Total Turnover in Year			
		1995	1996	1997	Turnover in August 1998
	Total	-	-	-	-

Annex 9 (Q. 1.5): Secondary Market for Local Currency Denominated Bonds (Figures in USD Mn)

		Total Turnover in Year			
		1995	1996	1997	Turnover in August 1998
7 Indonesia	Government				
	Other Public Sectors				
	Banks				
	Other Financial Inst.				
	Corporations				
	Total				
8 Japan	Government	37,624,676	26,631,568	25,125,264	1,656,687
	Other Public Sectors	286,133	209,888	201,391	13,018
	Banks	657,205	476,282	420,793	26,594
	Other Financial Inst.	-	-	-	-
	Corporations	195,545	202,254	190,473	16,838
	Total	38,763,559	27,519,991	25,937,921	1,713,137 (May 1998)
9 Korea	Government	25,410.18	23,987.65	14,222.92	11,741.76
	Other Public Sectors	37,064.22	32,887.38	11,495.06	18,055.44
	Banks	-	-	-	-
	Other Financial Inst.	68,208.45	48,614.51	38,475.56	33,501.93
	Corporations	158,830.82	168,367.69	85,519.75	151,649.24
	Total	289,513.67	273,857.24	149,713.29	214,948.36
10 Malaysia	Government	2,996.81	11,174.65	4,306.06	2,853.89
	Other Public Sectors	4,876.17	5,588.12	3,198.45	-
	Banks	-	-	-	-
	Other Financial Inst.	46,565.74	55,433.27	40,469.16	21,701.56
	Corporations	-	-	-	-
	Total	54,438.71	72,196.04	47,973.68	24,555.45 (Jan-Aug 1998)
11 Mexico	Government	-	-	-	146,788.45
	Other Public Sectors	-	-	-	-
	Banks	-	-	-	285,563.55
	Other Financial Inst.	-	-	-	-
	Corporations	-	-	-	-
	Total	-	-	-	432,352.01 Aug 97 - Aug 98

Annex 9 (Q. 1.5): Secondary Market for Local Currency Denominated Bonds (Figures in USD Mn)

		Total Turnover in Year			
		1995	1996	1997	Turnover in August 1998
12 New Zealand	Government	-	160,535.69	173,586.84	14,732.39
	Other Public Sectors	-	-	-	-
	Banks	-	-	-	-
	Other Financial Inst.	-	-	-	-
	Corporations	-	-	-	-
	Total	-	160,535.69	173,586.84	14,732.39
13 Singapore	Government	69,985.15	77,388.69	77,967.82	10,298.02
	Other Public Sectors	-	-	-	-
	Banks	-	-	-	-
	Other Financial Inst.	-	-	-	-
	Corporations	-	-	-	-
	Total	69,985.15	77,388.69	77,967.82	10,298.02
14 Chinese Taipei	Government	64,775.78	94,335.56	77,348.97	21,807.22
	Other Public Sectors	-	-	-	-
	Banks	-	-	-	-
	Other Financial Inst.	84.95	168.58	805.59	458.70
	Corporations	100.67	875.76	831.43	138.51
	Total	64,961.41	95,379.91	78,985.99	22,404.43
15 Thailand	Government	-	-	-	174.60
	Other Public Sectors	36.97	188.41	324.16	344.45
	Banks	-	-	-	-
	Other Financial Inst.	-	-	-	-
	Corporations	2,008.62	7,632.55	1,935.21	97.98
	Total	2,045.59	7,820.96	2,259.36	617.03
16 USA	Government	-	-	-	-
	Other Public Sectors	-	-	-	-
	Banks	-	-	-	-
	Other Financial Inst.	-	-	-	-
	Corporations	-	-	-	-
	Total	-	-	-	-
17 Total	Government	42,355,948.34	32,711,172.30	31,364,720.42	2,381,402.78
(16 members)	Other Public Sectors	1,094,012.40	822,372.55	657,779.41	70,812.51
	Banks	968,239.29	837,782.01	763,009.42	352,634.08
	Other Financial Inst.	123,147.89	108,878.17	85,463.80	56,634.11
	Corporations	492,033.65	549,841.46	488,376.60	172,368.37

Annex 9 (Q. 1.5): Secondary Market for Local Currency Denominated Bonds (Figures in USD Mn)

		Total Turnover in Year			
		1995	1996	1997	Turnover in August 1998
	Total	44,488,563.93	34,504,751.76	32,837,277.61	3,013,309.42

Annex 10 (Q. 3.1): Does your government or other public sector have plans to issue bonds in the coming 5 years to finance short-term funding needs or long-term investment projects?

			Local Currency Bonds (in Mn)		Foreign Currency Bonds (in US$ Mn)	
			Government	Other Public Sector	Government	Other Public Sector
1 Australia	No	can't comment on issuance plans for the remainder of the public sector				
	1998-1999		4000 to 5000	0	0	0
	2000		0	0	0	0
	2001		0	0	0	0
	2002		0	0	0	0
	Total		4000 to 5000	0	0	0
2 Brunei Darussalam	No					
3 Canada	Yes	have plans to issue but don't make public the issuing plans				
4 Chile	No					
5 China	Yes	have plans to issue but amount will depends on government borrowing requirement				
6 Hong Kong	No	but bills and notes will be issued to maintain yield curves				
7 Indonesia	No					
8 Japan	No		0	0	0	0
9 Korea	Yes	have plans to issue	0	0	0	0
	Sep-98		15	45	0	0
	1999		0	0	0	0
	2000		0	0	0	0
	2001		0	0	0	0

Annex 10 (Q. 3.1): Does your government or other public sector have plans to issue bonds in the coming 5 years to finance short-term funding needs or long-term investment projects?

			Local Currency Bonds (in Mn)		Foreign Currency Bonds (in US$ Mn)	
			Government	Other Public Sector	Government	Other Public Sector
	2002		0	0	0	0
	Total		15	45	0	0

Annex 10 (Q. 3.1): Does your government or other public sector have plans to issue bonds in the coming 5 years to finance short-term funding needs or long-term investment projects?

			Local Currency Bonds (in Mn)		Foreign Currency Bonds (in US$ Mn)	
			Government	Other Public Sector	Government	Other Public Sector
10 Malaysia	Yes	but data is not available as it would depend on the financing needs of the government and the development of the bond market	0	0	0	0
11 Mexico	Yes	have plans to issue	0	0	0	0
12 New Zealand	Yes	information is announced only before the fiscal year and the proceeds are not ear-marked for any particular purpose	14100	7280	0	0
	1998		0	0	0	0
	1999		0	0	0	0
	2000		0	0	0	0
	2001		0	0	0	0
	2002		0	0	0	0
	Total		14100	7280	0	0
13 Singapore	Yes	have plans to issue	0	0	0	0
14 Chinese Taipei	Yes	have plans to issue				
	1998		around 120,000	0	0	0
	1999		at least 60,000	0	0	0
	2000		0	0	0	0
	2001		0	0	0	0
	2002		0	0	0	0
	Total		around 180,000	0	0	0

Annex 10 (Q. 3.1): Does your government or other public sector have plans to issue bonds in the coming 5 years to finance short-term funding needs or long-term investment projects?

			Local Currency Bonds (in Mn)		Foreign Currency Bonds (in US$ Mn)	
			Government	Other Public Sector	Government	Other Public Sector
15 Thailand	Yes	have plans to issue bonds for Financial Institution Development Fund				
	1998		500,000	0	0	300
	1999		0	0	0	0
	2000		0	0	0	0
	2001		0	0	0	0
	2002		0	0	0	0
	Total		500,000	0	0	300
16 USA	No	reduction of debt instead				
	1998		-24400	0	0	0
	1999		-32600	0	0	0
	2000		-47700	0	0	0
	2001		-67900	0	0	0
	2002		-134000	0	0	0
	Total		-306600	0	0	0

Annex 11: Questionnaire on Developing Domestic Bond Markets

APEC

Collaborative Initiative on Developing Domestic Bond Markets

A Survey

Prepared by Hong Kong Monetary Authority
31 August 1998

Introduction

At the APEC Finance Ministers Meeting held on 23-24 May 1998 in Kannanaski, Canada, the Finance Ministers agreed to begin work on a new collaborative initiative on the development of domestic bond markets in the region. Hong Kong, China has agreed to co-ordinate this initiative.

This questionnaire aims to review systematically the current state of bond markets in APEC member economies, the potential for development and the areas of growth for domestic bond markets. It also surveys the need to enhance the financial infrastructure to facilitate the development of domestic bond markets. The questionnaire is sent to all APEC member economies.

It is acknowledged that different economies may have different models or approaches towards domestic bond markets, and efforts have been made to ensure that the questionnaire would suit the various domestic bond markets environments within APEC economies.

Information collected in this survey will be analyzed and used as a basis for discussion at a meeting to be held around end-December in Hong Kong. The findings will be incorporated into a report on the collaborative initiative on developing domestic bond markets, which will be submitted to the APEC Finance Ministers' Working Group at the February 1999 Meeting.

Instructions for Completing the Questionnaire

1. This questionnaire consists of five parts.

2. Please answer all questions that are applicable to your economy.

3. You may cross-refer information given elsewhere in the response if this is helpful in avoiding duplication.

4. As a supplement to a response or to further clarify your answers, please attach a copy of the relevant rules and regulations, if necessary.

5. All information and data submitted will be used solely by the APEC Finance Ministers' Working Group for a study on domestic bond markets in the region.

Submission of Answers

We would appreciate if you could complete the questionnaire and return it to:

Mr Francis Lau
Head of External Relations
External Department
Hong Kong Monetary Authority
30th Floor
3 Garden Road
Hong Kong
Fax No: (852) 2878 8269)

We hope to receive your response by **30 September 1998**.

Further information

If you have any questions or if you need further clarification with regard to the questionnaire, please contact the following persons at the Hong Kong Monetary Authority:

Mr Francis Lau
Head of External Relations
External Department
Tel: (852) 28788173
Fax: (852) 2878 8269
E-mail: Francis_ST_Lau@hkma.gov.hk

Part I Overview of Domestic Bond Markets

This part aims to review the current positions of domestic bond markets in the region, including bonds issued by the public and private sector, denominated in local currencies and foreign currencies.

1.1 Bonds Denominated in Local Currency (Nominal Value; in Mn)

	Public Sector Bonds issued by		Private Sector Bonds issued by			
Amount outstanding as at	Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Total
End-1995						
End-1996						
End-1997						
End-8/98						

1.2 Bonds Denominated in Foreign Currency (Nominal value; in US$ Mn)

	Public Sector Bonds Issued By		Private Sector Bonds Issued By			
Amount outstanding as at	Government	Other Public Sector	Banks	Other Financial Institutions	Corporations	Total
End-1995						
End-1996						
End-1997						
End-8/98						

Note: (1) "Bonds" include all fixed or floating rate debt securities, including debentures, bonds, bills, notes, certificates of deposits, and asset backed securities (debt securities collateralised by pools of mortgage receivables).

(2) "Government" includes federal, state and provincial governments.

(3) "Other Public Sector" includes government agencies and institutions or enterprises owned by government or whose debts are guaranteed by government.

(4) "Other Financial Institutions" are non-bank institutions, including deposit-taking, finance, insurance and securities companies, and institutional investors, such as pension funds and unit trusts.

(5) Please provide details if the public sector bonds are issued under a program.

1.3 Holder of Local Currency Denominated Bonds as at End-August 1998 (Nominal Value in Mn)

Bonds Issued By:	Local						Foreigners	Total
	Government	Other Public Sector	Banks	Other Financial Institutions	Corpor-ations	Individuals		
Government								
Other public Sector								
Banks								
Other Financial Institutions								
Corporations								
Total								

1.4 Holder of Foreign Currency Denominated Bonds as at End-August 1998 (Nominal Value in US$ Mn)

Bonds Issued By:	Local						Foreigners	Total
	Government	Other Public Sector	Banks	Other Financial Institutions	Corpor-ations	Individuals		
Government								
Other public Sector								
Banks								
Other Financial Institutions								
Corporations								
Total								

1.5 Secondary Market for Local Currency Denominated Bonds (Value in Mn)

Bonds Issued By:	Total Turnover in Year			Turnover in August 1998
	1995	1996	1997	
Government				
Other Public Sector				
Banks				
Other Financial Institutions				
Corporations				
Total				

1.5.1 What do you believe are the reasons leading to inactive and illiquid secondary markets for Asian domestic bonds (you can tick more than one reason from below)?

- ☐ Lack of reliable benchmark yield curves
- ☐ Lack of local institutional investors
- ☐ Small issue sizes
- ☐ Wide buy/sell spreads
- ☐ Relatively long settlement periods
- ☐ Under-developed securities trading system
- ☐ Others (please specify): _____.
  _____.

1.5.2 Any suggestions on the ways to improve the secondary market liquidity of the domestic bond markets?

_____.
_____.
_____.
_____.
_____.
_____.

Part II Developing Financial Market Infrastructure

2.1 Has your economy implemented Real Time Gross Settlement (RTGS) for interbank payments?

- ☐ Yes, implemented since ____ (month/year).
- ☐ Not yet.
  - ☐ But, we have plan to implement RTGS in ____ (year).
  - ☐ We currently have no plan to implement RTGS.

2.2 Is your payment system linked to the payment systems of other economies?

- ☐ Yes, our system is linked to the system of –
  _____ (economy).
- ☐ No, we are currently not linked to other systems.
  - ☐ But, we are considering establishing bilateral linkages in the near future.
  - ☐ We have no plan to do so in the near future.

2.3 Is there a securities clearing, settlement and custody system in your economy?

- ☐ Yes, it is for clearing and settling -
  - ☐ local currency denominated bonds.
  - ☐ foreign currency denominated bonds.
  - ☐ stocks.
- ☐ No, we do not have such system.

2.4 If your answer to Question 2.2 is yes, is the system linked to the system of other economies?

- ☐ Yes, our system is linked to the system of –
  _____ (economy).
- ☐ No, we are currently not linked to other systems.
  - ☐ But, we are considering establishing bilateral linkages in the near future.
  - ☐ We have no plan to do so in the near future.

2.5 Any views on the development of market infrastructure, domestically and regionally?

(a) in respect of securities clearing, settlement and custody system, and bilateral linkages of these systems between APEC member economies

_____.
_____.
_____.
_____.
_____.

(b) in respect of RTGS, and bilateral payment linkages of payment systems between APEC member economies

_____.
_____.
_____.
_____.
_____.

(c) in respect of other market infrastructure

_____.
_____.
_____.
_____.
_____.

Part III Supply of and Demand for Asian Domestic Bonds

3.1 Does your government or other public sector have plans to issue bonds in the coming 5 years to finance short-term funding needs or long-term investment projects?

- ☐ No, we do not have such plans.
- ☐ Yes, we have plans to issue -

Year	Local Currency Bonds (in Mn)		Foreign Currency Bonds (in US$ Mn)	
	Government	Other Public Sector	Government	Other Public Sector
1998				
1999				
2000				
2001				
2002				
Total				

3.2 Given your investment guidelines, can you invest in bonds issued by other Asian governments? What is the maximum amount that your government or the public sector can invest in the bonds, and up to what maturity?

- ☐ We cannot invest in bonds issued by Asian governments.
- ☐ We can invest in bonds issued or guaranteed by governments with a long-term foreign currency sovereign rating of __ from Moody's. The maximum amount is US$ _____ mn. We can invest up to ___ years.

3.3 Can your government or the other public sector invest in credit enhanced bonds issued by Asian economies of lower ratings in the form of guarantees either from the economies with higher public credit ratings or from the Multilateral Development Banks?

- ☐ Yes, we can invest in such credit enhanced Asian bonds.
- ☐ No, we cannot invest in such credit enhanced Asian bonds.

3.4 Do you have an estimate on the demand for Asian bonds from your private sector (including banks, other financial institutions, corporations and individuals)?

- ☐ Yes, the estimate is US$ _____ mn.
- ☐ No, we do not have the estimate.

3.5 Any suggestions on the ways to increase the supply of and demand for Asian bonds?

_____.
_____.
_____.
_____.
_____.
_____.

Part IV Benchmark Yield Curve

4.1 Is there a benchmark government yield curve in your economy?

- ☐ No, we do not have a government yield curve.
- ☐ Yes, we have a government yield curve.
  It is built up to _____ years.

4.2 If your answer to Question 4.1 is yes, are bonds issued regularly to maintain the accuracy and reliability of the curve?

- ☐ Bonds are issued regularly to maintain the accuracy and reliability of the yield curve.
- ☐ Bonds are issued on an ad hoc basis.

4.3 Is there any plan to extend the yield curve?

- ☐ We plan to extend the yield curve to ____ years.
- ☐ We currently have no plan to further extend the yield curve.

4.4 If your answer to Question 4.1 is no, does your government has a plan to build a government benchmark yield curve in the near future?

- ☐ Yes, we have plans to build a benchmark yield curve.
- ☐ No, we do not have such plan.

Part V Regulatory Framework for the Issuance and Investment in Bonds

5.1 Which authority/government department/agency is overseeing the issuance and investment in bonds?

- The authority overseeing the issuance of bonds is _____.
- The authority overseeing the investment of bonds is _____.

5.2 What is the legal basis (e.g. Law, Legislation, Ordinance, etc) under which the authority(ies) is empowered to oversee the issuance and/or investment of bonds? Are they governed under one legislation or under various legislations?

- For issuance of bonds: _____.
- For investment of bonds:_____.

5.3 Please describe briefly the responsibility of the authority(ies) in overseeing the issuance and investment of bonds.

_____.
_____.
_____.
_____.
_____.
_____.

5.4 Under your economy's legal system, what recourse will an investor in bonds have if the bond issuer defaults in paying the interest on the bonds or in repaying the principal on maturity?

_____.
_____.
_____.
_____.
_____.
_____.

5.5 What role does the central bank play in respect of overseeing the issuance and investment of bonds?

_____.
_____.
_____.
_____.
_____.
_____.

5.6 Are there any legal barriers restricting the development of domestic bond market, if so, what are they?

_____.
_____.
_____.
_____.
_____.
_____.

5.7 Any views on the ways to promote a clear and fair regulatory framework regarding the issuance and investment in Asian domestic bonds?

_____.
_____.
_____.
_____.
_____.
_____.

-- End of Questionnaire --