

Survey Result on
Corporate and Government Bond Markets in
the Asia Pacific Region

April 2005

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EXECUTIVE SUMMARY

The Asia Pacific Regional Committee (“APRC”) of the International Organization of Securities Commissions in February 2004 gave a mandate to the Financial Services Agency of Japan and the Securities and Exchange Commission of Thailand to study current development of domestic bond markets in member jurisdictions. It is expected that the results of the study will provide useful information for further development of both domestic and regional bond markets in the Asia Pacific. This paper is prepared to report the study results.

The study reveals that issuance regulatory framework for corporate and government bonds are varied. Though all jurisdictions have their securities regulators responsible for corporate bond issuance, some use the commercial law as their governing law while some use the securities law. In addition, most jurisdictions seem to move from merit-based to disclosure-based approach in which regulatory focuses are the full disclosure of material information and the eligibility of the issuers. On the contrary, in most jurisdictions, the central bank and/or the ministry of finance are responsible for the issuance of government bonds with the system of multiple governing laws in place.

Similar to the issuance regulatory framework in the primary market, securities regulators in all jurisdictions oversee the secondary market for corporate bonds; whilst some jurisdictions have securities regulators accompanied with central banks oversee secondary markets for government bonds. Additionally, various jurisdictions also have self-regulatory organisations playing significant roles in promoting best market practices, executing disciplinary actions, and acting as bond information centres.

There are secondary trading facilities available for corporate and government bonds both on exchanges and alternative trading systems in all jurisdictions. However, the majority of trades occur in the over-the-counter (OTC) market. In addition, some jurisdictions arrange particular systems for corporate bond trading.

Regarding market intermediaries, most jurisdictions have a system of single licence which accommodates all brokerage/dealing and underwriting businesses. The licensing requirements usually focus on capital adequacy, capacity to carry out the business, and fits and proper of management. Also, the systems of primary dealers and of inter-dealer brokers exist in several jurisdictions to help enhance market liquidity and to facilitate trades among dealers respectively.

All jurisdictions impose listing requirements for corporate bonds to be traded on exchanges. On the contrary, most jurisdictions grant a waiver from compliance with listing rules for government bonds.

Bond settlement systems depend on the trading place: on exchanges or in OTC markets. For all bonds traded on exchanges, the settlement system is multi-lateral netting with a clearinghouse acting as central counterparty for all trades. In OTC markets, government bonds are usually settled on a delivery versus payment, real time trade-by-trade basis, through central banks’ infrastructures whilst the settlement of corporate bonds in some OTC markets still occurs through the delivery of physical certificates.

In most jurisdictions, the levels of accessibility to trade information differ between those of market intermediaries and general public, especially for bonds traded in OTC markets where subscribers of alternative trading systems and information providers are permitted the accessibility to more information on specific bond issues.

All jurisdictions have their own accounting and auditing standards applied to corporate bonds issuers. However, some jurisdictions provide flexibility in which an international standard is either conditionally or unconditionally accepted.

Lastly, several jurisdictions have impediments in the forms of transaction tax and stamp duty, which hinder transactions in the bonds markets. On the other hand, some jurisdictions have used taxation policy as investment incentives.

In conclusion, domestic bond markets in the region are in different development stages. Some are more advanced than others. However, there is still a large room for every single market to be further developed till each market can function effectively. To do so, the proper identification and prioritisation of necessary measures to put in place by each market are of essence to achieve effective results. More importantly, strong regional cooperation through sharing of information and experiences, and technical assistance given to less developed markets would help shorten the development period each of those markets may take on its own naturally.

I. INTRODUCTION

Background

Development of effective domestic bond markets in the Asia Pacific region has been realised as an urgent and important task since the Asian financial crisis in 1997. It is analysed that effective domestic bond markets could function as cushion to prevent the shock resulting from a huge amount of money outflows. In addition, domestic bond markets could provide alternatives for investment and fund raising to those in needs. Moreover, these markets could also provide means for monetary policy operations by central banks.

In February 2004, securities regulators under the Asia Pacific Regional Committee (“APRC”) of the IOSCO met together in Wellington, New Zealand. At that meeting, the Asian bond market initiatives were discussed. All recognised that bond market situations and conditions in other jurisdictions in the region were not known well, as a result, an agreement to conduct a survey for both domestic corporate and government bond markets was reached.

Questionnaire and Answers

The Financial Services Agency of Japan and the Securities and Exchange Commission of Thailand prepared a questionnaire for the survey with the assistance of the Monetary Authority of Singapore and the Securities Commission of Malaysia. The questionnaire, consisting of 34 questions in asking for both quantitative and qualitative information, was circulated to member jurisdictions where bond markets exist. There are responses from 13 jurisdictions¹.

| | |
|-----------------|--|
| China: | China Securities Regulatory Commission |
| Chinese Taipei | Financial Supervisory Commission |
| Hong Kong: | Securities and Futures Commission |
| Indonesia: | Indonesian Capital Market Supervisory Agency (Bapepam) |
| Japan: | Financial Services Agency |
| Korea: | Financial Supervisory Service |
| Malaysia: | Securities Commission |
| New Zealand: | Securities Commission |
| Pakistan | Securities and Exchange Commission of Pakistan |
| The Philippines | Securities and Exchange Commission |
| Singapore: | Monetary Authority of Singapore |
| Sri Lanka: | Securities and Exchange Commission of Sri Lanka |
| Thailand: | Securities and Exchange Commission |

Survey Result

Since answers from each jurisdiction are very informative, covering each topic in detail, this finding paper therefore attempts to provide a summary together with charts, of significant matters. Though the summary was initially planed for the corporate bond market and the government bond market separately, the answers from the survey reveal common features of both markets in various aspects. As such, a single paper was prepared with highlights on particular topics.

¹ For limitation on information provided, see Note 1 on page 43.

II. PRIMARY MARKET

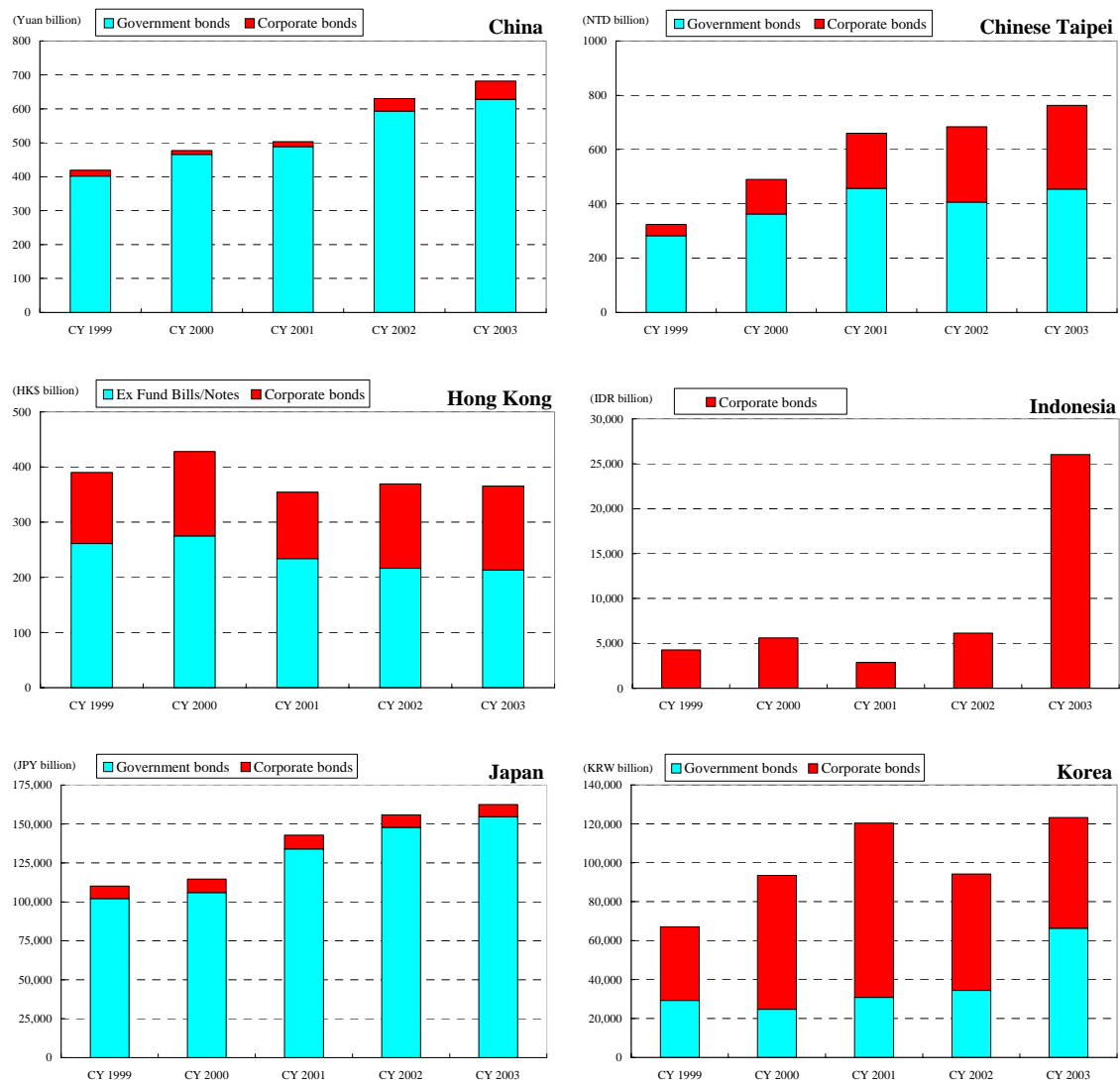
1. Primary Market at a Glance

Issue Amounts

Here are charts indicating the issue amount of corporate² and government bonds³ in each jurisdiction in local currencies for the past five years.

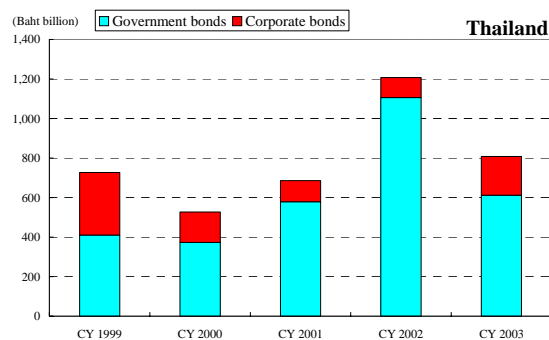
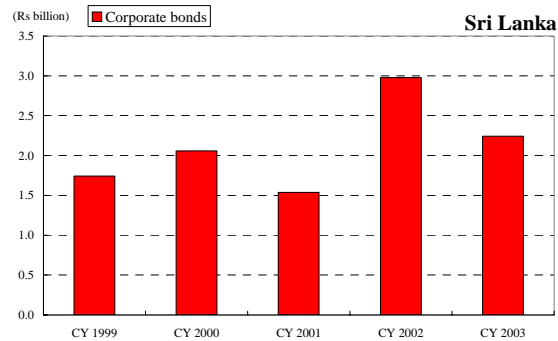
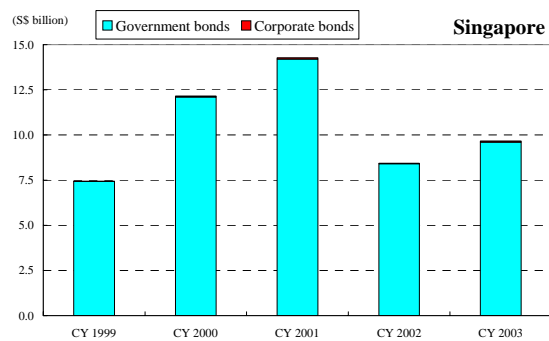
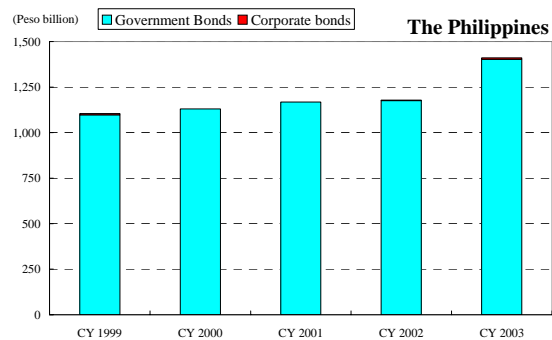
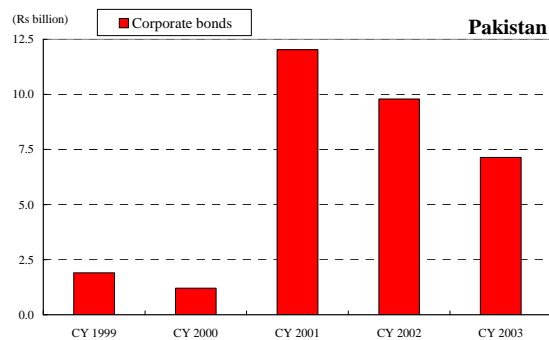
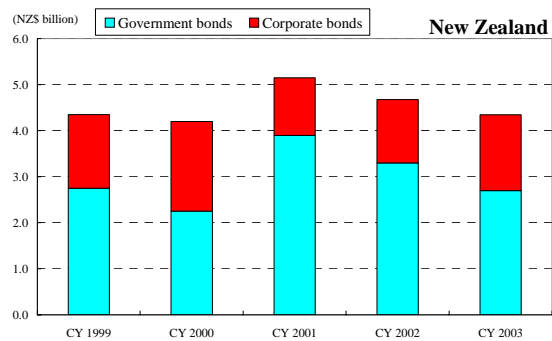
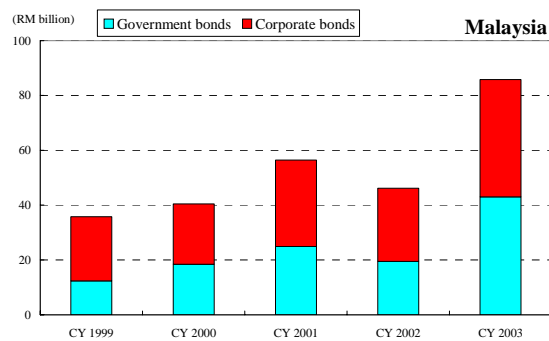
In general, the issue amounts increased in many jurisdictions for the past five years.

[Chart 1] Issue amounts



² For description of corporate bonds, see Note 2 on page 43.

³ The data of Exchange Fund Bills/Notes are used as the one of government bonds in Charts 1 and 2, and Tables 1 and 2, but, strictly speaking, it is not treated as the government bonds in Hong Kong. See also page 14.



Here is the table of the issue amounts (aggregated amounts of figures provided by each regulator) converted into US dollars⁴; this is just for a benefit of comparison.

⁴ The yearly average exchange rate at the time is used for conversion.

[Table 1] Issue amounts in US dollar

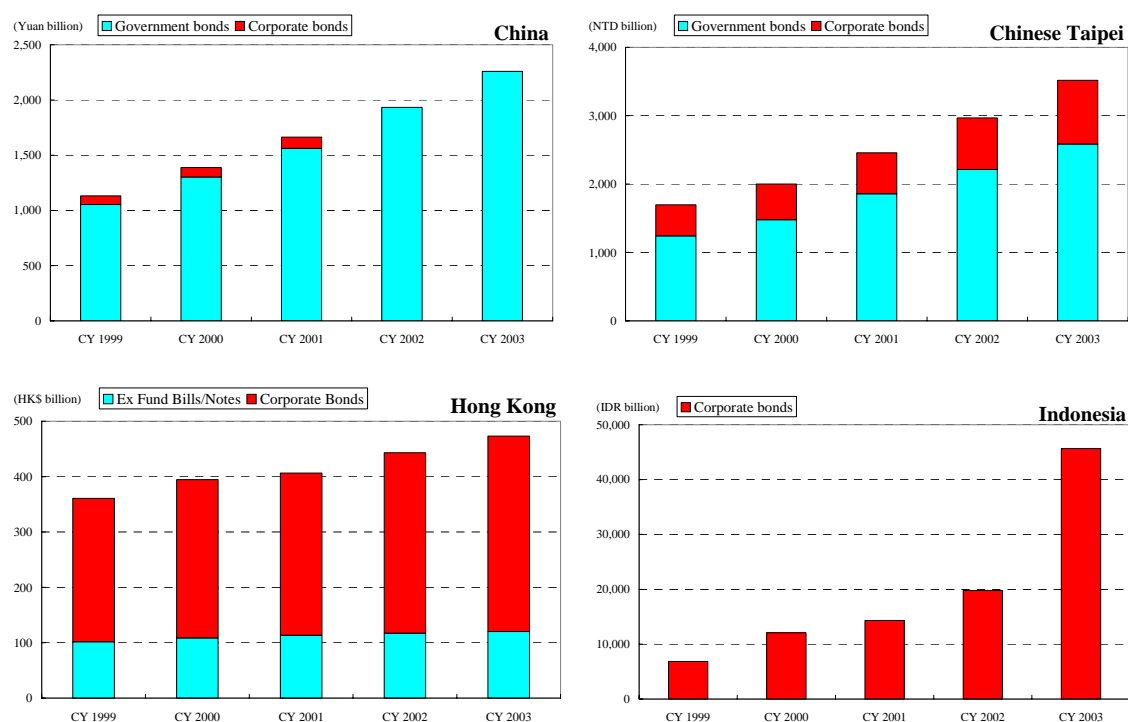
(Unit: USD million)

| Jurisdiction | Corporate bonds | | | | | Government bonds | | | | |
|-----------------|-----------------|--------|--------|--------|--------|------------------|---------|-----------|-----------|-----------|
| | CY1999 | CY2000 | CY2001 | CY2002 | CY2003 | CY1999 | CY2000 | CY2001 | CY2002 | CY2003 |
| China | 2,090 | 1,353 | 1,776 | 4,434 | 6,512 | 48,500 | 56,255 | 59,007 | 71,693 | 75,873 |
| Chinese Taipei | 1,274 | 4,086 | 6,009 | 8,037 | 7,993 | 8,769 | 11,605 | 13,517 | 11,765 | 1,274 |
| Hong Kong | 16,604 | 19,633 | 15,422 | 19,660 | 19,499 | 33,702 | 35,300 | 30,000 | 27,726 | 27,387 |
| Indonesia | 2,656 | 8,598 | 2,236 | 6,441 | 3,081 | - | - | - | - | - |
| Japan | 70,459 | 79,345 | 72,887 | 63,929 | 67,155 | 895,887 | 983,540 | 1,102,365 | 1,178,977 | 1,334,309 |
| Korea | 31,745 | 60,846 | 69,297 | 47,790 | 47,698 | 24,657 | 21,837 | 23,913 | 27,559 | 55,676 |
| Malaysia | 2,656 | 8,598 | 2,236 | 6,441 | 3,081 | 32,521 | 47,462 | 38,501 | 42,721 | 47,143 |
| New Zealand | 847 | 892 | 526 | 638 | 957 | 1,456 | 1,029 | 1,641 | 1,532 | 1,571 |
| Pakistan | 38 | 23 | 194 | 164 | 124 | - | - | - | - | - |
| The Philippines | 177 | N.A. | N.A. | 58 | 140 | 28,089 | 25,569 | 22,905 | 22,788 | 25,882 |
| Singapore | 12 | 29 | 40 | 21 | 39 | 4,384 | 7,019 | 7,925 | 4,691 | 5,510 |
| Sri Lanka | 24 | 25 | 17 | 31 | 23 | - | - | - | - | - |
| Thailand | 8,385 | 3,852 | 2,399 | 2,350 | 4,731 | 10,830 | 9,278 | 13,023 | 25,723 | 14,733 |

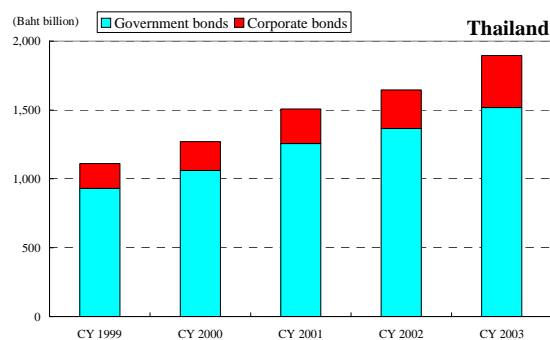
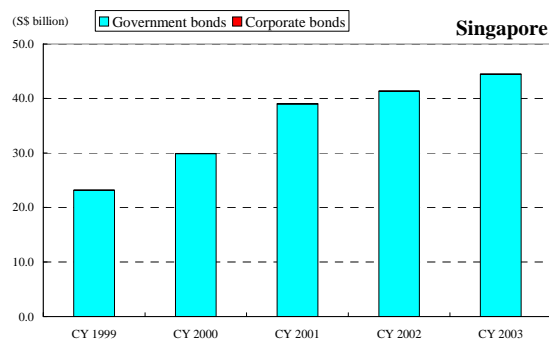
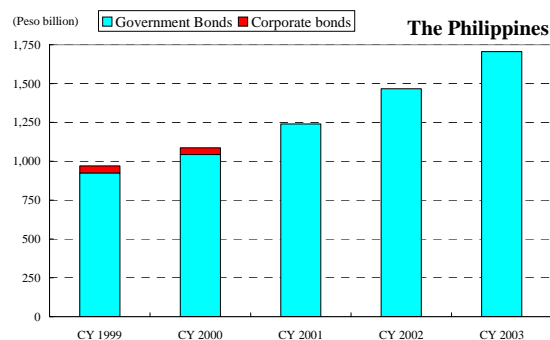
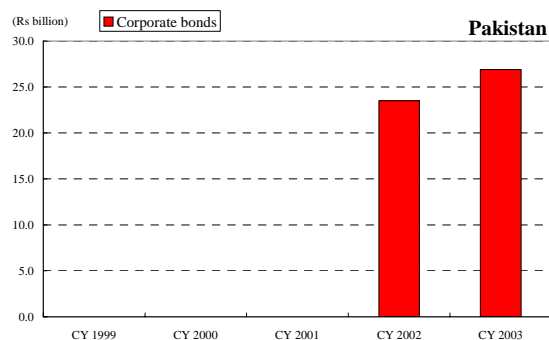
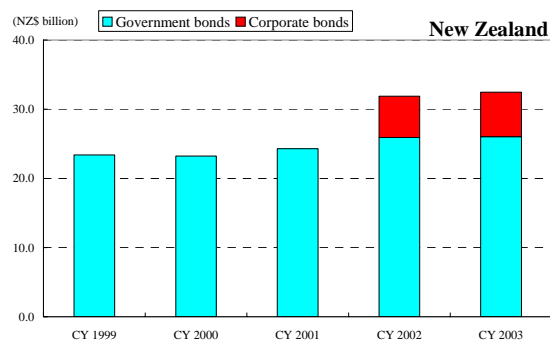
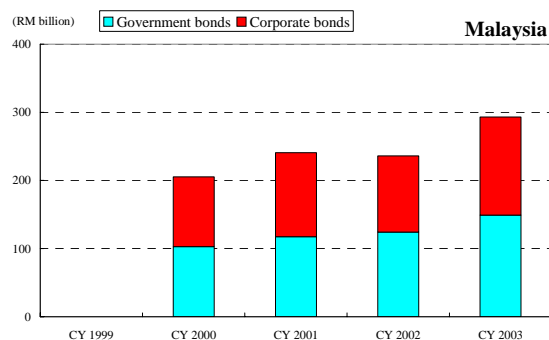
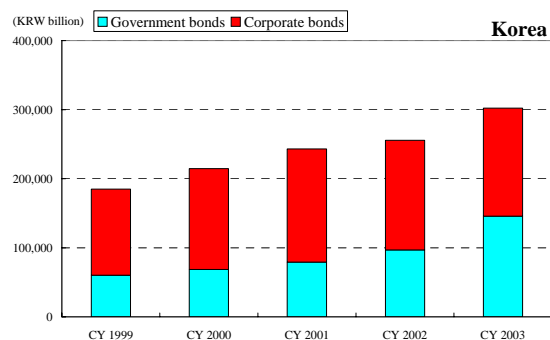
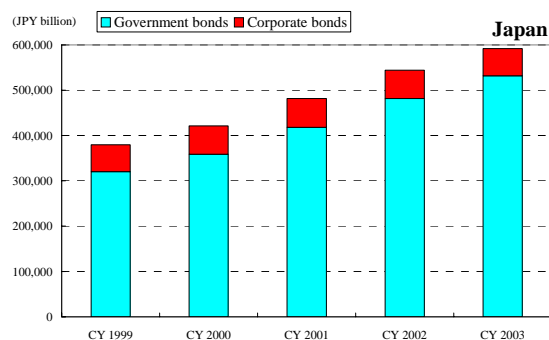
Outstanding Amounts

Here are charts indicating the outstanding amounts in local currencies for the past five years.

[Chart 2] Outstanding amounts⁵

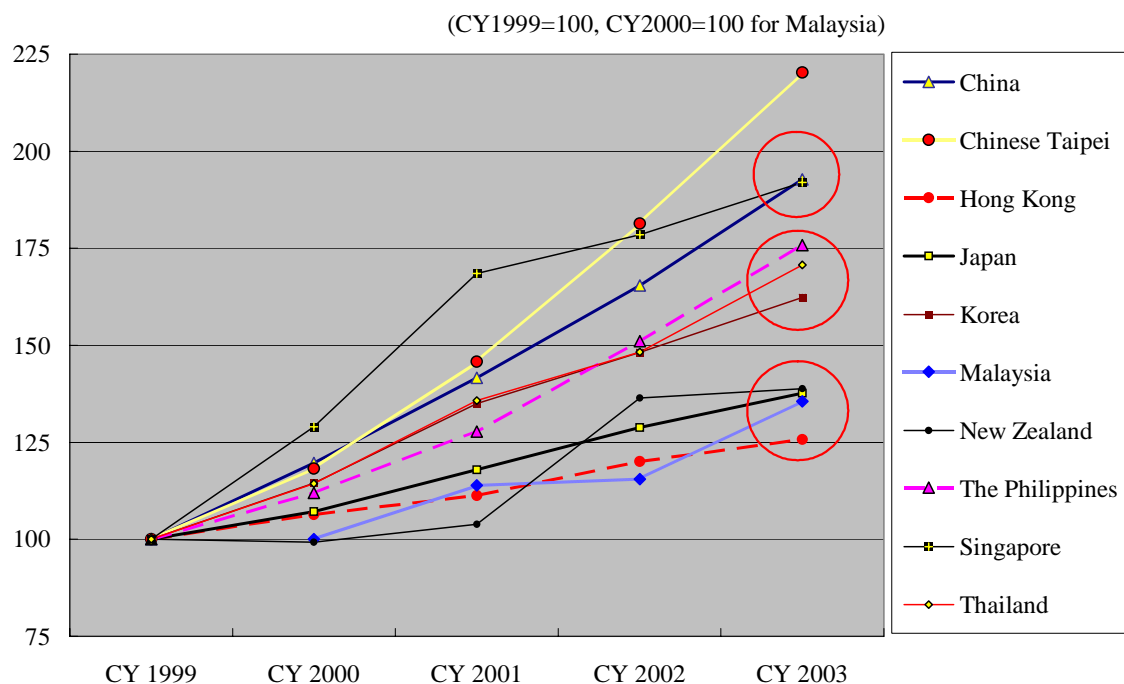


⁵ The data of Pakistan in CY2003 are as of 30th June 2003.



The local currency base outstanding amounts increased over the past five years: approximately 30% in Hong Kong, Japan, Malaysia and New Zealand (Malaysia's data is for the past *four* years); around 60% to 70% in Korea, the Philippines and Thailand; and almost doubled in China and Singapore. Whilst the outstanding amount steadily increased year each year in Chinese Taipei until up to 220% over the past five years

[Chart 3] Increase of outstanding amount⁶



The pace of market expansion varies from jurisdiction to jurisdiction, but such expansion indicates that the basis of the secondary markets, which are benchmarks for new issues, has been being established.

Here is a table of outstanding amounts (aggregated amounts of figures provided by each regulator) converted into US dollars⁷; this is just for a benefit of comparison.

[Table 2] Outstanding amount in US dollar

(Unit: USD million)

| Jurisdiction | Corporate bonds | | | | | Government bonds | | | | |
|-----------------|-----------------|---------|---------|---------|---------|------------------|-----------|-----------|-----------|-----------|
| | CY1999 | CY2000 | CY2001 | CY2002 | CY2003 | CY1999 | CY2000 | CY2001 | CY2002 | CY2003 |
| China | 9,410 | 10,413 | 12,190 | N.A. | N.A. | 127,345 | 157,277 | 188,692 | 233,611 | 273,094 |
| Chinese Taipei | 14,387 | 15,767 | 17,131 | 21,833 | 27,425 | 39,618 | 44,687 | 53,131 | 63,887 | 76,180 |
| Hong Kong | 33,331 | 36,676 | 37,545 | 41,770 | 45,469 | 13,110 | 13,930 | 14,589 | 15,065 | 15,478 |
| Indonesia | 1,997 | 1,952 | 1,811 | 2,404 | 5,496 | - | - | - | - | - |
| Japan | 577,113 | 544,040 | 482,316 | 521,780 | 561,744 | 3,136,062 | 3,125,646 | 3,172,858 | 4,018,369 | 4,966,004 |
| Korea | 109,565 | 115,735 | 124,847 | 133,934 | 131,229 | 52,858 | 54,087 | 60,218 | 81,603 | 122,168 |
| Malaysia | N.A. | 26,971 | 32,529 | 29,350 | 37,835 | N.A. | 27,071 | 30,861 | 32,729 | 39,232 |
| New Zealand | N.A. | N.A. | N.A. | 3,141 | 4,223 | 12,235 | 10,217 | 10,089 | 13,647 | 17,023 |
| Pakistan | N.A. | N.A. | N.A. | 401 | 470 | - | - | - | - | - |
| The Philippines | 1,128 | 1,066 | 0 | N.A. | N.A. | 22,942 | 20,878 | 24,112 | 27,613 | 30,704 |
| Singapore | 26 | 29 | 44 | 51 | 61 | 13,890 | 17,245 | 21,059 | 23,783 | 26,105 |
| Thailand | 4,781 | 4,851 | 5,692 | 6,483 | 9,524 | 24,800 | 24,495 | 28,375 | 31,570 | 38,319 |

⁶ This is based on the aggregated outstanding amounts of bonds, which data were reported by each securities regulator. This does not always mean the total size of the domestic bond market in each jurisdiction. See Note 3 on page 43.

⁷ The exchange rate at the end of the year is used for conversion.

2. Corporate Bonds

(1) Corporate Bond Issuers

This table shows the number of corporate bond issuers in each jurisdiction over the past five years.

Significant increase in number of corporate bond issuers can be seen in Indonesia and Malaysia.

[Table 3] Number of corporate bond issuers⁸

| Jurisdiction | CY1999 | CY2000 | CY2001 | CY2002 | CY2003 |
|--------------------|--------|--------|--------|--------|--------|
| China | N.A. | 5 | 6 | 12 | 15 |
| Chinese Taipei | 37 | 41 | 39 | 60 | 59 |
| Hong Kong | 8 | 12 | 9 | 5 | 6 |
| Indonesia | 6 | 15 | 3 | 7 | 34 |
| Japan | 386 | 404 | 401 | 384 | 368 |
| Korea | 419 | 290 | 341 | 304 | 267 |
| Malaysia | N.A. | 28 | 83 | 114 | 87 |
| New Zealand | N.A. | N.A. | N.A. | 30 | 30 |
| Pakistan | 4 | 6 | 17 | 17 | 15 |
| The Philippines | 6 | 0 | 0 | 1 | 4 |
| Singapore (in S\$) | 53 | 70 | 79 | 79 | 63 |
| (in non-S\$) | 29 | 28 | 31 | 38 | 20 |
| Sri Lanka | 5 | 4 | 3 | 5 | 1 |
| Thailand | 54 | 48 | 26 | 30 | 51 |

(2) Outstanding Amounts of Straight Bonds

Lack of sufficient data does not avail good analysis of the corporate bond market situation, but it can be said that (i) outstanding amounts of straight (or plain vanilla) corporate bonds increased, especially in Indonesia (tripled), Chinese Taipei (doubled) and Thailand (doubled), (ii) the market for asset backed securities (“ABS”), which are notable instruments to give liquidity to illiquid assets, sharply increased in Korea for the past five years, which was close to the size of the straight bond market.

[Table 4] Outstanding amounts of straight bonds

| Jurisdiction | Unit | CY 1999 | CY 2000 | CY 2001 | CY 2002 | CY 2003 |
|-----------------|--------------|---------|---------|---------|---------|---------|
| China | Yuan billion | 78 | 86 | 101 | N.A. | N.A. |
| Chinese Taipei | NTD billion | 386 | 443 | 517 | 651 | 800 |
| Indonesia | IDR billion | 6,737 | 11,802 | 14,037 | 19,360 | 44,653 |
| Japan | JPY billion | 45,656 | 49,989 | 52,369 | 53,121 | 53,219 |
| Korea | KRW billion | 110,527 | 92,581 | 81,074 | 73,519 | 73,454 |
| Pakistan | Rs million | N.A. | N.A. | N.A. | 23,499 | 26,898 |
| The Philippines | Peso billion | 45 | 43 | 0 | N.A. | N.A. |
| Thailand | Baht million | 179,387 | 209,883 | 251,720 | 280,342 | 377,259 |

⁸ The data of Pakistan in CY2001 and 2002 include 2 issuers which issued second tranche during the year.

[Table 5] Outstanding amounts of asset backed securities

| Jurisdiction | Unit | CY 1999 | CY 2000 | CY 2001 | CY 2002 | CY 2003 |
|----------------|--------------|---------|---------|---------|---------|---------|
| Chinese Taipei | NTD billion | - | - | - | - | 9 |
| Japan | JPY billion | 750 | 879 | 889 | 1,092 | 1,195 |
| Korea | KRW billion | 4,552 | 43,727 | 67,329 | 68,070 | 64,324 |
| Malaysia | RM billion | N.A. | 102 | 124 | 112 | 144 |
| Thailand | Baht million | N.A. | N.A. | N.A. | N.A. | N.A. |

(3) Standards of Bond Issuance

There are two major sorts of laws governing corporate bond issuance: one is a commercial code/act (China, Hong Kong, Japan, Korea, Sri Lanka and Pakistan) and the other is a securities industry act (Indonesia, Malaysia, Singapore, the Philippines and Thailand); the actual names of the laws in the latter case in some jurisdictions differ. In Chinese Taipei, it is described under both a commercial code/act and a securities industry act.

In general, standards of issuance approval are varied. However, most jurisdictions appear to move from merit-based approach to disclosure-based approach in which regulators no longer spell out detailed specific criteria for the approval, but instead focus on full disclosure and good corporate governance of the issuers.

Some jurisdictions impose requirements on rating (China, Korea, Malaysia, Pakistan and Thailand) and restriction or limit of total issue amount per issuer (Chinese Taipei and Korea). Meanwhile, in all jurisdictions, there are no requirements on the size of issuers' assets, issuers' profits and losses, and collaterals for the issue, except for China and Chinese Taipei. The Philippines imposes capital requirements on commercial paper issuers.

The approval and allotment periods revealed by some jurisdictions are quite varied. In Malaysia and Thailand, the approval period for general bonds takes about two weeks after receiving full application details while in Singapore the whole process takes (from pre-marketing to payment) about three to five weeks. Meanwhile, in Chinese Taipei, Hong Kong, Japan and Korea, the allotment can take place after the registration date three to eight days. Pakistan and the Philippines have longer periods for approval and issuance. China currently has two phases for corporate bond issuance: Phase I for approval of quota, which takes 12 to 15 months, and Phase II for approval of issuance procedures scheme, which takes 2 months.

Except for underwriting fees and other fees levied by a trustee and other private agencies, no charge shall be paid to regulators on issuance of corporate bonds in Indonesia, Japan and Singapore. On the contrary, in other jurisdictions, namely Hong Kong, Korea, Malaysia, Pakistan, the Philippines and Thailand, a sort of registration fee shall be paid to the regulatory bodies, as stipulated by relevant laws and regulations. In Korea, the amount of fees scaled by the maturity and amount of new issue bonds, which regarded as a part of the working expenses of the Financial Supervisory Service.

Listing fee at exchanges is levied subject to each exchange's rules.

[Table 6] Approval periods and timing for allotment and fee related to corporate bond issuance

| Jurisdiction | Approval period and timing for allotment | Fee related to bond issuance |
|--------------|---|--|
| China | -Phase I for approval of quota; 12 to 15 months -Phase II for approval of issuance procedures scheme; 2 months | -No provision concerning cost under any laws and regulations |

| Jurisdiction | Approval period and timing for allotment | Fee related to bond issuance |
|---------------------|---|---|
| Chinese Taipei | -Registration of straight bonds shall be effective 7 business days after the registration is received by the SFB | -Cost for guarantee, trustee etc is applicable |
| Hong Kong | -Allotment is 3 days after the date of issue of a duly registered prospectus | -Fee for authorisation of a prospectus: HK\$30,000 (paid to the exchange if proposed to be listed, or paid to the Securities and Futures Commission if not) -Fee paid to the Registrar of Companies: HK\$1,415 |
| Indonesia | -No specific period | -No registration fee to be paid to the Capital Market Supervisory Agency, but paid to the exchange if proposed to be listed |
| Japan | -Allotment is 8 business days after filing of a shelf registration | -There are no laws and regulations regarding fees |
| Korea | -Allotment is 3 to 7 days after the registration, depending on bond types (guaranteed/secured bonds, or other bonds) | -Issuers of shelf-registration pay 1/10,000 of total issue amount |
| Malaysia | -Approval is granted within 14 days upon receiving full application details and lasts for 6 months after that -For shelf-registration, the initial drawdown must be made within 2 years after the approval | -No specific figures, but regulatory fees of issuance are fixed and depend on the issue size -Other issuance costs involve recurring and non-recurring fee, which are based on market conventions dependent on the size and structure of the issue |
| New Zealand | N.A. | N.A. |
| Pakistan | -Bond issuers are required to complete the issuance requirements within 60 days after approval was granted by SEC | -Fee charged by SEC depends on the issue amount: up to Rs250 mil – Rs25,000, more than Rs250 mil up to Rs1,000 mil – Rs50,000, and more than Rs1,000 mil – Rs100,000 |
| The Philippines | -SEC shall declare whether the registration statement is effective or rejected within 45 days after the filing | -Upon filing of the registration statement, a fee paid to SEC, which is not more than one-tenth of one per centum of the maximum aggregate price at which such securities proposed to be offered |
| Singapore | -For MTN programme, the whole process (from pre-marketing to payment) takes about 3 weeks for bonds to be issued off -A stand-alone issue might take about 5 weeks | -Fee paid to investment banks for origination and arranging of bonds could range between: <ul style="list-style-type: none"> • 20-40 basis point for plain vanilla issue • 50-100 basis point for a structured bond issue |
| Thailand | -The result of approval in general is granted within 15 days and of private placement is within 7 days | -Registration fee paid to the SEC: 10,000 baht -Listing fee paid to ThaiBDC: 20,000 baht for application plus 0.01 of issue size for upfront fee (but not exceeding 350,000 baht) plus maintenance fee per year |

In most jurisdictions, those who wish to engage in underwriting corporate bonds must hold a securities licence from their securities authorities. Nonetheless, some jurisdictions allow certain financial institutions to engage in such activity without holding a securities license. In China, though securities firms are usually major underwriters of corporate bonds, the State Development Bank is also an eligible underwriter. In Malaysia, financial institutions licensed by the central bank may also engage in underwriting business. Singaporean banks may engage in underwriting business as well with exemption from the licensing requirement.

In the Philippines, all expanded commercial banks or universal banks shall comply with the registration/licensing requirements by the SEC in conducting underwriting business. In Chinese Taipei, underwriters and issuers should not hold over 50% shares of each counterparty or have relative conditions, which means 50% or more directors/supervisors do not have the positions in the two companies concurrently, or are not from members of the family in a certain degree. In Japan,

those who engage in securities business, including underwriters of corporate bonds, shall be registered with the Financial Services Agency.

3. Government Bonds

(1) General

Although the regulatory framework for standards of government bond issuance differs from jurisdiction to jurisdiction, there are some similarities, which can be grouped below.

Firstly, most jurisdictions appear to have both the monetary authority/central bank and the ministry of finance involved with government bond issuance.

Secondly, several jurisdictions appear to have the system of multiple governing laws, depending upon purposes of issuance or classifications of government securities. For example, Japan has separate laws for issuance of four types of JGBs according to the issuance purpose, such as public works/capital subscription, finance of shortage of revenue or redemption of government bonds. Singapore has the Government Securities Act and the Local Treasury Bills Act, governing government bonds and Treasury bill issuance respectively. Only New Zealand and Chinese Taipei reveal a system of single governing law, which are the Public Finance Act 1989, and the Central Government Development Bonds and Loans Act, respectively.

Lastly, most jurisdictions have the monetary authority/central bank conduct the operation of government bond issuance on behalf of the governments.

In Hong Kong, Exchange Fund Bills and Notes are issued by the Hong Kong Monetary Authority for the account of the HKSAR Government Exchange Fund. Strictly speaking, Exchange Fund Bills and Notes are not treated as government bonds. They are included in the following discussion for reference only. In July 2004, HKSAR government started issuing government bonds on a need basis.

Unlike corporate bonds, there are no regulations in any form on the government bond issuance, rating requirements, filing prospectus, size of assets of issuers, collateral for issuance. The governments unconditionally and fully guarantee the bonds.

Interestingly, only Singapore issues government bonds for the sole purpose of developing a deep and liquid bond market, while most jurisdictions do it to finance and refinance the budget deficits, public work projects, etc.

(2) Mechanisms for the Issuance of Government Bonds

Several jurisdictions have systematic patterns for the issuance of government bonds in terms of regular calendars for issuance and auctions, and frequency of issuance. China, Chinese Taipei, Korea, Malaysia, New Zealand, and Singapore provide the annual issuance plans mostly by the end or beginning of each year, or at the budget time each year. The annual issuance plans cover at least issuance size and potential new issues for the year while other details will be announced later on. Hong Kong, the Philippines and Thailand provide issuance calendars quarterly. An issuance calendar for the next three months is always available in Japan.

[Table 7] Patterns of government bond issuance

| Jurisdiction | Issuance calendar / frequency | Auction schedule and its announcement | Detail of bonds |
|---------------------|---|--|---|
| China | -MoF usually works out the annual issuance calendars and publicizes them at the beginning of the year | | |
| Chinese Taipei | -MoF, by the end of each year, announces next year plan (issuance amount, maturity, and issued month) while exact issue size and date is announced quarterly, and issuance terms and conditions are announced 10 days before each issuing -Average frequency of issuance is once a month | | |
| Hong Kong | -Exchange Fund Bills and Notes 91-day Bills: weekly 182-day Bills: bi-weekly 364-day Bills: every 4 weeks 2-,3-,5-,7-year Notes: quarterly -10-year Notes: quarterly/ semi-annually -HKSAR government notes/bonds ranging 2 to 15 years: on a demand basis | -Quarterly tentative schedule announced by 6 weeks in advance -No regular issuance schedule | -Announce at least 4 business days, in advance of each tender, the issue amount/date and bond maturities |
| Indonesia | N.A. | -Bank Indonesia announces the plans for auction of government securities consisting of all necessary details | N.A. |
| Japan | -0.5,1-year T-Bills: monthly -2-,5-,10-,20-year JGBs: monthly -15-year floating rate JGBs: every two months -30-year JGBs, JGBs for Individual Investors, Inflation-Indexed bonds: 4 times a year | -MOF normally announces an auction schedule for the next three months | -MOF announces the expected issue amount/date about a week prior to the auction |
| Korea | -MOFE announces the monthly and annual plans | -MOFE announces the auction plans by the last day of the month preceding the issuance date | -MOFE announces three days before the bidding the issuance amount, coupon rate, and method of payment |
| Malaysia | -Announced through a yearly auction calendar | -Announced through a yearly auction calendar | -Announced through yearly auction calendar |
| New Zealand | -The Crown announces tender program (size, tender dates, potential new issues) for the next financial year at budget time each year (in May) with a formal review of size and timing of tenders held in Dec. and May of each financial year | | |
| The Philippines | -The schedule of issuance (tenor and volume) for the quarter is announced 1 month prior to issuing quarter | -Auction date is 2 days before the issue date. | -The Secretary of Finance, in consultation with the Monetary Board, shall prescribe features of bonds and T-bills |
| Singapore | -3-month T-Bills: weekly -1-year T-Bills, 2-,5-,7-,10-,15-year -SGS bonds are issued according to a pre-announced issuance calendar published at the beginning of the calendar year | | |

| Jurisdiction | Issuance calendar / frequency | Auction schedule and its announcement | Detail of bonds |
|---------------------|--|--|------------------------|
| Thailand | -Issuance schedule for government bonds is pre-announced each quarter, but there is no systematic pattern for frequencies, amounts or maturities | -No systematic pattern for bonds -T-Bills are auctioned monthly | -No systematic pattern |

Most jurisdictions issue bonds with a wide range of maturities, which help facilitate the construction of government benchmark yields for private sectors to use as reference rates for their financing and investment. Chinese Taipei and Japan issue bonds with widest range of maturities up to 30 years.

Most jurisdictions employ both competitive and non-competitive auctions, except only Chinese Taipei and Malaysia where the latter is clearly stated unavailable. Chinese Taipei abolished non-competitive auction in July 2004. Some jurisdictions have the system of non-competitive auction for retail investors only such as Hong Kong and Korea while some do so for cooperatives and non-profit organisations as well and set aside a certain amount of issue or quota for this auction.

All jurisdictions appear to use the average price from all bids in non-competitive auction. In case of competitive auction, some employ Dutch-style auction where all winning bidders with the best prices will be allocated bonds based on a cut off single-price of that auction. Some employ American auction where multiple prices will be used in the allocation of bonds in accordance with the price each participant bids in the auction. China and Japan make use of both multiple- and single-price auctions. Anyhow, priority in allocation of bonds to winning bidders in all types of competitive auction starts from the highest to less highest bid (this is because not all bidders are allocated bonds) till all the bonds are allocated.

Eligible participants in the auctions in all jurisdictions are mostly selected participants or registered bidders either appointed by the central bank or the ministry of finance. General investors can normally participate in the bidding through primary dealers.

[Table 8] Maturities of government bonds, auction methods and eligible participants

| Jurisdiction | Maturity | Auction methods | Eligible participants |
|---------------------|--|---|---|
| China | -2, 5, and 7 years bonds are used as benchmarked bonds | -Combination of competitive (American or Dutch-style is applied) and non-competitive bidding (use quota) -Public tender is adopted for the issuance of book-entry Bonds while underwriting or proxy underwriting is used for Certificate Bonds | N.A. |
| Chinese Taipei | -2,5, 10,20, 30 years | -From July 2004, single rate has been replaced multiple rate competitive bidding and non-competitive bidding was abolished | -PDs (including banks, securities firms, insurance companies, and bill finance companies) |
| Hong Kong | -91-day, 182-day, 364-day (Exchange Fund Bills) -2,3,5,7,10 years (Exchange Fund Notes) | -Combination of competitive and non-competitive auctions (though RDs appointed as Retail Exchange Fund Notes Distributors) | -RDs |
| Indonesia | N.A. | -Combination of competitive and non-competitive auctions; bidders can only place a competitive bid for their own account | -Eligible bidders selected by Bank Indonesia based on the MOF's criteria |
| Japan | -0.5,1,2,5,10,15,20,30 years | -Combination of competitive auction using both multiple- and single-price (depend on maturities of bonds) and non-competitive auction | -Only auction participants decided by the Finance Minister |

| Jurisdiction | Maturity | Auction methods | Eligible participants |
|---------------------|--|---|--|
| Korea | -3,5,10 years (bonds of other maturities may be issued depending on financing needs or market conditions) | -Combination of regular and non-regular biddings | -PDs, financial institutions and investors |
| Malaysia | -3,5,7,10,15 years (Government has plans to issue more longer dated bonds with maturity period from 20 to 25 years) | -Combination of auctions using multiple-price and private placement | -PDs |
| New Zealand | | -Tenders | -Registered bidders |
| The Philippines | -91-day, 182-day, 364-day (T-Bills) -2, 4, 5, 7, 10, 20 years (T-Bonds) | -Combination of competitive and non-competitive auction through Automated Debt Auction Processing System (ADAPS) | -Government Securities Eligible Dealers (GSED) |
| Singapore | -3-month, 1,2,5,7,10,15 years | -Combination of both competitive (T-Bills using multiple-prices, Bonds using a single-price) and non-competitive auctions | -PDs |
| Thailand | -Ranging from approximately 1-18 years | -Combination of both competitive auction using multiple-price and non-competitive auction using average price | -PDs, financial institutions and institutional investors |

4. Disclosure of Information Relating to Bond Issuance

Corporate Bonds

Issuers in all jurisdictions are required to disclose quite the same sort of information when issuing corporate bonds though some jurisdictions may use different approaches for issuance approval, *i.e.* disclosure-based or merit-based approach. The information to be disclosed includes information relating to the terms of the bonds, business situations and financial conditions of the issuer, as well as other risk factors involved.

Unlike merit-based approach, jurisdictions with disclosure-based approach seem to issue disclosure guidelines rather than impose specific requirements for the information to be disclosed.

In addition, where bonds are proposed to be listed, the issuer will need to comply with the listing rules of the exchange in connection with those mentioned above.

The information that issuers are required to disclose over the period since issuing till expiration of the bonds can be classified into two categories: one is material information that may affect the bonds' risks, such as potential default events and substantial changes in nature of the issuers' businesses, which are normally as ad hoc reports; the other is a kind of periodic financial statements and auditor's reports.

Government Bonds

There are no laws or regulations in any jurisdictions that require the disclosure of information relating to the issuance of government bonds.

III. SECONDARY MARKET

1. Secondary Market at a Glance

Trading Volumes

Here are charts indicating the trading volume of corporate and government bonds⁹ in each jurisdiction in local currencies for the past five years.

In general, in most jurisdictions, the issue and outstanding amounts increased over the past five years, which led to an increase in trading volume. In some jurisdictions (Indonesia, Japan and Thailand), trading volumes of government bonds are extremely larger than those of corporate bonds. The most extreme case occurred in Japan where there was two-digit difference between trading volumes of government bonds and corporate bonds.

[Table 9] Trading volumes of corporate bonds

| Jurisdiction | Market | CY 1999 | CY 2000 | CY 2001 | CY 2002 | CY 2003 | Unit |
|-----------------|----------|---------|---------|---------|---------|---------|--------------|
| China | Exchange | 480 | 929 | 688 | 703 | 27,170 | Yuan billion |
| Chinese Taipei | OTC | 98 | 203 | 264 | 852 | 2,153 | NTD billion |
| Indonesia | OTC | 4,894 | 8,794 | 1,115 | 6,092 | 13,511 | IDR billion |
| Japan | OTC | 21,875 | 23,350 | 24,165 | 24,244 | 24,968 | JPY billion |
| Korea | OTC | 218,455 | 136,152 | 131,303 | 110,355 | 80,833 | KRW billion |
| Malaysia | Exchange | 12 | 30 | 33 | 59 | 108 | RM billion |
| New Zealand | Exchange | 486 | 1,023 | 877 | 794 | 758 | NZ\$ million |
| The Philippines | Exchange | - | - | 78 | 74 | 2 | Peso million |
| Sri Lanka | Exchange | 180 | 341 | 152 | 425 | 551 | Rs million |
| Thailand | OTC | 32,819 | 60,011 | 68,152 | 75,942 | 184,914 | Baht million |

[Table 10] Trading volumes of government bonds

| Jurisdiction | Market | CY 1999 | CY 2000 | CY 2001 | CY 2002 | CY 2003 | Unit |
|----------------|----------|-----------|-----------|-----------|-----------|-----------|--------------|
| China | Exchange | 181,914 | 188,912 | 203,032 | 331,283 | 587,560 | Yuan billion |
| Chinese Taipei | OTC | 6,942 | 16,203 | 52,366 | 59,613 | 129,822 | NTD billion |
| Hong Kong | OTC | 16,100 | 23,800 | 21,200 | 22,300 | 20,800 | HK\$ million |
| Indonesia | OTC | N.A | 13,217 | 66,222 | 130,787 | 327,692 | IDR billion |
| Japan | OTC | 1,470,368 | 1,851,301 | 2,050,834 | 2,220,225 | 2,497,530 | JPY billion |
| Korea | OTC | 197,157 | 287,304 | 480,691 | 363,903 | 494,051 | KRW billion |
| | Exchange | 278,189 | 20,593 | 10,100 | 43,306 | 208,716 | KRW billion |
| Malaysia | OTC | 75 | 155 | 291 | 312 | 347 | RM billion |
| New Zealand | OTC | 252,833 | 197,958 | 201,135 | 167,958 | 157,890 | NZ\$ million |
| Singapore | OTC | 106,742 | 154,489 | 337,704 | 446,980 | 619,278 | S\$ million |
| Thailand | OTC | 398,378 | 1,283,722 | 1,500,920 | 2,054,950 | 2,392,452 | Baht million |

In most jurisdictions, bonds are mainly traded in the OTC market. Only in Korea, a significant proportion of about 30% of government bonds is traded on the exchange. The government has made the benchmark bonds mandatory for primary dealers to trade on the exchange since October 2002.

⁹ See note 1 above.

Turnover Ratio¹⁰

The following charts are the turnover ratios, which indicate liquidity of such products, of selected major bonds in each jurisdiction.

[Table 11] Turnover ratio

| Jurisdiction | Market | Corporate bonds | | | | | Government bonds | | | | |
|----------------|----------|-----------------|---------|---------|---------|---------|------------------|---------|---------|---------|---------|
| | | CY 1999 | CY 2000 | CY 2001 | CY 2002 | CY 2003 | CY 1999 | CY 2000 | CY 2001 | CY 2002 | CY 2003 |
| China | Exchange | - | - | - | - | - | 0.72 | 0.48 | 0.45 | 0.82 | 1.80 |
| Chinese Taipei | OTC | 0.22 | 0.39 | 0.44 | 1.13 | 2.34 | 5.58 | 10.96 | 28.20 | 26.94 | 50.18 |
| Hong Kong | OTC | - | - | - | - | - | 0.16 | 0.22 | 0.19 | 0.19 | 0.17 |
| Indonesia | OTC | 0.72 | 0.73 | 0.08 | 0.31 | 0.33 | N.A | 0.03 | 0.17 | 0.33 | 0.84 |
| Japan | OTC | 0.38 | 0.38 | 0.39 | 0.39 | 0.42 | 4.59 | 5.15 | 4.90 | 4.61 | 4.70 |
| Korea | OTC | 1.75 | 0.93 | 0.80 | 0.69 | 0.52 | 3.28 | 4.20 | 6.08 | 3.76 | 3.39 |
| | Exchange | - | - | - | - | - | 4.52 | 0.28 | 0.12 | 0.44 | 1.52 |
| Malaysia | Exchange | N.A | 0.20 | 0.18 | 0.39 | 0.75 | - | - | - | - | - |
| | OTC | - | - | - | - | - | N.A | 1.50 | 2.48 | 2.51 | 2.33 |
| New Zealand | Exchange | N.A | N.A | N.A | 0.12 | 0.15 | - | - | - | - | - |
| | OTC | - | - | - | - | - | 10.81 | 8.53 | 8.28 | 6.48 | 6.07 |
| Singapore | OTC | - | - | - | - | - | 4.61 | 5.17 | 8.66 | 10.82 | 13.95 |
| Thailand | OTC | 0.18 | 0.29 | 0.27 | 0.27 | 0.49 | 0.43 | 1.21 | 1.20 | 1.51 | 1.58 |

2. Trading Facilities

(1) General

The survey shows that all jurisdictions have their secondary trading facilities available for corporate and government bonds either on exchanges or electronic trading platforms (“ETPs”)/alternative trading systems (“ATSS”), or both. Even though the trades occur on exchanges in most jurisdictions, the trading volumes are relatively small; the majority of trades are in OTC markets, except in Korea where the government makes it mandatory for primary dealers to trade benchmark bonds on the exchange.

Corporate bonds are listed on exchanges in most jurisdictions. Some jurisdictions arrange particular systems for trading of corporate bonds only such as Chinese Taipei, Indonesia and Thailand. Indonesia has a system so-called OTC-FIS (Over the counter – Fixed Income System) for corporate bond trading in the OTC market. The OTC-FIS system provides bid and offer quotations, transactions and trade reporting on a real-time basis. Chinese Taipei has automated trade matching system for corporate bonds. Thailand has the Bond Electronic Exchange (“BEX”), launched by the Stock Exchange of Thailand. BEX provides trading service only for retail investors through automatic matching system in the same manner as equity trading. Also Thailand has another ATS system namely Ideal System, originally developed by the Thai Bond Dealing Centre (“ThaiBDC”) to provide trading facilities not only for corporate bonds but also for government bonds for all investors which later has been bought by the Stock Exchange of Thailand.

The Philippine Stock Exchange (“PSE”) achieves a one-price, one-market exchange through the Mak Trade System. This is a single-order-book system that tallies all orders into one computer and ensures that these orders match with the best bid/best offer regardless of which floor the orders were placed. Mak Trade allows PSE to facilitate the trading of securities in a broker-to-broker market through automatic order and trade routing confirmation. It can also detect any transaction irregularity in compliance with market regulations and surveillance database.

¹⁰ This is calculated by the following formula: annual trading volume / outstanding amount at the end of the year.

Government bonds, in addition to OTC trading, are traded on exchanges in some jurisdictions, *i.e.* China, Hong Kong, Japan, Korea, and New Zealand. Chinese Taipei, Indonesia, and Korea arrange particular systems for government bond trading. In Indonesia, IGSTS (Indonesian Government Securities Trading System) is a computerised trading system for government securities using remote technology. This system is designed for dealers who are member of the Inter Dealer Market Association of Government Securities to operate in their dealing rooms. It interacts with the information provider's systems to allow them to disclose real time trading data and it is also connected to OTC-FIS which enables non-members of the Association to monitor the trading of government securities actively through IGSTS.

Korea is an interesting case where the Korean Stock Exchange ("KSE") provides three trading markets for bonds depending on their types: (i) Ordinary Bonds market ("OBM") for corporate bonds, equity-related bonds and government and municipal bonds issued in small amounts; (ii) Government Bonds Market ("GBM") for wholesale trading of government bonds; and (iii) Repo market for government bond trading under repurchase agreements.

Chinese Taipei has the inter-dealer Electronic Bond Trading System ("EBTS") for government bonds, which is counted for 90% of bond market trading volume.

(2) Listing Standards

Listing Requirements for Corporate Bonds

Listing requirements for exchange-traded corporate bonds in most jurisdictions differ from one to another at least to some extent. Among those, Japan and the Philippines seem to have more stringent requirements than others. In case of Japan, standards of both the issuers and the issues are taken into consideration in many aspects such as listing status of the issuer, outstanding amount of the bonds, the number of bonds holders, time elapsed since issuance, and the number of issues allowed per issuer. The Philippines, meanwhile, appears to be the only one using the same listing standards for bonds and equities. The standards mention basic guidelines, track record requirements, numerical criteria and operating history, which are imposed differently for each trading board (First Board, Second Board, and SME Board). In Sri Lanka, eligible corporate bonds to be listed on the exchange's Main Board shall be guaranteed by banks authorised by the central bank, or shall be secured against collateral of real estate, or shall have an investment grade rating from a rating agency registered with the SEC, while corporate bond listed on the Second Board shall be issued by issuers with at least 3-year business experience.

In this regard, common listing requirements imposed by several jurisdictions are the outstanding amount of bonds, time to maturities, and the number of bondholders. In addition, many jurisdictions (China, Chinese Taipei, Hong Kong, Korea, New Zealand and Thailand) do not require the bond issuer to be a listed company. However, in case that the issuer is a non-listed company, Hong Kong requires minimum shareholders' funds and issue size. In Korea, an issuer for bond listing on the exchange is also required to have a minimum capital stock. In Thailand, corporate bonds may be listed on both BEX and ThaiBDC. Both listing requirements are quite relaxed and state that bonds must be granted public offering approval from the SEC prior to seeking listing status. ThaiBDC may no longer hold a trading centre license though. Indonesia is the only jurisdiction that imposes rating requirements for bonds seeking listing status.

Listing Requirement for Government Bonds

Government bonds are listed on exchanges in several jurisdictions, *i.e.* China, Hong Kong, Indonesia, Japan, Korea, New Zealand and Thailand. Nonetheless, China allows only book-entry (scripless)

treasury bonds (“TBs”) to be listed and traded on its exchange. Meanwhile, only Malaysia and Singapore state clearly that they have government bonds traded in the OTC markets only. Among those with listed government bonds, their exchanges grant a waiver from compliance with listing rules, except only Japan. Listing of Japanese Government Bonds is based upon examination procedures similar to those for corporate bonds. Thailand may be a rare case where all government bonds are automatically listed on the ThaiBDC (which holds licence of a trading centre but does not operate as the one) for the purpose of market monitoring and surveillance while trading actually occurs elsewhere in the OTC market.

(3) Disclosure of Trading Information

In general, the information on secondary market bond trading in all jurisdictions is fairly accessible to the public. However, the levels of accessibility to such information vary between those of market participants and public in general. The disclosure of information on secondary market bond trading is as follows. Firstly, for bonds traded in OTC in most jurisdictions, post-trade information (*e.g.* executed prices, trading volume, etc.) is generally more accessible than pre-trade information (*e.g.* bid/offer prices) for which access is mainly open to ATSSs’ members or other information vendors’ subscribers such as dealers or market makers. Secondly, unlike in case of corporate bond trading, the information of government bond trading is more accessible in most jurisdictions because of its higher liquidity and more facility providers. For example, the Central Bank of Malaysia uses its website to disclose trade information to the public. Lastly, the information of exchange-traded bonds is more transparent; it is disclosed to the public in the same manner as in case of equity trading.

[Table 12] Availability of pre- and post-trade information in bond trading

| Jurisdiction | Market | Corporate bonds | | Government bonds | |
|----------------|------------------|---|---|---|--|
| | | Pre-trade | Post-trade | Pre-trade | Post-trade |
| China | Exchange | No | Yes, announced real time via system of the exchanges | No | Yes, announced real time via system of the exchanges |
| | Interbank market | Not available | Not available | No | Announced via China Foreign Exchange Trading Center& National Interbank Funding Center (CFETS) |
| | OTC | Not available | Not available | No | Announced via CGSDTC information release center |
| Chinese Taipei | | Most listed in GreTai and announced through GreTai Securities Market website and information vendor | Both listed and non-listed, disclosed on “ Market Observation Post System ” | GreTai Securities Market discloses the quotation and trading information through website and information vendors <i>e.g.</i> Reuters, Bloomberg | |

| Jurisdiction | Market | Corporate bonds | | Government bonds | |
|-----------------|----------|--|---|--|---|
| | | Pre-trade | Post-trade | Pre-trade | Post-trade |
| Hong Kong | OTC | No, in general | Yes, but subject to the type of ATS. Information vendors also provide post-trade information on certain bonds | -Exchange Fund: Bills and Notes: Yes, but only indication prices by some market makers through Reuters and Bloomberg -Government bonds: Yes, published by information vendors | Yes, through Reuters, Bloomberg Telerate, and HKMA's website |
| | Exchange | Yes, via information vendors on a real time basis and the Exchange's website on delayed basis | | | |
| Indonesia | OTC | Yes, via OTC-FIS system | Yes, available in newspaper | Yes, available from Bloomberg | Yes available in newspaper |
| | Exchange | | | | |
| Japan | OTC | Member of the brokers' broker may obtain, but not available in public | Yes, but limited to some statistical data, which are available via JSDA's website | Member of the brokers' broker may obtain, but not available in public | Yes, but limited to some statistical data, which are available via JSDA's website |
| | Exchange | Yes, via information vendors on a real time basis and trading volume is also announced daily | | | |
| Korea | OTC | Yes, available through KSDA | | | |
| | Exchange | Yes, available for both one-way and two-way quotations, the latter is shown to PD on the KTS | | | |
| Malaysia | OTC | Yes, via BIDS, only available to those approved by the central bank | Yes, available to the public via the central bank's website and information providers | Yes, via BIDS, only available to those approved by the central bank | Yes, available to the public via the central bank's website and information providers |
| | Exchange | Yes, available to the public on a real time basis through the exchange and information providers | | | |
| New Zealand | OTC | Very little information is released | | Available on electronic media and the RBNZ website | |
| | Exchange | Trades through the FASTER trading system are reported via the trading screens | | | |
| The Philippines | | Available through the exchange website at "www.pse.com.ph" | | Yes, electronically at the Bloomberg page | Yes, electronically through Moneyline Telerate |
| Singapore | OTC | No | Yes, but only prices of liquid bonds which may be available via private trading platforms | Yes, both bid/offer prices and executed prices are available through information providers such as Bloomberg and Reuters | |
| | Exchange | Yes, the exchange may post prices of the exchange traded bonds | | | |

| Jurisdiction | Market | Corporate bonds | | Government bonds | |
|--------------|----------|---|---|--|---|
| | | Pre-trade | Post-trade | Pre-trade | Post-trade |
| Thailand | OTC | Generally, no | Yes, accessible to the subscribers of ATSs on issue-by-issue basis and to the public on a ThaiBDC's website and website for retails | Yes, prices of liquid bonds are accessible to subscribers of Reuters, Bloomberg and other ATSs | Yes, accessible to the subscribers of ATSs on issue-by-issue basis and to the public on a ThaiBDC's website and website for retails |
| | Exchange | Yes, available through the exchange's broad and ThaiBDC's website and website for retails | | | |

3. Market Intermediaries

(1) Special Requirement to Become a Broker/Dealer of Corporate Bonds

Similar to the requirements to become a bond underwriter, most jurisdictions do not have special requirements to become a broker/dealer of corporate bonds. In fact, it appears that, except for Thailand, all jurisdictions have a system of single licence which accommodates all brokerage/dealing and underwriting businesses. Though the two licences are separated in Thailand, the same sort of licensing requirements are in place.

In general, one that engages in securities business, either brokering or holding himself out as being ready to buy/sell all types of securities, needs to be licensed or authorised by securities regulators under securities laws. However, regulated institutions in some jurisdictions that are not under the supervision of securities regulators may seek an authorisation to act as a securities broker/dealer from their lead regulators, such as banks and financial institutions under the Banking Act in Hong Kong and Malaysia. Singapore exempted banks from securities licensing scheme.

In case of China, a broker/dealer of corporate bonds must be a member of stock exchange or inter-bank market. Securities firms and banks are relatively active in the inter-bank market while securities brokers usually dominate the exchange market.

Malaysia also requires brokers/dealers to be members of the systems operated by the central bank, namely the Fully Automated System for Issuing/Tendering ("FAST"), Bond Information and Dissemination System ("BIDS") and the Real Time Electronic Transfer of Funds and Securities ("RENTAS").

In New Zealand, a broker/dealer in bonds quoted on the New Zealand Exchange's Debt market ("NZDX") must be accredited by the exchange as an NZDX Advisor.

In the Philippines, only dealers who have an access to the Registry of Scripless Securities ("RoSS") may engage in the regular businesses in buying and selling Government Securities.

In Chinese Taipei, requirements are minimum capital of NTD 200 million, the trading floor and related systems that meet the SRO's standards, as well as the system linkage to securities central depository and the exchange.

Thailand allows banks to hold brokerage/dealing licences limited for bonds only while securities firms hold full licences to deal with all types of securities. Criteria for this type of limited licence

mainly focus on prudential requirements (their capital adequacy), capacity to provide service, effective accounting and auditing system, and fit and proper of the management.

There are certain circumstances in some jurisdictions whereby those acting as a broker/dealer of corporate bonds do not need to hold the licence, such as in Hong Kong where a firm conducts dealing activities with professional investors, or as a principal and bond dealers in Singapore that only deal with accredited investors.

(2) Market Maker/Primary Dealer System

The system of primary dealers exists in several jurisdictions namely China, Chinese Taipei, Hong Kong, Japan, Korea, Malaysia, the Philippines, Singapore and Thailand, though some name it differently (*e.g.* Hong Kong: Recognised Dealers, Malaysia: Principal Dealers).

China has underwriters for book-entry TBs act as primary dealers while its market maker system is still in its infancy.

Japan launched the so-called JGB Market Special Participants Scheme, which is similar to the primary dealer system, on a step-by-step basis starting from October 2004.

Indonesia has not yet implemented the primary dealer system. However, Bank Indonesia and the Capital Market Supervisory Agency are in the process of adopting the primary dealer system.

New Zealand does not have market maker or primary dealer system for government bonds; those wishing to participate in government bond tenders must register with the Reserve Bank of New Zealand. Meanwhile, its exchange has introduced the market maker system for corporate bonds since May 2004, for which clear obligations are specified, but no market participants have been designated yet. These obligations are, for example, to maintain bids and offers in designated bonds, to adjust and reinstate the two-way quotations, to satisfy orders delivered to the market maker's posted quotes, etc.

Notably, Chinese Taipei has abolished non-competitive bidding as well as switched competitive bidding from multiple to single rate since July 2004.

The system of primary dealers has contributed to the development of bond market especially in helping to enhance market liquidity. However, each jurisdiction may benefit differently from the system since the rights and obligations of primary dealers in each jurisdiction are varied. Some have primary dealers obliged to act as market makers with the requirement of making two-way price quotations (bid-offer prices) while some do not, for instance. That makes such system more stringent in one place than another.

[Table 13] Rights and obligations of primary dealers

| Jurisdiction | Rights | Obligations |
|---------------------|---|---|
| China | - | - |
| Chinese Taipei | -Participate in the government bond auctions | - |
| Hong Kong | -In relation to the Exchange Fund Bills and Notes, recognised dealers are permitted to participate in the tenders | -Quote bid/offer prices during normal market -Promote Bills and Notes programme -Be active in the primary and secondary markets |
| Indonesia | Not available yet | Not available yet |

| Jurisdiction | Rights | Obligations |
|---------------------|--|--|
| Japan | <ul style="list-style-type: none"> -Participate in regular meetings -Participate in buy-back auctions -Apply for stripping and reconstruction of STRIPS -Participate in “Non-price Competitive Auction I & II” -Participate in “Interest Rate swap Transactions” -Participate in “Liquidity Supply Auctions” | <ul style="list-style-type: none"> -Carry out bidding/purchasing responsibilities -Maintain and enhance liquidity in the JGB market -Report to the Ministry the trends on JGB transactions |
| Korea | <ul style="list-style-type: none"> -Have exclusively rights to purchase a portion of the newly issued government bonds for resale | <ul style="list-style-type: none"> -Facilitate a regular issuance of government bonds -Quote two-way prices under all market conditions -Retain government bonds of more than 100 billion won semi-annually -Trade most recently issued benchmark government bonds each with maturities of 3,5,10 years only on the exchange |
| Malaysia | <ul style="list-style-type: none"> -Participate exclusively in the government bond auctions | <ul style="list-style-type: none"> -Act as market makers in the OTC market by providing two-way quotes |
| New Zealand | N.A. | N.A. |
| The Philippines | <ul style="list-style-type: none"> -Participate in the primary auction and secondary trading of government securities | <ul style="list-style-type: none"> -Regular participation in the electronic auction of government securities at reasonable and current market bid rates -Position taking and market-making in government securities |
| Singapore | <ul style="list-style-type: none"> -Exclusive dealing with MAS in money market and foreign exchange operations -Exclusive access to the MAS Repo Facility to borrow SGS issues to facilitate its market making -Exclusive right to submit applications for SGS auctions and reverse auctions -Higher non-competitive tender limit and overall allocation limit at SGS auctions -Tax exemption on trading income derived from SGS -Close consultation and dialogue with MAS on SGS auctions and market-related issues | <ul style="list-style-type: none"> -Quote two-way prices under all market conditions -Underwrite issuance at SGS auctions -Provide market feedbacks to MAS -Assist in the development of the SGS market |
| Thailand | <ul style="list-style-type: none"> -Participate in the primary auctions of government bonds -Access first-hand information related to the new issuance of government bonds before other market participants | <ul style="list-style-type: none"> -Quote indicative prices of all benchmark issues for the construction of government bond yield curve -Quote two-way prices on certain benchmark issues -Provide market feedbacks to BOT |

(3) Other Intermediaries Playing Significant Role in the Secondary Market

Several jurisdictions also have other intermediaries playing significant roles in the secondary market for bond trading.

Hong Kong has foreign exchange and money brokers playing an active role in the bills and notes market by providing broker services to inter-bank players.

Korea and Thailand also have inter-dealer brokers (“IDBs”) to facilitate trades among dealers for both corporate and government bonds. IDBs in Korea operate based on a screen-based system; those in Thailand provide services through both telephone and electronic systems.

Singapore has the systems of Singapore Government Securities (“SGS”) brokers and secondary dealers in addition to the primary dealer system. In fact, SGS brokers have similar functions to IDBs’ in Korea and Thailand as they provide the same brokerage services in the inter-bank market, but SGS brokers’ functions cover only outright and repo transactions for SGS securities. Singapore’s secondary dealers consist of approved banks, merchant banks, and brokerage companies.

New Zealand has two brokers active in the government secondary market while the Philippines has Government Securities Eligible Dealers.

(4) Investment Restrictions

In case of corporate bonds, pension monies in Singapore are restricted to buy corporate bonds with minimum rating requirements due to investor’s protection. In Thailand, the same restrictions on repo and lending transactions of corporate bonds are imposed on non-residents. There are also some restrictions on transactions of corporate bonds by investors’ category in Thailand. These restrictions exist mainly for the purpose of prudential regulations of institutional investors, set by their respective regulators other than the market restrictions. For example, mutual funds and provident funds may invest in certain corporate bonds with (i) designated ratings, (ii) guarantee by certain enterprises such as state enterprises and banks (iii) company limit of not exceeding either 15% or 20%, according to an issuer. Government pension funds have restrictions on company limit of not exceeding either 10%, or 20%, or the minimum rating requirement as BBB+ or above. Insurance companies may invest in any bonds without restrictions, if the bonds are guaranteed by the Ministry of Finance. If not, company limit of not exceeding either 15% or 20%, depending on issuers (either state enterprises or limited companies), shall be imposed. Also, financial institutions in Korea, such as mutual funds and investment trust companies, are restricted to buy corporate bonds whose ratings are BBB- or above as minimum rating requirements. There also exist restrictions on repo and SBL transactions, and investing securities issued by identical groups.

In other jurisdictions, there are no restrictions on purchase or trade of corporate bonds.

As for the government bonds are concerned, there are no restrictions on purchase or trade in any country except Japan and Thailand, where the central bank prohibits repo or lending of government bonds through securities firms or commercial banks for non-residents.

In Japan, certain government bonds have a limited restriction for investors; STRIPS (Separate Trading of Registered Interest and Principal of Securities; fixed coupon and principal may be separated and traded separately) is held only by juridical persons; Inflation-Indexed Bonds are held only by financial institutions in Japan and foreign governments and qualified foreign corporations, etc. JGBs for Individual Investors are held only by individual investors, and have no secondary market. Since one year after the issuance, it can be redeemed, provided a certain penalty is deducted.

IV. MARKET INFRASTRUCTURES

1. Settlement System/Depository Structure

(1) Government Bonds

The settlement system depends on the places where the bonds are traded; exchanges or OTC markets. For government bond trading in the OTC market, the settlement is usually done on RTGS-DVP basis with electronic fund transfer using central bank infrastructure. In most jurisdictions, the transfer is done through book-entry system (scripless) except in Thailand where participants may choose to transfer ownership through physical delivery of certificates. The settlement period usually varies between T+0 in Malaysia to T+3 in Japan.

In certain jurisdictions, *i.e.* Hong Kong, Japan and Korea, government bonds are also traded on exchanges. The settlement system is multilateral netting where a clearinghouse acts as a central counterparty.

A central bank usually acts as a registrar and central securities depository for government bonds. The exception is in Korea, where Korea Securities Depository (“KSD”) is the single depository for all securities including government bonds. The depository system is usually a computerised book-entry system except in Thailand, where there is still a physical certificate available.

Eligible participants to settlement system for trading in the OTC market usually are financial institutions authorised by the central banks except in Korea, where participants are approved by KSD and in Indonesia where participants are approved by inter-dealer market association. For bond trading on exchange, eligible participants to the settlement system also include securities firms and other institutions approved by the exchanges. In New Zealand, all Delivery and Settlement Participants must be connected to FASTER. In Korea, Primary Dealers and Preliminary Primary Dealers are required to trade benchmark government bonds on the exchange, contributing to higher trading volume.

[Table 14] Clearing and settlement system and depository structure for government bonds

| Jurisdiction | Settlement period | Clearing and settlement system (C&S) | Depository structure |
|----------------|---|---|--|
| China | T+1 for trades in interbank market and on exchange, and T+N for tiny proportion | China Government Securities Depository Trust (CGSDTC) and China Securities Depository & Clearing Co. Ltd. (CSDC) are involved in C&S of TBs | CGSDTC acts as registrar and custodian of TBs and of interbank TBs while CSDC is responsible for custody of exchange-traded TBs |
| Chinese Taipei | T+2 T+2 | EBTS Trading: Settle through GreTai Securities Market OTC Trading: Clearance through central register system of Central Bank | 95% of bonds are registered in Central Bank while another 5% are still in physical form and could be kept in every bank Clearing banks handles book-entry and payment matters |

| Jurisdiction | Settlement period | Clearing and settlement system (C&S) | Depository structure |
|-----------------|--|---|--|
| Hong Kong | T+0 for morning trades T+1 for afternoon trades | <u>OTC:</u> C&S are effected through a computerised book entry-system operated by the CMU of the HKMA or other depositories | Bills and Notes are issued and registered in a computerised book-entry form With regard to government bonds, the USD institutional notes are deposited in global form with the book-entry facilities of DTC and the HKD institutional notes and retail bonds are deposited in global form with a sub-custodian of CMU |
| | T+2 | <u>Exchange:</u> C&S through HKSCC, which has an account with CMU to facilitate settlement | |
| Indonesia | N.A. | C&S is done by book-entry on a DVD basis (gross to gross and gross to net) (BI-SKRIP) | Registration is in scripless form by means of book-entry with availability of central registry and sub-registry through (BI-SSSS) |
| Japan | T+3 | Both listed and non-listed JGBs are settled under the JGB book-entry transfer system of the BOJ (BOJ-NET) | BOJ is the transfer agent which operates the JGB book-entry transfer system |
| Korea | T+0 | <u>Ordinary bond markets (government bonds issued in small amounts):</u> Settlement of bonds is done through book-entry transfer system at KSD while the settlement of fund is done through electronic fund transfer of commercial banks; the method used is multilateral netting | Most of government bonds are registered at the BOK |
| | T+1 | <u>Government bond markets (benchmark):</u> Settlement of bonds is done through book-entry transfer system at KSD while the settlement of fund is done through electronic fund transfer of the central bank; the method used is multilateral netting | |
| | T+1 to T+30 | <u>OTC bonds:</u> Settlement of bonds goes to KSD while settlement of funds goes to the Central Bank; the method used is gross-to-gross RTGS system | |
| Malaysia | T+0 | Government bonds are scripless and deposited under RENTAS, which operates DVP system on a trade-by-trade basis | The central bank acts as the central depository |
| New Zealand | T+2 | Appears to be DVP-RTGS where each member has a security account with NZCSD and cash account provided by a registered New Zealand Bank. Settlement information is checked if each party has sufficient cash/credit or bonds to be settled and it is irrevocable once settled | NZCSD, fully owned by the Reserve Bank of New Zealand, is the legal owner of securities held on behalf of beneficial owners (the inventory of securities now stands around NZD 80 billion) |
| Pakistan | - | - | - |
| The Philippines | T+0 | Generally DVP-RTGS is applied, however, pending full electronic interface by GSED to RoSS and to the settlement bank, RoSS shall net all trades of all dealers for final settlement by the settlement bank, | None. Only a registry of Scripless Securities |

| Jurisdiction | Settlement period | Clearing and settlement system (C&S) | Depository structure |
|--------------|-------------------|--|--|
| | | provided that settlement shall be on the same day | |
| Singapore | T+1 | DVP-RTGS system through MEPS, designed for high value funds transfers and settlement of scripless SGS (book-entry clearing system) | Primary and secondary dealers can hold SGS bonds in custody for investors without a MEPS accounts |
| Thailand | T+2 | Bonds are settled mainly through BOT's BAHTNET system on DVP-RTGS basis; physical settlement may be chosen | BOT acts as the sole registrar with a system of single-tier structure; the system supports the book-entry system |

(2) Corporate Bonds

The settlement system depends on the places where the bonds are trading; on exchanges or in the OTC market. Generally, the infrastructure is the same as that of the government bonds except that the registrar or depository may not be the central bank.

For the OTC market, corporate bonds are settled through book-entry system on a DVP basis with a central securities depository ("CSD") except in Thailand in Japan. In Thailand, corporate bonds are not totally scripless and there is no central depository for corporate bonds. In Japan, the book-entry system for corporate bonds with a CSD will start in January 2006, but bearer bonds and registered bonds, whose the holders' name is transferred on a book at a registration agent remain in the markets for a while after the book-entry system starts. In Hong Kong, participants use not only a domestic CSD but also international central depositories ("ICSD"), such as Euroclear and Clearstream.

For corporate bond trading on the exchange, the settlement system is multilateral netting where the exchange's clearing house acts as a central counterparty. The settlement periods vary from T+0 to T+3.

Eligible participants to the settlement system for trading in the OTC market are usually financial institutions authorised by the central banks except in Korea where participants are approved by KSD and in Indonesia where participants are approved by Central Securities Depository Institution. For bond trading on exchanges, eligible participants also include securities firms and other institutions approved by the exchanges.

[Table 15] Clearing and settlement system and depository structure for corporate bonds

| Jurisdiction | Settlement period | Clearing and settlement system (C&S) | Depository structure |
|----------------|----------------------------|---|--|
| China | N.A. | C&S of bonds traded in the interbank and exchange markets are effected through bookentry transfer from the bearers' accounts at China Government Securities Depository Trust (CGSDTC) to their accounts at China Securities Depository & Clearing Co. Ltd. (CSDC) bonds | CGSDTC and CSDC support bookentry transfer of corporate bonds |
| Chinese Taipei | T+2 | Trades occurs on trading system are settled through TSCD. Whilst trades occurs in OTC are settled as counterparties agree | TSCD acts as depository and support book-entry transfer |
| Hong Kong | Negotiated between parties | OTC: C&S are effected through a computerised book entry-system operated by the CMU of the HKMA or ICSD | Corporate bonds are issued in form of Global Note and transfers of interests are effected through book |

| Jurisdiction | Settlement period | Clearing and settlement system (C&S) | Depository structure |
|-----------------|--------------------------|---|---|
| | T+2 | Exchange: C&S through HKSCC, which has an account with CMU to facilitate settlement | entry systems operated by the CMU and/or ICSD |
| Indonesia | Up to the counterparties | All bonds are scripless; C&S of OTC trades is conducted by book-entry between accounts at PT KSEI | PT KSEI conducts depository function through book-entry system |
| Japan | T+3 | The settlement occurs at each registration agent through the linkage between JB NET and BOJ Net, which enables DVP settlement The reform of relevant laws in 2003 enables bonds to be settled on book-entry system | JSDC, a transfer agent of the book-entry transfer system will start paperless settlement of bonds from January 2006 |
| Korea | T+0 | Listed bonds: Settlement of bonds is done through book-entry transfer system at KSD while the settlement of fund is done through electronic fund transfer of commercial banks; the method used is multilateral netting | Registration occurs at KSD |
| | T+1 to T+30 | OTC bonds: Settlement of bonds goes to the book-entry system at KSD while settlement of funds goes to the Central Bank; the method used is RTGS system | |
| Malaysia | T+0 | Unlisted bonds: Scripless and deposited under RENTAS, which operates DVP system on a trade by trade basis | Unlisted bonds: The central bank act as the central depository using RENTAS |
| | T+3 | Listed bonds: Settlement occurs through the electronic central clearing house | Listed bonds: The exchange's clearing house |
| New Zealand | T+3 | Exchange: Bonds traded on NZDX can be settled through FASTER settlement system or Austraclear (see settlement of government bonds above) | NZCSD, fully owned by the Reserve Bank of New Zealand, is the legal owner of securities held on behalf of beneficial owners |
| | Within T+15 | For OTC trades not settled through FASTER | |
| Pakistan | T+3 | At the exchanges through National Clearing and Settlement System (NCSS) maintained by National Clearing Company of Pakistan Limited (NCCPL) | Central Depository Company of Pakistan Limited |
| The Philippines | T+0 | There shall be no physical transfer of bond certificates. SDT Bonds are transferred electronically by the BTr's Registry of Scripless Securities (RoSS) while cash settlement are done through two Philippine Stock Exchange's settlement banks (Equitable-PCI Bank and Rizal Commercial Banking Corporation) | Done through book-entry system by the Philippines Depository and Trust Corporation (PDTC) |
| Singapore | T+3 | Corporate bonds can be settled through the local central depository through the linkage between DCSS (Securities) and MEPS (funds) | CDP, a subsidiary of Singapore Exchange, is a central depository. |
| Sri Lanka | T+1 | Settlement takes place at the settlement bank appointed by the Central Depository System (CDS) | Deposited in the Central Depository System (CDS) |

| Jurisdiction | Settlement period | Clearing and settlement system (C&S) | Depository structure |
|--------------|-------------------|---|---|
| Thailand | T+3 | Exchange: Settlement is done through the same system as equity, <i>i.e.</i> multilateral netting system in which steps in as a central counterparty | The system of multi-tier structure and multiple registrars exists. Bond transfer can occur either via book-entry system at TSD or physical certificates |
| | T+2 | OTC: There is no centre for C&S and registration of bonds, but counterparties may use TSD's facility to make securities transfer electronically | |

2. Hedging Facilities

Hedging instruments in the OTC market are widely available in most jurisdictions except Indonesia and the Philippines. In addition, most jurisdictions also have futures exchanges except for China, Indonesia, the Philippines and Thailand. Thailand, nonetheless, plans to establish its futures exchange for financial derivatives in 2005. Thus, investors may also hedge their risks with the exchange-traded derivatives.

There are also floating interest benchmarks present in various jurisdictions, but the rates used as benchmarks vary widely among jurisdictions. The benchmarks are six-month Thai Baht implied swap rate or local bank's minimum lending rate or deposit rate for Thailand, 90-day bank bill rate for New Zealand, certificate of deposit rate for Korea, and inter-bank lending rate for Hong Kong (HIBOR); Japan (TIBOR or yen LIBOR); Malaysia (KLIBOR); Pakistan (KIBOR); and Singapore (SIBOR). In Thailand, different groups of market players use different short-term benchmarks, *e.g.* foreign branch banks prefer the implied swap rate while local banks are in favour of T-bill rate or deposit rate. The Bangkok inter-bank offer rate (BIBOR) was introduced in January 2005. There is no floating interest rate benchmark in China, Indonesia, and the Philippines. In Chinese Taipei, floating interest rate is not available either, but 90-day CP rate is used as the currency market benchmark.

[Table 16] Hedging enhancement facilities

| Jurisdiction | Corporate bonds | Government bonds |
|----------------|---|--|
| China | Hedging facilities are far from adequate | Only outright repo and pledged repo, introduced early 2004, are available now |
| Chinese Taipei | -Convertible bond asset swap -Bond option -Forward | -Futures (30-day and 10-year) -Bond option -Interest rate swap/option -Forward |
| Hong Kong | -A wide range of hedging instruments is available, <i>i.e.</i> forward rate agreement, interest rate swap, interest rate futures, and Exchange Fund Notes futures -SBL and repo are permitted but not active | |
| Indonesia | N.A. | N.A. |
| Japan | -Futures and options on corporate bonds are not available on exchanges. -SBL and repo are permitted | -There are JGB futures, options on JGB futures and yen-swap futures traded on exchanges -In OTC market, JGB options and interest rate options as well as interest rate swaps are available -SBL and repo are permitted |
| Korea | -Government bond and CD interest rate futures are available -SBL is available but not very active | |

| Jurisdiction | Corporate bonds | Government bonds |
|-----------------|---|--|
| | -Repo market was opened in 2002 by KSE, however, repo transactions occur mainly in OTC | |
| Malaysia | <ul style="list-style-type: none"> -No specific corporate bonds derivative instruments are available for hedging purposes -Only few issued of unlisted corporate bonds are available for SBL transactions -The repo for corporate bond is significantly more active than SBL | <ul style="list-style-type: none"> -Short-term hedging, the three month KLIBOR futures is offered by the Malaysian Securities Exchange -Long-term hedging, Malaysian government securities futures are also offered by the exchange -Government bonds deposited under RENTAS are available for both SBL and repo market activities |
| New Zealand | N.A. | Swap is primarily used for hedging; also the repo market is very active. This makes bond futures market almost non-existent |
| Pakistan | Regulations for SBL was recently approved by SEC | - |
| The Philippines | <ul style="list-style-type: none"> -Commercial papers can be treated just like government securities for hedging purposes -They can be the underlying assets for a financial transaction | <ul style="list-style-type: none"> -GS can be used as underlying assets for derivative transactions and other financial structures under such arrangements -Hedging mechanism can be availed from the market mostly from foreign banks -The usual hedge facility available is the currency hedge facility and size varies but tenor is limited to short-term, <i>i.e.</i> 1-2 years since long term hedge are very costly |
| Singapore | <ul style="list-style-type: none"> -Investors may hedge through repo, interest rate swap, interest rate futures, and bond futures markets -There are no formal SBL facilities established, but some banks lend Singaporean dollar denominated securities | <ul style="list-style-type: none"> -Investors may hedge through repo, interest rate swap, interest rate futures, and bond futures markets -Primary dealers have exclusive access to MAS repo facility to help PDs do market making activities |
| Sri Lanka | -SBL available though a number of trades is limited since its inception | - |
| Thailand | <ul style="list-style-type: none"> - In OTC market, interest rate swaps up to 5 years are liquid in which the Thai Baht implied swap rate is the most tradable benchmark - Bond forwards and bond options are permissible for commercial banks. - Futures exchange is expected to be introduced in 2005 - SBL and repo are also permissible | |

3. Liquidity Facilities

Liquidity facilities such as securities borrowing and lending (“SBL”) and repo are available in all jurisdictions except in Indonesia where the authority is about to launch a repo facility for government bonds. Only in Thailand, a licence to operate a securities borrowing and lending business is required. Central facilities for SBL and repo are present in some jurisdictions, *e.g.* Chinese Taipei, and the Philippines. Thailand Securities Depository Company Ltd. (“TSD”) is going to provide central facility for SBL and repo.

Generally, commercial banks, securities companies and primary dealers are eligible to utilise liquidity facilities. Certain jurisdictions such as Malaysia and Thailand do have restrictions on securities borrowing and lending transactions with non-residents.

[Table 17] Liquidity facilities

| Jurisdiction | Corporate bonds | Government bonds |
|---------------------|---|--|
| China | N.A. | -Only outright repo and pledged repo are available now. |
| Chinese Taipei | -Repo market | -Both SBL and repo are available. Repo trades count for 45% of total bond trading volume. SBL system and SBL Centre are implemented in Jan. 2004. |
| Hong Kong | -There is no restriction for market participants to utilize liquidity facilities. | -There is no restriction for market participants to utilize liquidity facilities. |
| Indonesia | N.A. | -At present, liquidity facilities are not available for government bonds. In the near future, the central bank and Bapepam are going to provide repo facility for government bond market. |
| Japan | -Bond lending transactions are limited to juridical persons. | |
| Korea | -SBL: banks, securities/insurance/asset management companies, national institutional investors and similar foreign institutions are allowed to participate in SBL market without any special requirements, but a foreign institution is required to appoint a local agent. -Repo in the exchange: participants are government bond dealers (bond specialised dealers are excluded). -For OTC market: trade is conducted directly between participants or a third party. | |
| Malaysia | -SBL: only principal dealers are authorised to participate as both lender and borrower in an SBL transaction while all approved dealers and non-licensed institutions may participate only as lender. Moreover, the securities that may be borrowed must be specified by the central bank. -Repo: principal dealers and licensed financial institutions are eligible participants. | |
| New Zealand | | -Well-developed repo market, which has larger turnover than the physical market. |
| Pakistan | Regulations for SBL was recently approved by SEC. | - |
| The Philippines | N.A. | -No repo markets. -BSP has put in place an intra-day liquidity facility, which is collateralized by government securities and available for all banks and non-banks having quasi-banking licence. |
| Singapore | -No formal securities borrowing and lending facilities established for corporate bonds | -Only primary dealers are allowed to utilise the MAS repo facilities. |
| Thailand | -SBL: SEC requires one operating SBL business as an intermediary to have a SBL license. For mutual funds, they can engage in SBL only for lending side and the exposure is limited to no more than 25% of its NAV. Private fund and provident fund are also allowed to do so on lending side, too. -Repo: banks, securities/insurance companies and government pension fund can engage in repo transactions. But commercial banks and securities firms may not de repo with non-residents. | |

V. OTHERS

1. Tax Treatments

Tax treatments on bond investment are varied from jurisdiction to jurisdiction. It is, however, observed that most jurisdictions do not impose stamp duty, except for China, Pakistan and the Philippines; capital gain is imposed in a few jurisdictions; and withholding tax on coupon interests is imposed by half of the respondents. There are also few different tax treatments between corporate bonds and government bonds.

Here is a summary table of relevant tax rates in each jurisdiction.

[Table 18] Tax treatments

| Jurisdiction | | Coupon interest | Capital gain | Stamp duty |
|-----------------|---------------|-----------------|--------------|------------|
| China | | 20%* | No | Yes |
| Chinese Taipei | | See below | No | No |
| Hong Kong | | No | No | No |
| Indonesia | | 20% | No | No |
| Japan | | 20% | No | No |
| Korea | | 15% | No | No |
| Malaysia | | 28% | No | No |
| Pakistan | | 10% | 10% | Yes |
| The Philippines | | 20% | See below | Yes |
| Singapore | | 10%** | No | No |
| Thailand | Retail | 15% | 15% | No |
| | Institutional | 1% | No | No |

(Note) Tax treatment for non-residents is not mentioned in this summary because it varies, due to a bilateral tax treaty each jurisdiction has with its counterpart.

* This is applied to corporate bonds. No interest tax is levied on Treasury Bonds.

**Concessionary tax rate for Qualified Debt Securities. See detail below.

Here are notes to each jurisdiction:

Chinese Taipei: Individuals have NTD270,000 tax exemption. 20% withholding tax is applied to institutional investors and 25% to foreign investors.

Hong Kong: Profits tax may need to be paid if applicable.

Indonesia: 20% tax rate has been applied to both interest bearing and discount bonds traded on or reported to the Exchange under the new regulation on income tax since 1st May 2002, due to encouragement of reporting to the Exchange in order to enhance transparency.

Japan: Withholding tax on coupon is 20%, which consists of 15% income tax (national tax) and 5% local tax. Securities transaction tax, which was imposed on sale of securities, was abolished in 1999. 18% tax rate is applied to the redemption profit for discount-issued bonds.

New Zealand: Coupon on corporate bonds is considered income and subject to income tax. Government bonds are subject to non-residential withholding tax ("NRWT") for local investors. Off-shore investors are exempt from NRWT.

Pakistan: 0.01% capital value tax on purchase of bonds and 0.005% withholding tax on sale of bonds are imposed.

The Philippines: Trading gain for the government bonds is subject to 5% Gross Receipt Tax. Gross income arising from the sales of the corporate bonds in the Philippines, which are made by Philippine-registered securities dealers, is subject to 10% value-added tax.

Singapore: Interest income that residential institutional investors earned from investment in debt securities qualified as ‘Qualified Debt Securities (“QDS”)’ would be taxed at a concessionary tax rate of 10%. Interest income from QDS, earned by non-residential institutional investors, is exempt from withholding tax. If the debt securities fail to be qualified as a QDS, the corporate tax rate of 20% is applied to the interest income.

Thailand: Financial institutions are subject to 3.3% SBT on coupon interest, discount and capital gain.

2. Ratings

Every jurisdiction has credit rating agencies domiciled, either a local one, or an international one, or both. In some jurisdictions *i.e.* Korea, Malaysia, Sri Lanka and Thailand, rating agencies aforementioned shall be authorised by the securities regulators.

Here is the list of rating agencies in each jurisdiction.

[Table 19] Rating agencies and number of rated issuers

| Jurisdiction | Rating agencies |
|----------------|---|
| China | China Chengxin International Credit Rating |
| | Shanghai Fareast Credit Rating |
| Chinese Taipei | Taiwan Rating |
| | Fitch (Taiwan) |
| | S&P (Taiwan) |
| | Moody's |
| | Fitch Inc. |
| | S&P Corp. |
| Hong Kong | Moody's |
| | Standard & Poor's |
| | Fitch Ratings |
| Indonesia | PT. PEFINDO |
| | PT. KASNIC |
| Japan | Rating and Investment Information (R&I) |
| | Japan Credit Rating Agency (JCR) |
| | Moody's Japan |
| | Standard & Poor's |
| | Fitch Ratings Japan |
| Korea | Korea Ratings Corporation (KR) |
| | Korea Investors Service (KIS) |
| | National Information & Credit Evaluation Inc (NICE) |
| | Seoul Credit Rating & Information Inc (SCI)* |
| Malaysia | Rating Agency Malaysia (RAM) |
| | Malaysia Rating Corporation (MRAC) |

| Jurisdiction | Rating agencies |
|-----------------|--|
| New Zealand | S&P |
| Pakistan | Pakistan Credit Rating Agency (PACRA) JCR-VIS |
| The Philippines | Philrating, Inc |
| Singapore | Moody's Standard & Poor's Fitch Ratings |
| Sri Lanka | Fitch Ratings Lanka Limited |
| Thailand | TRIS Rating Co. Ltd. Fitch Rating (Thailand) Ltd. |

*SCI can do rating business only on CP and ABS.

China, Chinese Taipei, Korea, Malaysia, Pakistan and Thailand require ratings on corporate bond offering and such rating shall be disclosed to the public through registration statements or prospectus, except a very small bond issue (≤ 100 million baht) to be sold to limited investors (≤ 10 investors) in Thailand. In Sri Lanka, the investment grade rating is one of the criteria for Main Board listing of the exchange. Hong Kong does not require ratings. In Singapore, similar to in Hong Kong, ratings and their disclosure are not required unless issuers wish to tap funds in the retail market. In Japan, issuers who request their bonds to be rated (limited to the ratings obtained from the designated rating agencies by the FSA) are required to disclose their ratings obtained in the written registration statements for all such requested issues.

There is little information about the number of rated issuers in each jurisdiction except for Indonesia, Japan and Korea. The number of issuers rated by such rating agencies is as follows: Indonesia: PT PEFINDO (200 issuers), Japan: R&I (623), JCR (618), Moody's (298), S&P (334) and Fitch (58), and Korea: KR (250), KIS (219), NICE (230) and SCI (86).

3. Accounting and Auditing Standards

(1) Accounting Standards Applied to Bond Issuers

Although all jurisdictions have their own accounting standards applied to corporate bond issuers, there is flexibility in several jurisdictions where accounting standards in other jurisdictions or internationally recognised accounting standards, such as US GAAP or IAS/IFRS, are also acceptable, some of which treat international accounting standards as equally acceptable as their own standards while some require additional information or prior approval. Examples of the former cases are Chinese Taipei, Indonesia, Singapore and the Philippines, whilst of the latter are Japan and Korea. Additionally, Singapore is open to other standards than US GAAP and IAS/IFRS, but approval is required on a case-by-case basis. Japan recognises financial statements of foreign companies, which are disclosed in their home/third-jurisdiction based on their home/third-jurisdiction's standards, if the FSA approves it as not lacking in public interests or investor's protection. Korea also recognises US GAAP and IAS/IFRS whereby foreign issuers may be waived from submitting additional documents when applying for the issuance of Won currency denominated bonds, if any of those standards is applied and audited pursuant to the securities statutes of the home jurisdiction.

The accounting standards in most jurisdictions are set by professional bodies, of which Hong Kong, Malaysia, Pakistan and Thailand indicate the adoption from the international accounting standards. China and the Philippines appear to present a different approach whereby the standard setting and

supervisory bodies are authorities. For the standards set by professional bodies, nonetheless, some securities regulators preserve their rights to interfere when deemed necessary. Indonesian Capital Market Supervisory Agency may set the rules with respect to capital market. The Financial Supervisory Commission (“FSC”) of Korea may request Korea Accounting Institute (“KAI”) to amend the standards upon the deliberation of the Securities and Futures Commission of the FSC. As a result, KAI shall comply with the request of the FSC unless there is a justifiable reason.

[Table 20] Accounting standards and setting bodies

| Jurisdiction | Accounting standard to be applied to bond issuers | Organisations that set the accounting standards |
|---------------------|--|--|
| China | -Chinese Corporate Accounting Standards and accounting standards for relevant industries | -MoF sets the standards, and both MoF and CSRC are supervisors |
| Chinese Taipei | -US GAAP is accepted | -Set by Accounting Research and Development Foundation, and supervised by Securities and Futures Bureau |
| Hong Kong | -In case of unlisted bonds, Hong Kong Financial Reporting Standards (HKFRS) -In case of listed bonds: Either HKFRS or International Financial Reporting Standards (IFRS) with additional requirements | -Hong Kong Institute of Certified Public Accountants (HKICPA), which adopts the standards towards IFRS issued by the International Accounting Standards Board |
| Indonesia | -Indonesia Accounting Standard, US GAAP and IFRS are also acceptable | -Indonesia Institute of Accountant Bapepam may set accounting rules on the capital market area |
| Japan | -Japanese GAAP -Financial statements of foreign issuers, which are disclosed in their home/third jurisdiction based on their home/ third-jurisdiction’s standards, if approved by the FSA as not lacking in public interests or investor’s protection | -Accounting Standards Board of Japan (ASBJ) |
| Korea | -Korea GAAP -Unless otherwise IFRS or US GAAP is applied, additional documents are required in case of foreign issuers | -The Korea Accounting Institute (KAI), but FSC may request amendments if deemed necessary |
| Malaysia | -Malaysia Accounting Standard Board, which is based on and consistent with IFRS | -Malaysia Accounting Standard Board (MASB), which is overseen by the Financial Reporting Foundation (FRF) |
| New Zealand | -New Zealand GAAP | -Accounting Standards Review Board |
| Pakistan | -IAS as per Companies Ordinance 1984, except those which are not deemed relevant for Pakistani economy | -Institute of Chartered Accountants of Pakistan (ICAP) |
| The Philippines | -International Accounting Standards (corporate bonds) and New Government Accounting System which moving towards IAS (government bonds) | -SEC (corporate bonds) and Commission on Audit (COA) |
| Singapore | -Singapore’s Financial Reporting Standards, IFRS or US GAAP Others may be approved on a case-by-case basis | -Council on Corporate Disclosure and Governance, under the supervision of the Accounting and Corporate Regulatory Authority |
| Sri Lanka | -Sri Lanka Accounting Standards | -Sri Lanka Institute of Chartered Accountants, which is supervised by the Sri Lanka Accounting & Auditing Standards Monitoring Board (SLAASMB) |
| Thailand | -Thai Accounting Standards (TAS), which based on IFRS | -Institution of Certified Accountants and Auditors of Thailand (ICAAT), under the approval of the Board of Accounting, which is under the Ministry of Commerce |

(2) Auditing Standards

Similar to accounting standards, most auditing standards are set up by professional bodies while auditors are subject to oversight by self-regulatory bodies (except in the Philippines and Chinese Taipei where only regulator does oversight function), as well as securities regulators in case of China, Indonesia, Japan and Thailand. China is the only jurisdiction where auditors are jointly overseen by three agencies *i.e.* MoF, CSRC, and CICPA. In Hong Kong, the qualified accountants conduct the auditing in accordance with the Statements of Auditing Standards (“SASs”) under the Professional Accountants Ordinance. Also Hong Kong is in the process of setting up and Independence Investigation Board (“IIB”) to investigate complaints of alleged accounting and auditing. Indonesia uses Public Accountant Professional Standards as its auditing standards; Indonesian Capital Market Supervisory Agency together with Directorate General of Financial Institution oversight auditors. Japan requires that the auditing should be conducted based on the standards set by the Business Accounting Council and the guidelines prepared by the Japan Institute of Certified Public Accountants (“JICPA”); the Certified Public Accountants and Auditing Oversight Board (“CPAFOB”) and the FSA are responsible for oversight of auditors. Thailand also requires auditors of public issuers to register with the Securities and Exchange Commission.

Many auditing standards, such as those in Hong Kong, Japan, Korea and Thailand, are set consistently with international auditing standards. Hong Kong’s SASs is closely modelled on International Standards of Auditing (“ISA”). Korea’s and Thailand’s standards, meanwhile, follow the standards of the International Federation of Accountants (“IFAC”). The Korean Institute of Certified Public Accountants establishes Korea Auditing Standards with an approval of the FSC.

The Philippines and Singapore are more open to accepting international auditing standards, *i.e.* IAS (the Philippines), and US GAAP and ISA (Singapore), directly. The Accounting and Corporate Regulatory Authority is responsible for oversight on auditors and the accounting standards in Singapore, whilst the SEC and Commission on Audit do so in the Philippines.

[Table 21] Auditing standards, setting bodies and oversight bodies

| Jurisdiction | Auditing standards | Organisations that set the auditing standards | Organisations that oversight auditors |
|---------------------|--|--|--|
| China | Independent Auditing Standards | Chinese Institute of Certified Public Accounts | MoF, CSRC, and CICPA jointly oversee auditors |
| Chinese Taipei | Follows “Statements of Financial Accounting Standards” | Accounting Research and Development Foundation | Securities and Futures Bureau |
| Hong Kong | Statements of Auditing Standards (SASs) | Hong Kong Institute of Certified Public Accountants (HKICPA) | HKICPA is a self-regulatory organisation |
| Indonesia | Public Accountants Professional Standard (SRAP) | Indonesian Accounting Standard (IAI) and Bapepam | Bapepam and Directorate General of Financial Institution (DJFI) |
| Japan | Auditing standard set by the Business Accounting Council | Business Accounting Council | Certified Public Accountants and Auditing Oversight Board (CPAFOB) and FSA |
| Korea | Korean Auditing Standards | Korean Institute of Certified Public Accountants (KICPA) | Financial Supervisory Commission |
| Malaysia | Malaysian Approved Standards on Auditing (MASA) | Malaysian Institute of Accountants (MIIA) | Malaysian Institute of Accountants (MIIA) |
| New Zealand | New Zealand Auditing Standards | Institute of Chartered Accountants of New Zealand (ICANZ) | ICANZ |

| Jurisdiction | Auditing standards | Organisations that set the auditing standards | Organisations that oversight auditors |
|---------------------|--|---|--|
| Pakistan | Relevant provisions of Companies Ordinance 1984 and International Standards of Auditing | IAS set by International Auditing and Assurance Standards Board | Institute of Chartered Accountants of Pakistan (ICAP) |
| The Philippines | International Accounting Standards (corporate bonds), and New Government System (government bonds) | SEC (corporate bonds), and COA (government bonds) | SEC (corporate bonds), and COA (government bonds) |
| Singapore | Singapore, US GAS or International Standards of Auditing | Institute of Certified Public Accountants of Singapore | Accounting and Corporate Regulatory Authority |
| Sri Lanka | Sri Lanka Auditing Standards | Institute of Chartered Accountants of Sri Lanka | Sri Lanka Accounting & Auditing Standards Monitoring Board (SLAASMB) |
| Thailand | Thai Auditing Standard | Institute of Certified Accountant and Auditors of Thailand | Board of Auditing |

4. Regulations and Oversight

(1) Regulatory and Oversight Bodies

Regulatory bodies responsible for market supervision and oversight of government and corporate bond markets vary from one jurisdiction to another. Classifications of their supervision can be seen from the dimensions of either 1) government bond vs. corporate bond markets, 2) primary vs. secondary markets, or 3) over-the-counter vs. exchange-traded markets. However, most jurisdictions use a combination of some of those mentioned (see Table 22 Regulators of bond markets).

Some jurisdictions have the same regulatory bodies responsible for market supervision, based on the functional work, irrespective of market segments-government or corporate bond market. For instance, Japan has the Financial Services Agency responsible for planning, supervision and inspection, and the Securities and Exchange Surveillance Commission responsible for inspection and market surveillance. Korea has the Ministry of Finance responsible for legislation and revision of bond market regulations, and the Financial Supervisory Commission/the Financial Supervisory Service responsible for revision of subordinate regulations including KSE's regulations.

Whilst a model of China somewhat combines the functional work and market segment, *i.e.* there is NDRC responsible for corporate bond issuance approval, MoF responsible for drafting policies and regulations on T-bills, PBoC responsible for setting corporate bond interests and interbank market regulations, and CSRC responsible for the trading of all exchange-traded bonds, both corporate and government bonds.

[Table 22] Regulators of bond markets

| Jurisdiction | Corporate bonds | | Government bonds | |
|---------------------|---|-------------------------|-------------------------|-------------------------|
| | Primary market | Secondary market | Primary market | Secondary market |
| China | National Development and Reform Commission (NDRC), China Securities Regulatory Commission (CSRC), and People's Bank of China (PboC) joint regulate the corporate bond market. | | MoF, PboC, and CSRC | |

| Jurisdiction | Corporate bonds | | Government bonds | |
|-----------------|--|---|--|---|
| | Primary market | Secondary market | Primary market | Secondary market |
| Chinese Taipei | Securities and Futures Bureau under Financial Supervisory Committee and GreTai Securities Market | | | |
| Hong Kong | Unlisted bonds: Securities and Futures Commission Listed bonds: The Stock Exchange of Hong Kong Limited | Exchange traded transactions: Securities and Futures Commission and Stock Exchange of Hong Kong OTC transactions are not regulated | Hong Kong Monetary Authority | OTC transactions: Hong Kong Monetary Authority Exchange traded transactions: Securities and Futures Commission and Stock Exchange of Hong Kong |
| Indonesia | Baepam | | Bank Indonesia | Baepam |
| Japan | Financial Services Agency and Securities and Exchange Surveillance Commission | | | |
| Korea | Ministry of Finance and Economy, Financial Supervisory Commission and Financial Supervisory Service | | | |
| Malaysia | Securities Commission | Securities Commission and Bank Negara Malaysia | Bank Negara Malaysia | |
| New Zealand | Securities Commission and NZX, the latter regulates issuers that have bonds quoted on the NADX | | Securities Commission | |
| Pakistan | Stock exchanges as the frontline regulators and SEC as the apex regulator | | - | |
| The Philippines | Securities and Exchange Commission | | Securities and Exchange Commission, and the Central Bank | |
| Singapore | Monetary Authority of Singapore | | Monetary Authority of Singapore | |
| Sri Lanka | Securities and Exchange Commission | | - | - |
| Thailand | Securities and Exchange Commission | | Bank of Thailand and Ministry of Finance | Securities and Exchange Commission |

(2) Self-Regulatory Organisations

There is absence of self-regulatory organisation (SRO) in four jurisdictions *i.e.* Hong Kong, Malaysia, New Zealand and Singapore. Meanwhile, the rest that SROs exist are China, Chinese Taipei, Indonesia, Japan, Korea, Pakistan, the Philippines and Thailand. Having said that, China and the Philippines have SROs for one market segment only, *i.e.* for government bond market, and for corporate bond market, respectively.

China's SRO is the National Debt Association of China. Surabaya Stock Exchange ("SSX") and HUMDASUN are the SROs in Indonesia. In Japan, Japan Securities Dealers Association ("JSDA") and three exchanges (in Tokyo, Nagoya and Osaka) where corporate and government bonds may be listed, act as SROs. In Korea, the Korea Stock Exchange ("KSE"), the Korea Securities Dealers Association ("KSDA") and the Korea Securities Depository ("KSD") are the SROs. The Philippine Stock Exchange is an SRO in the Philippines, likewise the Chinese Securities Association in Chinese Taipei. In Thailand, Thai Bond Dealing Centre ("ThaiBDC") has been encouraged to enhance its role as an SRO in monitoring and performing market surveillance and field examination.

Stock exchanges in Pakistan primarily regulate compliance with listing requirements for bonds and trading activities in the secondary market.

Most of SROs perform as the industry forum in promoting best market practices, executing self-regulatory disciplinary actions, as well as acting as information centres.

[Table 23] Self-regulatory organisations of bond markets

| Jurisdiction | Corporate bonds | Government bonds |
|---------------------|--|------------------------------------|
| China | - | National Debt Association of China |
| Chinese Taipei | Chinese Securities Association, with mission to protect investors, promotes national economic development, and coordinates among government and members. | |
| Hong Kong | - | - |
| Indonesia | Surabaya Stock Exchange | HUMDASUN |
| Japan | Japan Securities Dealers Association, stock exchanges (Tokyo, Osaka and Nagoya) | |
| Korea | Korea Stock Exchange, Korea Securities Dealers Association, Korea Securities Depository | |
| Malaysia | - | - |
| New Zealand | - | - |
| Pakistan | Stock exchanges (Karachi, Lahore and Islamabad) | - |
| The Philippines | Philippine Stock Exchange | - |
| Singapore | - | - |
| Sri Lanka | Colombo Stock Exchange for listed corporate bonds of listed companies | |
| Thailand | Thai Bond Dealing Centre being encouraged to increase SRO roles | |

VI. CONCLUSION

In general, the survey findings reveal that levels of the development of domestic bond markets in the Asia Pacific region vary. There are many areas that need to be improved in several jurisdictions.

In the primary market, some jurisdictions do not have systematic patterns for the issuance of government bonds while some do. The systematic patterns in which the regular issuance with pre-announced calendar for auctions and issuance plans available are significant. This facilitates the construction of government bond benchmark yield in each market so that corporate issuers and investors can use this benchmark yield as their reference rates in financing and investing respectively.

Next, in the secondary market where market liquidity is of essence, infrastructures and mechanisms in place in some jurisdiction may not be sufficiently efficient. The effect of settlement system especially for corporate bonds traded in some OTC markets still relies on physical certificates, not electronic book-entry transfer, with no centre for clearing and settlement. This could materially obstruct transactions in which majority of trades occur in the OTC market.

The existing system of primary dealers in most jurisdictions is varied both in terms of their obligations and privileges. Some jurisdictions have them performed as market makers with the requirement of making two-way firm price quotation while some do not. Additionally, only primary dealers in some jurisdictions have exclusive right to access the government auction market. Such variation in the primary dealer system results in different benefits each jurisdiction obtains from the system.

Also, information transparency in some bond markets could be viewed insufficient. Bond markets are a wholesale market where most players are intermediaries and institutional investors. These groups of market participants access more information than retail investors. Only a few jurisdictions have relieved this problem by arranging public facilities.

Finally, the structure of supervision and oversight in most jurisdictions seems rather complex as each domestic bond market is fragmented into the market for corporate and government bonds with multiple authorities, multiple governing laws and private organisations involved.

In conclusion, domestic bond markets in the region are in different development stages. Some are more advanced than others. However, there is still much more room for every single market to be further developed till each market can function effectively. To do so, the proper identification and prioritisation of necessary measures to put in place by each market are of essence to achieve effective results. More importantly, strong regional cooperation through sharing of expertise and experiences would possibly help shorten the development periods each of those markets may take on its own naturally.

(Note 1)

Pakistan and Sri Lanka provided information on corporate bonds only.

(Note 2)

Corporate bonds include straight bonds, equity bonds (*e.g.* convertible bonds) and ABS, where available, unless otherwise stated. Here is the further special classification of corporate bonds in each jurisdiction:

| | |
|------------------|--|
| China: | Central corporations and sub-national corporations. |
| Hong Kong: | Authorised institutions, local corporations and non-MDB overseas borrowers. |
| Indonesia: | Syariah bonds are also included in the category of corporate bonds. |
| Japan: | Bank debenture is not in the category of corporate bonds here. |
| Malaysia: | In the category of “corporate bonds” include ABS, loan notes, loan stocks, medium term notes and others. In the breakdown of the corporate bonds, equity bonds include bonds with warrants, convertible bonds and Islamic bonds; and ABS includes ABS and medium term notes. |
| The Philippines: | Small Denominated Treasury (SDT) bonds, straight bonds |

The data of government bonds in Hong Kong in the charts and table in this report are the one of the “exchanges fund bills and notes”.

(Note 3)

The data of each jurisdiction are constituted by the following categories of bonds.

| | |
|------------------|--|
| China: | Government bonds, government agency bonds and corporate bonds. |
| Chinese Taipei: | Government bonds, financial debentures, corporate bonds and foreign bonds. |
| Hong Kong: | Exchange fund bills and notes, statutory bodies (including government-owned corporate), multilateral development banks (MDBs), non-MDB overseas borrowers, corporate (authorized institutions and local corporate) bonds. |
| Japan: | Government bonds, government agency bonds, municipal bonds, corporate bonds and others (samurai bonds, bank debentures, etc). The Japan’s figures indicate the total size of the market. |
| Korea: | Government bonds, municipal bonds, government agency bonds (special purpose bonds, monetary stabilization bonds by BOK), financial institution bonds and corporate bonds. |
| Malaysia: | Government bonds (Malaysian government securities, government investment issues which is the government bills issued according to Islamic principles, Malaysian treasury bills, Bank Negara bills, Malaysian savings bonds), government agency bonds (Khazanah bonds, Danamodal bond and Danaharata bonds), corporate bonds and others (bonds, notes and Islamic financial instruments issued by Cagamas Bhd., etc.) |
| The Philippines: | Government bonds and corporate bonds |

[Appendix] Abbreviation List

| Alphabet | Abbreviation | Jurisdiction | Full Name |
|----------|--------------|-----------------|---|
| A | ABS | General | Asset-backed securities |
| A | ACRA | Singapore | The Accounting and Corporate Regulatory Authority |
| A | ADAs | Malaysia | Authorised depository Agents |
| A | ADI | Malaysia | Authorised depository Institution |
| A | ASBJ | Japan | Accounting Standards Board of Japan |
| A | ASRB | New Zealand | Accounting Standards Review Board |
| B | BAHTNET | Thailand | Bank of Thailand High Value Fund Transfer Network |
| B | BAP | The Philippines | Bankers Association of the Philippines |
| B | BEX | Thailand | Bond Electronic Exchange |
| B | BI | Indonesia | Bank Indonesia |
| B | BIDS | Malaysia | Bond Information and Dissemination System |
| B | BI-SKRIP | Indonesia | Bank Indonesia-Scripless Securities Settlement System |
| B | BI-SSSS | Indonesia | the Bank Indonesia Scripless Securities Settlement System |
| B | BOJ | Japan | Bank of Japan |
| B | BOJ-Net | Japan | Bank of Japan Financial Network System |
| B | BOT | Thailand | Bank of Thailand |
| B | BSP | The Philippines | Bangko Sentral ng Pilipinas |
| B | BTr | The Philippines | Bureau of the Treasury |
| C | CCASS | Hong Kong | Central Clearing and Settlement System |
| C | CDC | Pakistan | Central Depository Company of Pakistan Limited |
| C | CDS | General | Central Depository System |
| C | CDS | Pakistan | Central Depository System |
| C | CFETS | China | China Foreign Exchange Trading Center & National Interbank Funding Center |
| C | CGSDTC | China | China Government Securities Depository Trust & Clearing Co. Ltd |
| C | CICPA | China | Chinese Institute of Certified Public Accounts |
| C | CMU | Hong Kong | Central Moneymarkets Unit |
| C | COA | The Philippines | Commission on Audit |
| C | COD | New Zealand | Claim of Delivery |
| C | CSDC | China | China Securities Depository & Clearing Co. Ltd |
| C | CSE | Sri Lanka | Colombo Stock Exchange |
| C | CSRC | China | China Securities Regulatory Commission |
| C | CVT | Pakistan | Capital Value Tax |
| D | DA | Singapore | Depository Agent |
| D | DBR | Malaysia | Disclosure-based regulation |
| D | DCSS | Singapore | Debt Securities Clearing Settlement System |
| D | DJFI | Indonesia | Directorate General of Financial Institution |
| D | DTA | General | Double Taxation Agreement |
| D | DTC | Hong Kong | the Depository Trust Company |
| D | DVP | General | Delivery-versus-payment |
| E | EBTS | Chinese Taipei | Electronic Bond Trading System |
| F | FASF | Japan | Financial Accounting Standards Foundation |
| F | FAST | Malaysia | The Fully Automated System for Issuing/Tendering |
| F | FILP Bond | Japan | Fiscal Investment and Loan Program Bonds |
| F | FRF | Malaysia | The Financial Reporting Foundation |
| F | FRS(S) | Singapore | Financial Reporting Standards (Singapore) |
| F | FSA | Japan | Financial Services Agency |
| F | FSC | Korea | The Financial Supervisory Commission |
| F | FSS | Korea | The Financial Supervisory Service |

| Alphabet | Abbreviation | Jurisdiction | Full Name |
|----------|--------------|-----------------|---|
| G | GBM | Korea | Government Bonds Market |
| G | GS | The Philippines | Government securities |
| G | GS | The Philippines | Government securities |
| G | GSEDs | The Philippines | Government Securities Eligible Dealers |
| H | HIBOR | Hong Kong | Hong Kong Interbank Offered Rate |
| H | HIMDASUN | Indonesia | Inter Dealer Market Association Government Securities |
| H | HKFRS | Hong Kong | Hong Kong Financial Reporting Standards |
| H | HKICPA | Hong Kong | Hong Kong Institute of Certified Public Accountants |
| H | HKMA | Hong Kong | The Hong Kong Monetary Authority |
| H | HKSA | Hong Kong | Hong Kong Society of Accountants |
| H | HKSCC | Hong Kong | The Hong Kong Securities Clearing Company |
| I | IAASB | Pakistan | International Auditing and Assurance Standards Board |
| I | IAI | Indonesia | Indonesian Accounting Standard |
| I | ICAAT | Thailand | The Institute of certified accountants and auditors of Thailand |
| I | ICANZ | New Zealand | Institute of Chartered Accountants of New Zealand |
| I | ICAP | Pakistan | Institute of Chartered Accountants of Pakistan |
| I | ICSD | General | international central securities depositories |
| I | IDBs | General | Inter-dealer brokers |
| I | IDMA GS | Indonesia | Inter dealer market association government securities |
| I | IFAC | General | International Federation of Accountants |
| I | IFCT | Thailand | The Industrial Finance Corporation of Thailand |
| I | IFRS | General | International Financial Reporting Standard |
| I | IGSTS | Indonesia | Indonesian Government Securities Trading System |
| I | IIB | Hong Kong | Independent Investigation Board |
| I | IRS | General | interest rate swap |
| I | ISE | Pakistan | Islamabad Stock Exchange |
| J | JB Net | Japan | Japan Bond Settlement Network Co., Ltd. |
| J | JGB | Japan | Japanese Government Bond |
| J | JICPA | Japan | Japan Institute of Certified Public Accountants |
| J | JSDA | Japan | Japan Securities Dealers Association |
| J | JSDC | Japan | Japan Securities Depository Center |
| K | KAI | Korea | The Korea Accounting Institute |
| K | KBW | Singapore | Keefe, Bruyette & Woods |
| K | KIBOR | Pakistan | Karachi Inter Bank Offered Rate |
| K | KICPA | Korea | The Korean Institute of Certified Public Accountants |
| K | KSD | Korea | Korea Securities Depository |
| K | KSDA | Korea | The Korea Securities Dealers Association |
| K | KSE | Korea | Korean Stock Exchange |
| K | KSE | Pakistan | Karachi Stock Exchange |
| L | LIBOR | General | London interbank offered rate |
| L | LSE | Pakistan | Lahore Stock Exchange |
| M | MART | The Philippines | Money Market Association of the Philippines |
| M | MAS | Singapore | Monetary Authority of Singapore |
| M | MASA | Malaysia | The Malaysian Approved Standards on Auditing |
| M | MASB | Malaysia | The Malaysian Accounting Standard Board |
| M | MCD | Malaysia | The Malaysian Central Depository |
| M | MEPS | Singapore | MAS Electronic Payment System |
| M | MGS | Malaysia | Malaysian government securities |
| M | MIA | Malaysia | Malaysian Institute of Accountants |
| M | MLR | General | Minimum lending rate |
| M | MoF | China | Ministry of Finance |

| Alphabet | Abbreviation | Jurisdiction | Full Name |
|----------|--------------|-----------------|---|
| M | MOF | Japan | Ministry of Finance |
| M | MOFE | Korea | The Ministry of Finance and Economy |
| M | MRAC | Malaysia | Malaysia Rating Corporation |
| M | MTN | General | Medium Term Note |
| N | NAV | General | Net Asset Value |
| N | NCB | General | Non-competitive bid |
| N | NCCPL | Pakistan | National Clearing Company of Pakistan Limited |
| N | NCSS | Pakistan | National Clearing and Settlement System |
| N | NDAC | China | National Debt Association of China |
| N | NDRC | China | National Development and Reform Commission |
| N | NGAS | The Philippines | New Government Accounting System |
| N | NPC | China | National People's Congress |
| N | NRWT | New Zealand | Non-resident withholding tax |
| N | NZCSD | New Zealand | New Zealand Central Securities Depository Limited |
| N | NZDMO | New Zealand | The New Zealand Debt Management Office |
| N | NZDX | New Zealand | New Zealand Exchange's Debt market |
| N | NZX | New Zealand | New Zealand Exchange |
| O | OBM | Korea | Ordinary Bonds Market |
| O | OTC | General | Over-the-counter |
| P | PACRA | Pakistan | Pakistan Credit Rating Agency |
| P | PAO | Hong Kong | The Professional Accountants Ordinance |
| P | PBoC | China | People's Bank of China |
| P | PD | Singapore | Primary Dealers |
| P | PDS | Malaysia | Private Debt Securities |
| P | PDTC | The Philippines | Philippine Depository and Trust Corporation |
| P | PIPU | Indonesia | The Money Market Center |
| P | PSAK | Indonesia | Financial Accounting Standard |
| P | PT KSEI | Indonesia | Indonesian Central Securities Depository (also CSD) |
| Q | QDS | Singapore | Qualifying Debt Securities |
| R | RA | The Philippines | Republic Act |
| R | RAM | Malaysia | Rating Agency Malaysia |
| R | RBNZ | New Zealand | The Reserve Bank of New Zealand |
| R | RD | General | Recognised Dealer |
| R | RENTAS | Malaysia | The Real Time Electronic Transfer of Funds and Securities |
| R | Ross | The Philippines | Registry of Scripless Securities |
| R | RTGS | General | Real Time Gross Settlement |
| S | SASs | Hong Kong | Statements of Auditing Standards |
| S | SBL | General | Securities borrowing and lending |
| S | SC | Malaysia | The Securities Commission |
| S | SCA | Malaysia | Securities Commission Act |
| S | SDT Bonds | The Philippines | Small Denominated Treasury Bonds |
| S | SEC | Thailand | Securities and Exchange Commission |
| S | SEC Act | Thailand | The Securities and Exchange Act B.E. 2535 |
| S | SECP | Pakistan | Securities and Exchange Commission of Pakistan |
| S | SEHK | Hong Kong | the Stock Exchange of Hong Kong |
| S | SEL | Japan | Securities and Exchange Law |
| S | SET | Thailand | Stock Exchange of Thailand |
| S | SFA | Singapore | The Securities and Futures Act |
| S | SFB | Chinese Taipei | Securities and Futures Bureau |
| S | SFC | Hong Kong | The Securities and Futures Commission |
| S | SFC | Korea | The Securities and Futures Commission |
| S | SGS | Singapore | Singapore Government Security |

| Alphabet | Abbreviation | Jurisdiction | Full Name |
|----------|--------------|-----------------|--|
| S | SIA | Malaysia | The Securities Industries Act 1983 |
| S | SLAASMB | Sri Lanka | Sri Lanka Accounting & Auditing Standards Monitoring Board |
| S | SPAP | Indonesia | Public Accountant Professional Standard |
| S | SPV | General | special purpose vehicle |
| S | SRC | The Philippines | Securities Regulation Code |
| S | SRO | General | Self-regulatory organisation |
| S | SSX | Indonesia | Surabaya Stock Exchange |
| T | TAS | Thailand | Thai Accounting Standard |
| T | TB | China | Treasury Bond |
| T | ThaiBDC | Thailand | Thai Bond Dealing Centre |
| T | TRIS | Thailand | TRIS Rating Co. Ltd. |
| T | TSCD | Chinese Taipei | Taiwan Securities Central Depository |
| T | TSE | Chinese Taipei | Taiwan Stock Exchange |
| W | WDP | Indonesia | Audited Financial Report with Qualified Opinion |