



The Thai Bond Market Association

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First Published 2007

- Published by** : The Thai Bond Market Association
21st Floor, 29 Vanissa Building, Soi Chidlom
Ploenchit Road, Bangkok 10330, Thailand
Tel. (66 2) 252-3336 Fax. (66 2) 252-2763
<http://www.thaibma.or.th> ; <http://www.thaibond.com>
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Voravuth Srisasi
- ISBN** : 978-974-09-0629-2
- Printed by** : Amarin Printing and Publishing Public Company Limited
65/16 Chaiyaphruk road, Talingthan, Bangkok 10170
Tel. (66 2) 882-1010, (66 2) 422-9000
Fax. (66 2) 433-2742, (66 2) 434-1385
E-Mail: info@amarin.co.th
Homepage: <http://www.amarin.co.th>
- Edition** : 1,000 copies

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Ten years after the Asian financial crisis, many countries including Thailand have made considerable progress in strengthening their financial systems and promoting a more balanced financial structure to effectively accommodate growth of the real sector.

Realizing the necessity to develop a bond market of equal importance to the other two sources of financing, namely, the equity market and the loan market; the Thai Government has actively promoted the development of the Thai bond market through collaborative efforts between the public and private sectors over the past decade. Although the rapid expansion of Thai bond market in the aftermath of the crisis was primarily induced by the huge financing needs in order to rehabilitate the hard-hit financial sector, the authorities have managed to issue substantial amount of public-sector debt securities on a regular basis in the market and hence enabled the creation of the market benchmark, which is a key contributor to the development of a more mature bond market.

Concerted efforts have also been made to bring about necessary infrastructure to support a modern, efficient, fair and trustworthy bond market. These include the information system, clearing and settlement mechanism, etc. As a result,

the Thai bond market has become not only an attractive source of alternative investment for foreign investors but also a marketplace for foreign issuers to issue local currency bonds. Such achievements will combine to facilitate the broader and deeper development of the Thai bond market.

This book is designed to cover various aspects of the Thai bond market including the evolution of the market, current structure, market infrastructure, related legal and regulatory framework, as well as prospects and future challenges. We hope that it will serve as a useful guide for investors, prospective issuers, and the interested public to better understanding the Thai bond market and encourage wider market participation.

A handwritten signature in black ink, appearing to read 'Nattapol'.

Nattapol Chavalitcheevin
President
The Thai Bond Market Association

ACKNOWLEDGEMENT

We would like to express our deepest gratitude to the Public Debt Management Office, Ministry of Finance, for supporting the publication of this book.

CONTENTS

CHAPTER 1: The Thai Financial Market 11

- 1.1 Overview 12
- 1.2 Loan Market 17
- 1.3 Equity Market 37
- 1.4 Bond Market 51
- 1.5 Derivatives Market 55

CHAPTER 2: The Thai Bond Market 61

- 2.1 Brief History 62
- 2.2 Size and Composition 66
- 2.3 Products 70
- 2.4 Market Structure 81
 - Primary Market 82
 - Secondary Market 87
- 2.5 Market Players 91

CHAPTER 3: Legal and Regulatory Framework 101

- 3.1 Related Regulatory Bodies 102
- 3.2 Key Legislation Related to the Thai Bond Market 116
- 3.3 Domestic Bond Market Development Committee 118
- 3.4 Self –Regulatory Organization (SRO) 121

CHAPTER 4: Infrastructure of Thai Bond Market 129

- 4.1 Credit Rating Agency 131
- 4.2 Trading System 135
- 4.3 Clearing and Settlement 139

4.4 Registrar	142
4.5 Custodian	144
4.6 Bondholders' Representative	145
4.7 Bond Pricing Agency	146
4.8 Bond Information Center	150
CHAPTER 5: Taxation	153
CHAPTER 6: Internationalization of The Thai Bond Market	163
6.1 Foreign Capital Flows	165
6.2 Foreign Investment in Thai Bond Market	167
6.3 Baht-Denominated Bonds Issued by Foreign Issuers	173
6.4 Asian Bond Funds	176
CHAPTER 7: Prospects and Future Challenges	181
7.1 Thai Bond Market vs. Global Bond Markets	182
7.2 Impediments to the Thai Bond Market	186
7.3 Recent Developments	192
7.4 Future Challenges	196
Annex 1: Statistical Tables	199
Annex 2: Members of the ThaiBMA	213
Annex 3: Thai Bond Market's Related Organizations	225
Bibliography	229

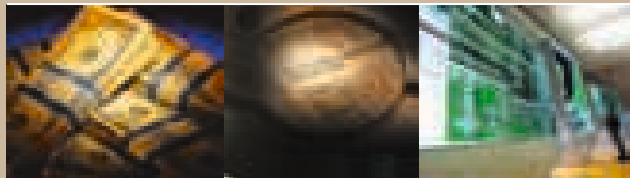
ABBREVIATIONS

ABF	Asian Bond Fund
ACN	Asian Currency Note
ADB	Asian Development Bank
AFET	Agricultural Futures Exchange of Thailand, The
AFTC	Agricultural Futures Trading Commission, The
AIMC	Association of Investment Management Companies, The
BAAC	Bank for Agriculture and Agricultural Cooperatives, The
BDC	Bond Dealers' Club
BEX	Bond Electronic Exchange, The
BIBOR	Bangkok Interbank Offered Rate
BIS	Bank for International Settlements
BOT	Bank of Thailand
BSE	Bangkok Stock Exchange
CAPS	Capital Augmented Preferred Shares
CCIRS	Cross Currency Interest Rate Swaps
CLN	Credit-Linked Note
CMA	The Capital Market Academy
CRA	Credit Rating Agency
DAD	Dhanarak Asset Development Company Limited
DW	Derivative Warrants
EMEAP	Executives Meeting of East Asia-Pacific Central Banks
EMTN	Euro-Medium Term Note
ETF	Exchange Traded Fund
ETP	Electronic Trading Platform
EXIM Thailand	Export Import Bank of Thailand, The
FIDF	Financial Institution Development Fund, The
FIF	Foreign Investment Fund

FIRSTs	Fixed Income and Related Securities Trading System
Fitch	Fitch Ratings (Thailand) Limited
FPO	Fiscal Policy Office, The
FRA	Forward Rate Agreement
FSMP	Financial Sector Master Plan
GHB	Government Housing Bank, The
GSB	Government Savings Bank, The
IDB	Inter-Dealer Broker
IFCT	Industrial Finance Corporation of Thailand, The
IRS	Interest Rate Swap
JBIC	Japan Bank for International Cooperation
LB	Loan Bond
mai	Market for Alternative Investment
MLR	Minimum Lending Rate
MPB	Monetary Policy Board
MPC	Monetary Policy Committee
MOF	Ministry of Finance
NAV	Net Asset Value
NPL	Non-Performing Loan
NVDR	Non-Voting Depository Receipt
OTC	Over-the-Counter
PAIF	Pan-Asian Bond Index Fund
PD	Primary Dealer
PDMO	Public Debt Management Office, The
PEA	Provincial Electricity Authority
RD	Revenue Department, The
RMF	Retirement Mutual Funds

RSS3	Ribbed Smoked Rubber Sheet No.3
RTG	Royal Thai Government, The
RTGS	Real Time Gross Settlement
SB	Saving Bond
SEC	Securities and Exchange Commission, The
SEC Act	Securities and Exchange Act B.E. 2535 (1992), The
SET	Stock Exchange of Thailand, The
SFIs	Specialized Financial Institutions
SIFC	Small Industry Finance Corporation, The
SIFO	Small Industries Finance Office, The
SLIPS	Stapled Limited Interest Preferred Shares
SMC	Second Mortgage Corporation
SME Bank	Small and Medium Enterprise Development Bank of Thailand, The
SMEs	Small- and Medium-sized Enterprises
SOE Bonds	State-owned Enterprise Bonds
SRO	Self Regulatory Organization
TFEX	Thai Futures Exchange Public Company Limited
Thai NVDR	Thai NVDR Company Limited
ThaiBDC	Thai Bond Dealing Center, The
ThaiBMA	Thai Bond Market Association, The
THB	Thai Baht
TMAC	Thai Asset Management Corporation
T-Bills	Treasury Bills
TRIS	Thai Rating and Information Services Company Limited
TSD	Thailand Securities Depository Company Limited
TSI	Thailand Securities Institute

CHAPTER 1



THE THAI FINANCIAL MARKET



1.1 Overview

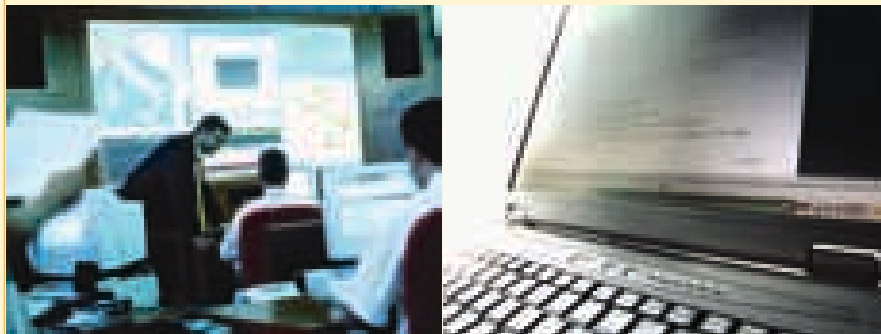
The Thai financial market is composed of three main components: loan market, equity market, and debt or bond market. The loan market has been the largest financing source for Thai business sector, dominating more than half of the financial market during 1992-2002. Commercial banks are by far the major players in the loan market; whereas other types of financial institutions include finance companies, credit foncier companies, life insurance companies and specialized financial institutions such as the Government Savings Bank, Bank for Agriculture and Agricultural Cooperatives, the Government Housing Bank, Small and Medium Enterprise Development Bank of Thailand, etc. There are also a number of non-bank financial institutions, i.e., savings cooperatives, credit card companies, and companies undertaking personal loan business.

Prior to the 1997 financial crisis, the loan market expanded rapidly due to excessive capital inflows induced by

the financial liberalization measures which had been introduced since early 1990's. There was a heavy reliance on credits from financial institutions during this period until the crisis erupted. The surge of non-performing loans and recapitalization needs forced financial institutions to curtail their lending operations. Consequently, credits extended by financial institutions contracted sharply during 1999-2001 and this exacerbated the economic slowdown due to limited alternative sources of financing. Thanks to the effective measures of crisis resolution, including the efforts of the authorities to address the problem of financial market imbalance and the fundamental reforms which are currently underway, a more balanced financial structure has taken shape since 2003 when the Thai economy enjoyed a turnaround from the crisis. As at the end of June 2007, the loan market accounted for 42% of the Thai financial market, representing approximately 92% of the nation's GDP.

The equity market accounted for 33% of the financial market, equivalent to approximately 73% of GDP as at the end of June 2007. The inception of the Thai stock market began as far back as 1962, when a private group established an



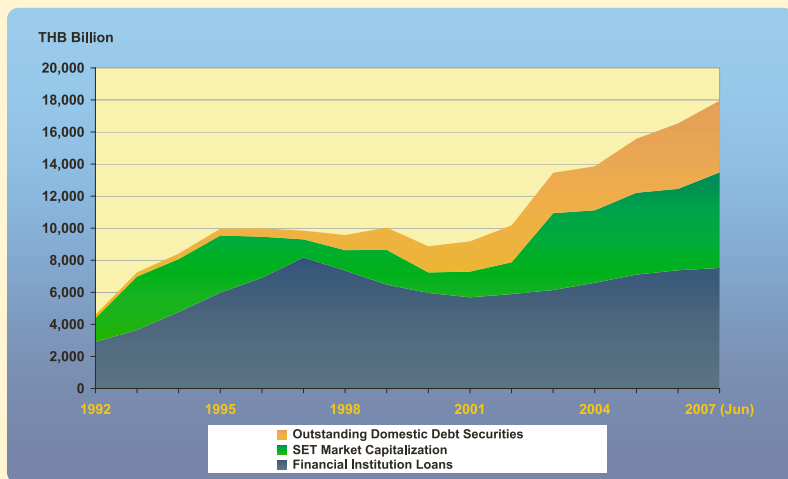


organized stock exchange under the name of “Bangkok Stock Exchange” (BSE). However, the first stock market of Thailand failed to succeed due to a lack of official government support and a limited investor understanding of the equity market at that time. BSE ceased operations eventually in early 1970’s. It was until 1974 when the legislation establishing “The Securities Exchange of Thailand” was enacted, followed by revisions to the Revenue Code in order to allow the investment of savings in the capital market. “The Securities Exchange of Thailand” or presently “The Stock Exchange of Thailand” (SET) began trading on April 30, 1975, with its market capitalization surging significantly over time, reaching THB 6,283 billion at the end of August 2007.

The debt or bond market is relatively small compared to the other two markets. Although the evolution of the Thai bond market began more than a century ago, the market had developed tardily until the past decade that a leapfrogging expansion has been witnessed. In the aftermath of the 1997

financial crisis, the Thai government had to mobilize substantial amount of funds to ameliorate the crisis through bond issuance. This stimulated the necessity of developing a well-functioning bond market in order to ensure a more balanced and stable financial system which is able to better withstand economic shocks. As a result, the bond market has grown rapidly, capturing 25% share of the total financial market, or equivalent to 55% of GDP as at the end of June 2007.

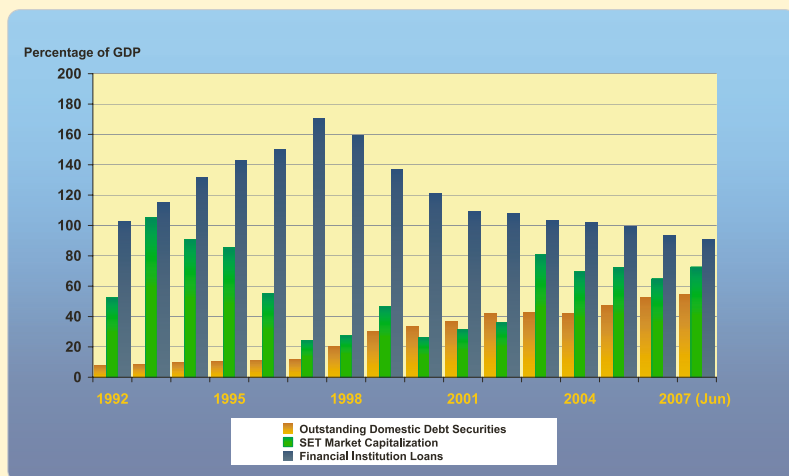
Figure 1.1
Structure of Thai Financial Market
(1992-June 2007)



Source: Bank of Thailand



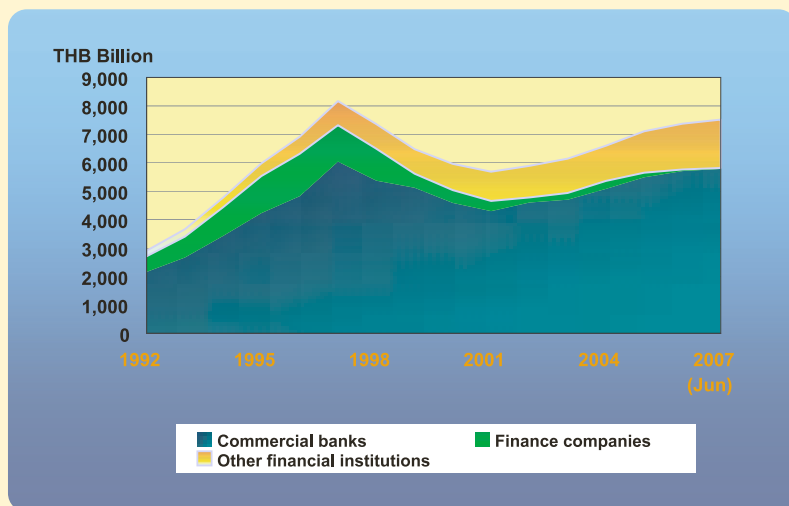
Figure 1.2
Size of Thai Financial Market
(1992-June 2007)



Sources: Bank of Thailand and the National Economic and Social Development Board.

1.2 Loan Market

Figure 1.3
Credits Extended by Financial Institutions
(1992-June 2007)



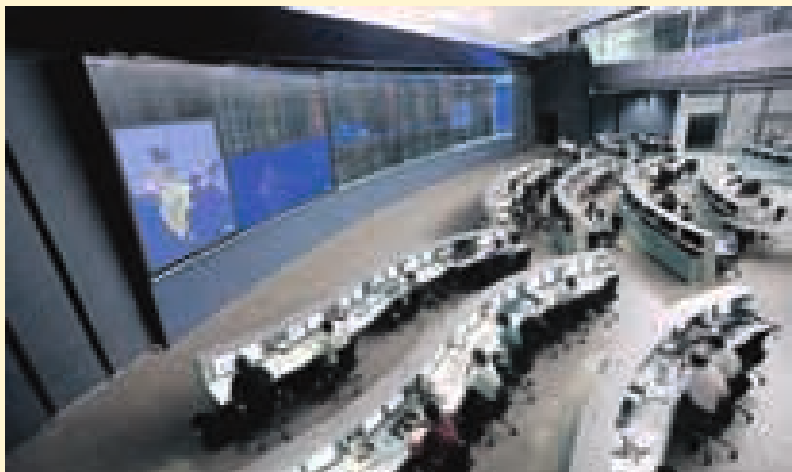
Source: Bank of Thailand

Note: Other financial institutions are credit foncier companies, insurance companies and specialized financial institutions comprising Government Savings Bank, Government Housing Bank, Bank for Agriculture and Agricultural Cooperatives, Export-Import Bank of Thailand, and Small and Medium Enterprise Development Bank of Thailand.



Commercial Banks

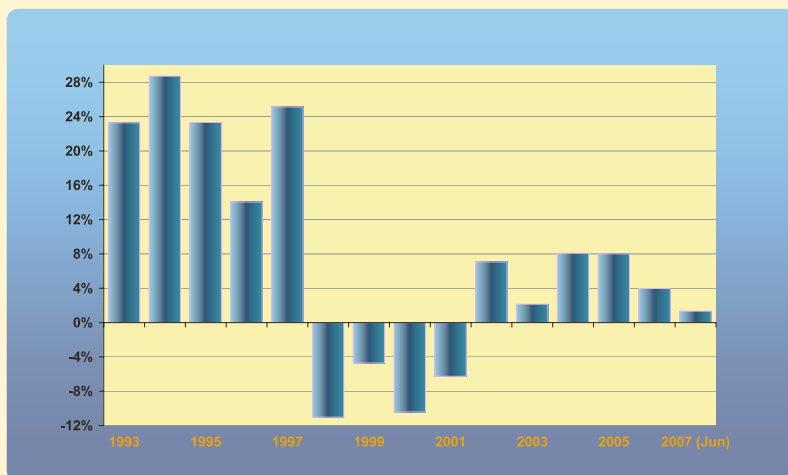
Commercial banks have long been an integral part of the Thai business community and are the largest player in the loan market. The commercial banking system began in Thailand in 1888 when the Hongkong and Shanghai Banking Corporation opened a branch in the country. This was followed suit by a number of foreign bank branches. It was not until 1906 when the first Thai bank, Siam Commercial Bank, was established. Foreign banks had dominated the Thai banking sector until the outbreak of World War II in 1939, when most foreign operations in Thailand were forced to close. Realizing the vital role of commercial banks in the economic development process, Thai authorities had since then introduced a protective policy to promote growth of local Thai banks, which in turn undermined the activities of foreign banks. Each foreign bank was restricted to only one branch office while foreign ownership of commercial banks in Thailand was limited to no more than 25% of shares sold. As a result, foreign banks were confined to mostly wholesale and offshore banking services. However, the situation changed after the liberalization of Thai banking sector in late 1997 when foreign banks were again allowed to be major shareholders in local Thai banks and thus able to expand their range of services.



During the economic and financial crisis which erupted in mid-1997, most commercial banks encountered the problem of high non-performing loans (NPLs) which was a result of imprudent credit extension, mismatching of funds, and imbalanced economic growth. Commercial banks during that period borrowed excessive offshore loans to lend domestically. When the crisis burst out, foreign creditors lost confidence and recalled the loans, causing most local businesses to suffer from a lack of liquidity, operating losses, and fell into bankruptcy eventually. As a consequence, the country experienced a credit crunch and NPLs mounted. In 1998, total NPLs of the Thai commercial banking system stood at THB 2,350 billion, or approximately 43% of the total loans, with many commercial banks facing the problem of capital inadequacy. To resolve the financial crisis, several measures were undertaken by

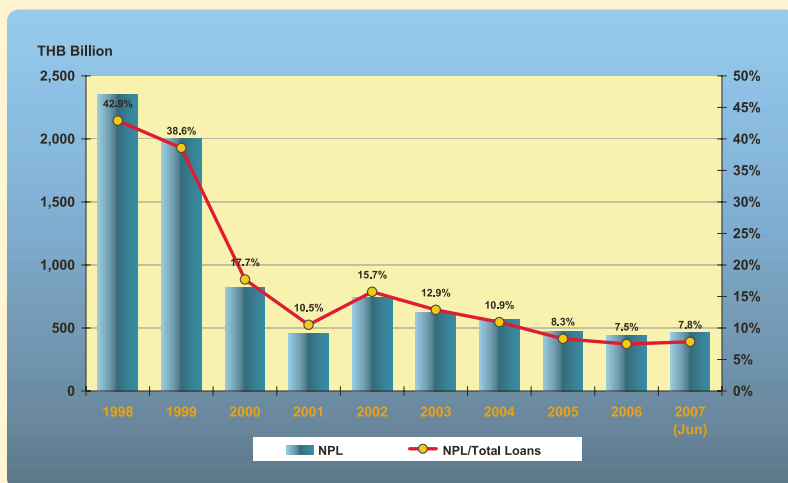
the authorities, for instance, acquisition of preferred shares issued by troubled banks in order to increase their capital, merger of ailing commercial banks and finance companies, setting up of a central asset management organization (the Thai Asset Management Corporation: TMAC) to manage impaired assets of financial institutions, etc. These financial rehabilitation measures had turned out successfully. The commercial banks' NPLs dropped significantly to the level of 10-15% of total loans during 2001-2004, and less than 10% thereafter.

Figure 1.4
Growth of Commercial Banks' Credits
(1993-June 2007)



Source: Bank of Thailand

Figure 1.5
NPLs of the Commercial Banking System
(1998-June 2007)



Source: Bank of Thailand

In 2004, the Ministry of Finance and the Bank of Thailand jointly formulated the Financial Sector Master Plan (FSMP) to enhance efficiency, stability and competition within the financial system and to provide the system with sufficient resiliency to withstand new competitive forces brought about through increasing financial and trade liberalization. Under the FSMP, a comprehensive package of policy measures is adopted to develop the financial sector. In particular, the commercial bank licensing regime is reformed to lessen regulatory arbitrage and



overlapping scopes of business. Accordingly, only two types of deposit-taking financial institutions are allowed to set up by the Bank of Thailand:

1. **Commercial banks** for qualified and well capitalized financial institutions. Such commercial banks may provide financial services to all groups of customers and carry out virtually all types of financial transactions, except insurance underwriting as well as brokering, trading and underwriting of equity securities.

2. **Retail banks** for qualified financial institutions with small capital requirement. Such retail banks offer financial services to retail customers and SMEs subject to lending limit per customer. They may provide virtually all types of financial transactions with the same exceptions as commercial banks, and are not permitted to conduct business related to foreign exchange and derivatives products.

Meanwhile, foreign-owned financial institutions are allowed to play a greater role in the economic and financial development of the country. There are two types of foreign bank licenses:

1. **Full branch**, enjoying the same scope of business as Thai commercial banks but with only one branch.

2. **Subsidiary**, enjoying the same scope of business as Thai commercial banks and are allowed to open four branches



in addition to one head office: one in the Bangkok Metropolis area and the remaining three outside.

In addition, the number of deposit-taking financial institutions within the same conglomerated is reduced under “One Presence” policy in order to reap full benefits from economy of scale.

Following the promulgation of notifications regarding rules and procedures concerning application for commercial bank license, branch or subsidiary of foreign bank, and One-Presence policy by the Bank of Thailand in January 2004, several financial institutions underwent a series of restructuring processes, including mergers and acquisitions, return of existing licenses, transfer of assets and liabilities, as well as capital increase, in order to meet the qualifications for obtaining the new banking license and/or comply with One-Presence policy



under the FSMP. In 2005, three new commercial banks and one retail bank were created either through the upgrade of status or through the merger between finance and credit foncier companies. They include TISCO Bank, Kiatnakin Bank, ACL Bank, and Land and House Retail Bank. In this same year, Standard Chartered Bank, Bangkok Branch and Standard Chartered Nakornthon Bank merged to form Standard Chartered Bank (Thai) Public Company Limited, while UOB Radanasin merged with Bank of Asia to become United Overseas Bank (Thai) Public Company Limited. Meanwhile, the International Commercial Bank of China was upgraded from a full branch of foreign bank to a subsidiary and was subsequently renamed MEGA International Commercial Bank Public Company Limited. Two retail banks were added to the list in early 2007, namely, the Thai Credit Retail Bank and AIG Retail Bank.

Currently there are 35 commercial banks operating in Thailand under the supervision of the Bank of Thailand. Of this total, 18 are locally incorporated (comprising 17 Thai banks and 1 subsidiary of foreign bank); boasting 4,963 branch offices nationwide, and 17 are branches of foreign banks.

Table 1.1: Lists of Commercial Banks in Thailand

	Year of Opening	No. of Branches ¹
Banks Incorporated in Thailand = 18		4,963*
Thai Commercial Banks		
1. The Siam Commercial Bank Public Company Limited	1906	848
2. Siam City Bank Public Company Limited	1941	403
3. Bangkok Bank Public Company Limited	1944	758
4. Kasikornbank Public Company Limited	1945	610
5. Bank of Ayudhya Public Company Limited	1945	565
6. TMB Bank Public Company Limited	1957	473
7. Krung Thai Bank Public Company Limited	1966	728
8. BankThai Public Company Limited	1998	143
9. Thanachart Bank Public Company Limited	2002	158
10. United Overseas Bank (Thai) Public Company Limited	2005	152
11. Standard Chartered Bank (Thai) Public Company Limited	2005	38
12. TISCO Bank Public Company Limited	2005	27
13. Kiatnakin Bank Public Company Limited	2005	22
14. ACL Bank Public Company Limited	2005	11
Thai Retail Banks		
1. Land and Houses Retail Bank Public Company Limited	2005	11
2. The Thai Credit Retail Bank Public Company Limited	2007	2
3. AIG Retail Bank Public Company Limited	2007	11

	Year of Opening	No. of Branches ¹
Subsidiary of Foreign Bank		
1. MEGA International Commercial Bank Public Company Limited	2005	3
Banks Incorporated Abroad = 17		17
Full Branches		
1. The Hongkong and Shanghai Banking Corporation Limited	1888	1
2. ABN AMRO Bank N.V.	1888	1
3. Calyon Corporate and Investment Bank	1897	1
4. Oversea-Chinese Banking Corporation Limited	1909	1
5. Bank of America, N.A.	1949	1
6. The Bank of Tokyo-Mitsubishi UFJ, Limited	1962	1
7. RHB Bank Berhad	1964	1
8. Citibank, N.A.	1985	1
9. Deutsche Bank AG.	1988	1
10. Sumitomo Mitsui Banking Corporation	1997	1
11. Mizuho Corporate Bank Limited	1997	1
12. BNP Paribas	1997	1
13. Bank of China Limited	1997	1
14. The Bank of Nova Scotia	1998	1
15. JP Morgan Chase Bank, N.A.	2001	1
16. Societe Generale	2005	1
17. Indian Overseas Bank Limited	2007	1
Total Number of Branches		4,980*

Source : Bank of Thailand

Notes : ^{1/} As of August 2007

*Including Head Office

Commercial banks offer a full range of financial services including deposit-taking, electronic banking/Automatic Teller's Machines (ATMs) services, credit card services, lending (personal loans, commercial financing, international trade financing), foreign currency exchange service, domestic funds transfer and international remittance services, private fund management, etc. They also expand to cover various types of services relating to savings and fund mobilization via full scale service subsidiaries such as underwriting of debt instruments, sale of mutual fund units, bancassurance service, leasing and hire purchase, factoring, and forfeiting, etc.

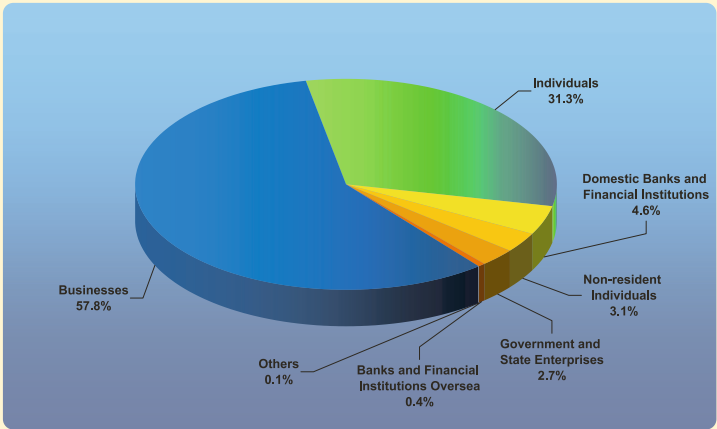
At the end of June 2007, total assets of the Thai commercial banking system stood at THB 9,156.3 billion. Total deposits amounted to THB 6,659.6 billion, and total credits outstanding were THB 5,978.5 billion. The majority of commercial banks' credits were loans extended to business sectors. As of June 2007, the business sector and individual borrowers accounted for 58% and 31% of commercial banks' loans, respectively. About 25% of the loans were extended to finance the manufacturing sector. This was followed by personal consumption (31%); wholesale, retail sale and repair of motor vehicles, motorcycles, personal and household goods (16%); financial intermediation (11%); real estate activities (7%); and transport and public utilities (6%).

Figure 1.6
Commercial Banks' Outstanding Credits Classified by Type of Credit
(1992-June 2007)



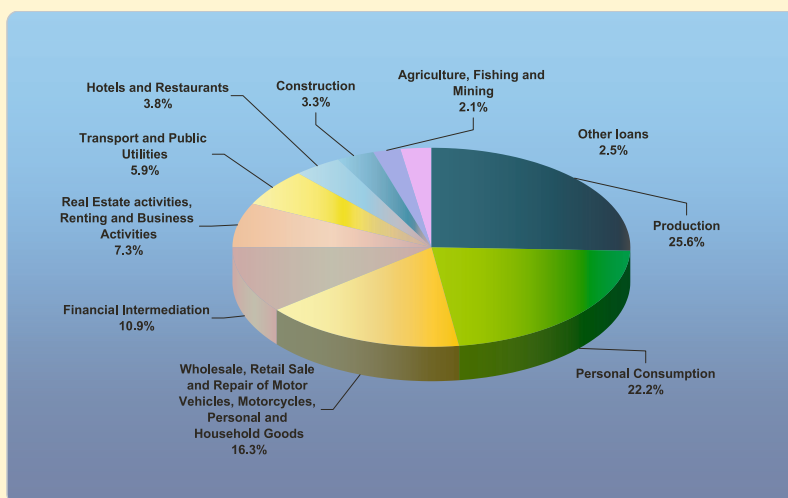
Source: Bank of Thailand

Figure 1.7
Commercial Banks' Outstanding Credits Classified by Type of Debtors
(As of June 30, 2007)



Source: Bank of Thailand

Figure 1.8
Commercial Banks' Credits Classified by Type of Business
(As of June 30, 2007)



Source: Bank of Thailand

Finance Companies

Finance companies came into existence in 1961 and had grown remarkably, becoming a major player in the loan market. The finance and securities companies had operated fairly freely until 1979 when the Ministry of Finance stepped in to regulate the business by enacting a law (the Act on the Undertaking of Finance Business, Securities Business and Credit Foncier Business, B.E. 2522), requiring the finance business to become under the authorization and supervision of the Ministry of



Finance and the Bank of Thailand. Nevertheless, rapid expansion and mismanagement of finance companies resulted in several crises in the Thai financial history.

Finance companies are not allowed to take deposits, but they can raise funds from the public by issuing promissory notes or similar instruments or by borrowing from other sources; these, in turn, are lent to business and individuals in the form of commercial loans, consumer loan, and housing loan, etc. The finance companies were severely affected by the financial crisis in 1997, leading to the closure of 56 companies. The number of finance companies dropped dramatically from 91 in 1997 to 18 in 2004. The rationalization of financial institutions in accordance with the FSMP further reduced the number of finance companies.

As of June 2007, there were 5 finance companies remained in operations and they are expected to fade away eventually. Total assets of these companies were THB 50,707.4 million, while deposits and credit stood at THB 39,858.5 million and THB 31,922.5 million respectively.

Credit Foncier Companies

Similar to finance companies, credit foncier companies are authorized and regulated by the Ministry of Finance and the Bank of Thailand under the Act on the Undertaking of Finance Business, Securities Business and Credit Foncier Business, B.E. 2522 (1979). Credit foncier companies finance the purchase

of land or housing construction. They may not mobilize funds from the general public but must rely on their own resources or borrowings. Due to the financial restructuring in the aftermath of the financial crisis and the implementation of the FSMP, the number of such companies was reduced from 18 in 1992 to only 3 as of June 2007. At the end of 2006, total assets of credit foncier companies amounted to THB 2,285.4 million, deposits amounted to THB 834.8 million and credits amounted to THB 934.8 million.

Specialized Financial Institutions (SFIs)

SFIs are financial institutions established by the government with the objective to provide financial assistance to specific sectors of the economy such as agriculture, manufacturing, export, and housing, etc. They are operating under the supervision of the Ministry of Finance and are mostly instrumental to implementing the government policies. The roles of SFIs in the loan market are different subject to the mission and objective of establishment. Although the market share of these SFIs may not be significant, they have played a vital role in stimulating the priority sectors of the economy by offering credit facilities with special features which cannot be obtained from private sector financial institutions. Such credit facilities are, for instance, long-term loans with fixed or concessional rate of interest. SFIs are able to access various concessional sources of financing such as financing from the public sector, concessional loans or grants from international organizations, etc. Major SFIs are as follows:



The Bank for Agriculture and Agricultural Cooperatives (BAAC)

The BAAC was established in 1966 as a state enterprise under the jurisdiction of the Ministry of Finance to replace the Bank for Cooperatives which was set up in 1947 to serve as a source of funds for the cooperatives that existed in Thailand at that time. The BAAC's mission is to extend credit more widely and directly to individual farmers as well as through farmer institutions. Its objectives are to provide financial assistance in order to promote agriculture as an occupation for farmers and farmer institutions, to help farmers and farmer institutions increase their productivity and incomes and to offer deposit services to farmers throughout the country similar to those offered by commercial banks.

At the end of June 2007, total assets were THB 677,850 million, deposits were THB 525,106 million, and total loans were THB 448,140 million. The Bank had a total of 920 branches nationwide.

The Government Savings Bank (GSB)

The GSB was set up in 1913 with the principal objective to promote savings among the general public. Accordingly, during the initial stage of operations, GSB did not place much emphasis on credit extension but mainly served as source of funds for the government and state enterprises, while credits extended to the public were small scale lending such as rural

development loan and retail loan. During the period of 1987-1996, the government recorded a budgetary surplus, reducing the demand for borrowing from the GSB. The Ministry of Finance therefore expanded the role of GSB by allowing the bank to lend to private sector projects such as long-term loans, joint lending with commercial banks, etc. The activities of GSB have been enhanced to cover a comprehensive range of financial services including foreign exchange transaction, asset management, financial advisory, etc.

At the end of June 2007, total assets of GSB were THB 763,542.3 million, loans were 514,491 million and deposits were THB 616,235 million.

The Government Housing Bank (GHB)

The GHB was established on September 24, 1953 under the Government Housing Bank Act B.E. 2496 (1953) to mobilize funds from the public and provide mortgage loans to low and medium income workers. The GHB had about 38% share in the total housing loan market in Thailand in 2005. The bank's funds are 75% from deposits taking and 20% borrowing.

At the end of June 2007, total assets of GHB were THB 651,531.7 million, loans were 578,161.1 million and deposits were THB 440,907 million.



Small and Medium Enterprise Development Bank of Thailand (SME Bank)

In 1964, a loan office for small industries was set up under the supervision of the Ministry of Industry to provide financial support to small manufacturing businesses. The office was later named the Small Industries Finance Office (SIFO). SIFO's operations were hindered by the limited source of fund, which was dependent solely on government budget, and lack of flexibility under governmental procedures. Consequently, the Small Industry Finance Corporation Act was enacted in 1991, transforming SIFO into the Small Industry Finance Corporation (SIFC) with a registered capital of THB 300 million. In 2000, SIFC was re-capitalized with funds from the Ministry of Finance, increasing its equity to THB 2,500

million. Two years later, The Small and Medium Enterprise Development Bank of Thailand Act came into force on 20 December 2002, re-establishing SIFC as the Small and Medium Enterprise Development Bank of Thailand (SME Bank). SME Bank's missions are to develop, promote, and assist small and medium enterprises in the establishment, operation, expansion, or improvement of their businesses through the provision of loans, guarantees, venture capital, counseling and other necessary services as prescribed by the Act.

At the end of June 2007, total assets of SME Bank were THB 58,729 million and loans were THB 44,575.4 million.

The Export Import Bank of Thailand (EXIM Thailand)

EXIM Thailand was established by the Export-Import Bank of Thailand Act B.E. 2536 (1993) which became effective on September 7, 1993. EXIM Thailand officially started its operation on February 17, 1994. Under the Export-Import Bank of Thailand Act, EXIM Thailand is empowered to engage in various business undertakings. EXIM Thailand can offer short-term as well as long-term credits, either in domestic or overseas markets, in baht or any foreign currency denominations. In mobilizing funds, EXIM Thailand can borrow from local or overseas financial institutions, as well as issue short-term or long-term financial instruments for sale to financial institutions and the general public, both domestically and internationally. Essentially, EXIM Thailand can engage in any financial activities



customary to commercial bank practices, except for accepting deposit from the general public. In November 1999, the Export-Import Bank of Thailand Act (No.2) B.E. 2542 (1999) was enforced to clarify and expand the Bank's objective and scope of operation with regard to investment promotion and support. The amendment enabled the Bank to provide more comprehensive support to Thai investors overseas as well as local investors in business relating to export or business which earns or saves foreign exchange.

At the end of June 2007, total assets of EXIM Thailand were THB 72,376 million and loans were THB 55,466 million.

Apart from the financial institutions mentioned above, there are other types of institutions engaging in lending business, namely, insurance companies, cooperatives, credit cards companies and personal loans companies. The latter two types of non-bank institutions have played an increasing role in the loan market. Currently, there are 12 credit card companies and 30 companies undertaking personal loan business under the supervision of the Bank of Thailand.



1.3 Equity market

The Stock Exchange of Thailand (SET)

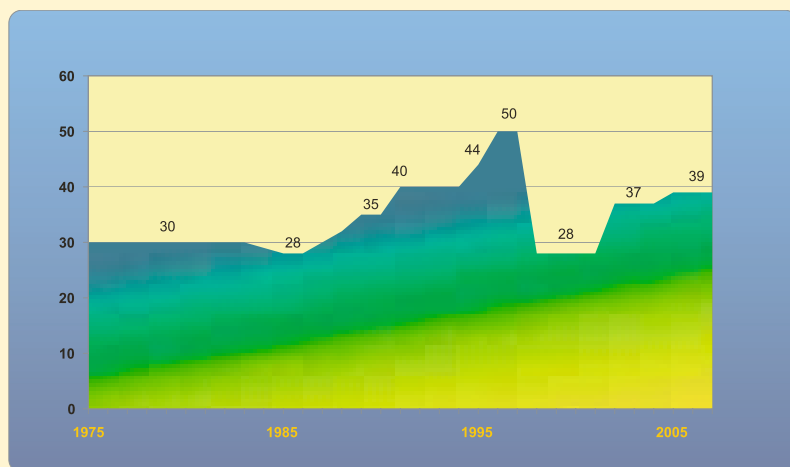
The SET is a juristic entity set up under the Securities Exchange of Thailand Act, B.E. 2517 (1974) with the mandate to be a market or center for the trading of listed securities, and promoter of financial planning, as well as to provide related services connected to such activities, without distributing any profits to members. Trading on the SET officially began on April 30, 1975. Its name was changed from “The Securities Exchange of Thailand” to the present one on January 1, 1991.

In the initial stage, apart from fulfilling the mission to serve as a trading center for listed securities, the SET also involved in regulating the offering of securities in the primary market. It was not until 1992 when a comprehensive legal framework to oversee the sector was established by the enactment of the Securities and Exchange Act B.E. 2535 (1992), or the SEC Act. The SEC Act stipulates that the Securities and Exchange Commission, Thailand (SEC), will be established as an independent state agency with responsibility for supervision and development of the capital market, both primary and secondary, under the direction and guidance of the Board of the SEC. Accordingly, the SET turned to be the country’s only authorized securities secondary market regulated by the SEC, with its main operations including securities listing, supervision of listed companies and information disclosure,

trading, market surveillance and member supervision, information dissemination and investor education.

Only member companies of the SET are authorized to buy or sell securities on the SET. Companies applying for membership on the exchange must hold a securities license from the Ministry of Finance, which is approved based on a recommendation by the SEC. There were 30 member brokers when the SET commenced trading in 1975. The number rose significantly during the boom of the market, reaching 50 in 1977 before dropping drastically to only 28 in the following year as many finance and securities companies were severely affected by the crisis. Currently the total number of broker is 39.

Figure 1.9
SET Member Brokers (1975-August 2007)



Source: The Stock Exchange of Thailand

The SET Board of Governor is responsible for formulating the SET policies, and supervising the Exchange's operations; although certain rules and regulations prescribed by the Board must also be approved by the SEC. The Board is composed of 11 members, five of whom are appointed by the SEC, five are elected by SET members, and the SET president who is appointed by the Board is an ex-officio member.

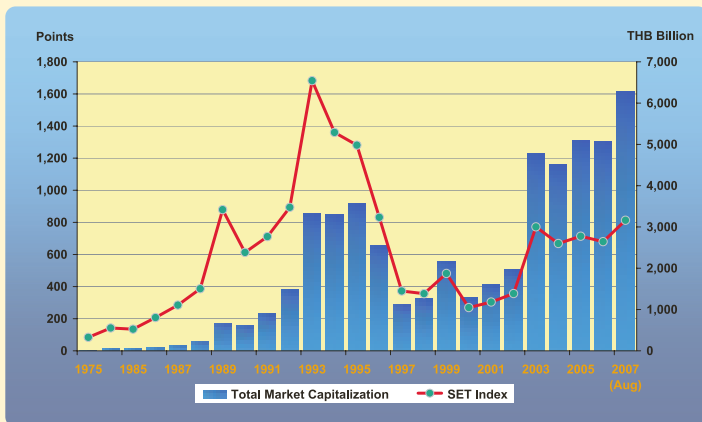
The SET has experienced several boom and bust cycles over the past three decades. Significant efforts were made during the first 15 years to lay the foundation for promoting investment and fund mobilization through the stock market. There had been various legislative reforms undertaken to facilitate investment, for instance, amendment to taxation law and relaxation of foreign exchange control to attract foreign investors. The foreign board was set up in 1987 to serve as an alternative board for foreign investors who seek ownership of the securities they invest in and to register such shares under their own names, thus enhancing the liquidity of shares that have reached foreign ownership limits. Notwithstanding such endeavors, however, the stock exchange did not see much impressive activities during this period. Average daily turnover increased from THB 3.4 million in 1975 to THB 62.6 million in 1985 and THB 2.54 billion in 1990, while the number of listed companies rose from 21 to 93 and 209, and total market capitalization surged from THB 5.4 billion to THB 49.5 billion and THB 613.5 billion, at the end of 1975, 1980 and 1990, respectively.



In 1991, the SET replaced its conventional floor trading system to a fully computerized trading system, paving the way for the exchange to enter into a new phase of development induced by the major capital market reform in 1992. The SET enjoyed tremendous growth from early 1990's until the eruption of the 1997 economic crisis, with the SET Index hitting an all time high of 1753.73 on January 4, 1994. However, when the economy slipped into recession, the market weakened correspondingly and the SET Index fell sharply to as low as 207.31 on September 3, 1998. The SET has regained momentum since 2001 as a result of the recovery of the economy as well as the concerted efforts of related parties to strengthen the capital market.

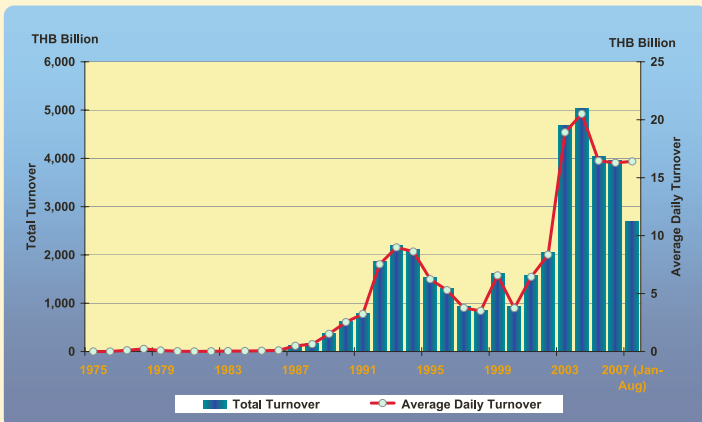
At the end of August 2007, there were 477 listed companies and 582 listed securities on the SET. Total market capitalization stood at THB 6.3 trillion and the SET Index closed at 813.21. Capital mobilized by listed companies through issuance of a variety of financial instruments during the first 8 months of 2007 was THB 37.6 billion whereas average daily turnover during the corresponding period was THB 16.4 billion.

Figure 1.10
SET Index and Market Capitalization
(1975-August 2007)



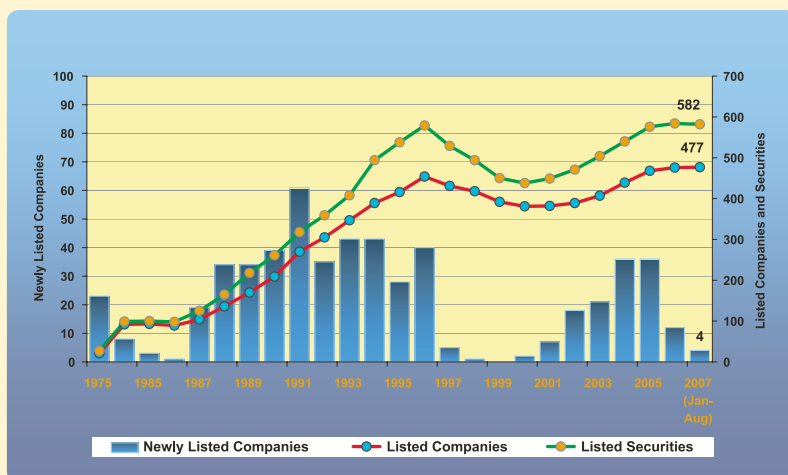
Source: The Stock Exchange of Thailand

Figure 1.11
Turnover Value of Listed Securities on the SET
(1975-August 2007)



Source: The Stock Exchange of Thailand

Figure 1.12
Listed Companies and Listed Securities on the SET
(1975-August 2007)



Source: The Stock Exchange of Thailand

Market for Alternative Investment (mai)

The SET established mai under the Securities and Exchange Act to create new fund-raising opportunities for small and medium-sized enterprises (SMEs) as well as provide a greater range of investment alternatives for investors. It officially commenced operation on June 21, 1999 while trading began on September 17, 2001.

At the end of August 2007, there were 44 small and medium sized companies with growth potential listed on the trading board of mai. Total number of securities was 48, of which 44 were common stocks and 4 were warrants. Market capitalization at the end of August 2007 was THB 30,278.92 million, almost 10 times of the corresponding value in 2002.

Figure 1.13
Listed Companies and Listed Securities on the mai
(2001-August 2007)



Source: The Stock Exchange of Thailand



Figure 1.14
mai Index and Market Capitalization
(2001-August 2007)



Source: The Stock Exchange of Thailand

Types of Products

There are various types of securities that are issued and traded on the SET as follows:

- **Ordinary Shares** or common stocks are equity instruments issued by public companies to mobilize funds from the public. Shareholders have a direct stake in the issuer company and are entitled to vote and participate in major decisions at the shareholders' meetings about such issues as a capital increase, a dividend payment, or a merger. Since the beginning, listed common stocks constitute the vast majority

share of approximately 85% of securities traded on the SET. At the end of August 2007, there were 499 common stocks listed on SET including 15 property fund projects, accounting for 84.5% of the total listed securities.

- **Preferred Shares** are also equity instruments. The difference between a preferred share and an ordinary share is that the holder of preferred shares will be entitled to a share in the company's funds before ordinary shareholders do. Not many preferred shares have been issued and listed on the Thai stock market. At the end of August 2007, 10 issues of preferred share were listed on SET.

- **Convertible Debentures** have similar features to debentures. However, a convertible debenture can be converted to a predetermined amount of shares at a predetermined price in a fixed time period. In early 1990s, there were about 7-8 convertible debentures listed on the SET. Since the economic crisis, there has not been any new issue. On the contrary, an increasing number of convertible debentures have been offered on a private placement basis in the past few years.

- **Warrants** A warrant holder is entitled to buy a fixed amount of shares at a predetermined price and time (the share price is generally low or may be even free of charge). Warrants are issued in conjunction with a new share issue to induce investors to subscribe to the new shares. There were 72 listed warrants at the end of August 2007.



- **Derivative Warrants (DW)** A Derivative warrant has similar features to a regular warrant. The holders of derivative warrants have the right to buy or sell the underlying securities, which can be either stock or indices at a specified price and ratio within a specified period. The DW issuer has an option to settle the position either with underlying securities or cash. Only a handful of DW was issued in the past 5-6 years. At present, none is outstanding.

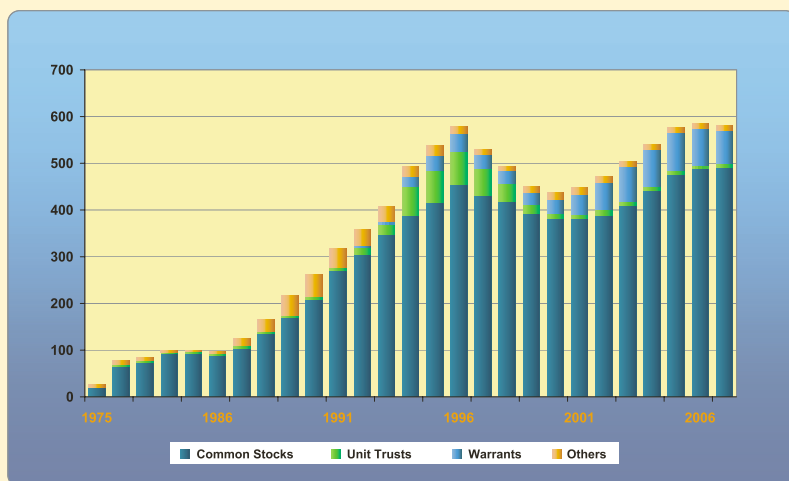
- **Non-Voting Depository Receipt (NVDR)** is a new trading instrument whereby the holder is entitled to all financial benefits of the underlying securities. The difference is that the NVDR holder has no voting right. Thus, NVDRs help eliminate foreign investment barriers, such as foreign investment limits.

- **Unit Trusts** are investment units in mutual funds issued by investment management companies. Unit trusts are an alternative way of raising funds from the general public. The funds are invested by the fund manager, which are then redistributed to the unitholders as dividends. Unit trusts had been quite active prior to the economic crisis in 1997 particularly equity unit trusts. There were about 71 unit trusts listed on SET in 1996. However, the number had declined to 7 at the end of August 2007 as most of them had been redeemed or transformed from a closed-end fund to an open-ended fund which is not required by the SEC to seek listing on the SET. Most of the unit trusts currently listed on the SET

are foreign investment funds (FIFs) that mobilize domestic funds for offshore investment.

- **Exchange Traded Fund (ETF)** Equity ETF acts as both investment alternative and risk management tool. It suits investors who do not want to be directly exposed to the risks associated with an individual stock, and who seek easier management of their assets. Thailand's first ETF, ThaiDEX SET50 ETF, commenced trading on the SET on September 6, 2007. TDEX is worth THB 5,000 million, comprising 880.28 million investment units, with a par value of THB 5.68 each. The fund is managed by One Asset Management Limited (ONEAM) with the policy to invest an average of at least 65% of its net asset value (NAV) in each accounting period in equities. The remainder will be invested in debt instruments, money market instruments, cash deposits, or derivatives to replicate the return of the benchmark Index, which is the SET50 Index. TDEX has a policy to pay dividends to unitholders from accumulated profit or net profit no more than four times per year, at not more than 100% of accumulated profit or net profit, whichever the management company deems appropriate.

Figure 1.15
Products Listed on the SET
(1975-August 2007)



Source : The Stock Exchange of Thailand

Notes : 1. Since 1993, common stocks include unit trusts of property funds which are regarded as common stocks under the category of property development.
 2. Others include preferred stocks, derivative warrants, convertible debentures, and depository receipt. During 1975-1998, a handful of debentures were also traded on the SET.

SET's Subsidiaries

In order to move towards an integrated secondary securities market, the SET set up two more subsidiaries in addition to the mai to perform the function of securities trading centers:

Bond Electronic Exchange (BEX): An exchange for debt securities launched on November 26, 2003.

Thailand Futures Exchange Public Company Limited (TFEX): An exchange for the trading and hedging of derivatives products established on May 17, 2004 under the Derivatives Act B.E. 2546 (2003).

In addition, the SET also established a number of subsidiary companies and institutions to enhance its service efficiency as well as to disseminate investment knowledge and information:

The Thailand Securities Depository Company Limited (TSD): established on November 16, 1994 and officially began operations on January 1, 1995 to develop and promote back-office systems in Thailand. The after-trade services provided for the members of the TSD comprises securities depository, clearing and settlement, securities registration, fund registration, and broker operation services.

The Thai Trust Fund Management Company Limited: established on December 17, 1996, to act as an alternative portfolio investment vehicle for foreign investors in addition to existing channels.

The Thai NVDR Company Limited (Thai NVDR): established on October 4, 2000, to attract foreign investors to the Thai capital market via issuance and sale of Non-Voting Depository Receipts (NVDRs).

Settrade.com Company Limited (Settrade): established on October 13, 2000 and officially began operations on



November 13, 2000 to provide internet trading platforms and leverage investment technology for brokerage houses in order to accommodate retail investors with increasing trading channels. It is also the marketing arm of the SET's information products to ensure the efficiency of the information dissemination to investors and other market participants such as data vendors, brokers, research houses, and press.

Thailand Securities Institute (TSI) provides activities to encourage knowledge of financial and investment for youth, students, investors, general public and personnel in securities business

The Family Know-How Company Limited (FKH): established on August 6, 2002 to enhance public awareness and provide knowledge about personal finance, money and the capital market through a range of media, educational activities and public events.

The Capital Market Academy (CMA): established on April 29, 2005 to develop high-quality capital market executives.

1.4 Bond Market

Although the Thai government has issued domestic bonds since 1935, followed suit by the private sector, the issuance amount was insignificant and the investment purpose was to hold the securities until maturity rather than for transaction. Subsequently, there was a change of policy prohibiting the private sector to issue bond for a long time. As a result, the Thai bond market during 1970-1990 were dominated by bonds issued by the government and state enterprises, and debentures issued by the Industrial Finance Corporation of Thailand (IFCT), the industrial development institution at that time. The promulgation of the SEC Act in 1992 lent an impetus to the corporate bond market as the law stipulates regulations and procedures for the issuance of both equity and debt securities. However, the public sector debt market on the other hand was stagnant due to the fact that the government is





allowed to issue bonds only for financing budgetary deficits. Throughout the period of 1988-1997, the Thai government registered a budget surplus and therefore no government bonds had been issued for a decade. Although there had been issuance of state enterprise bonds to tap funds for financing the public utility project from time to time, they still could not stimulate trading of bond on the secondary market since most state enterprise bonds issued during that period were guaranteed by the Ministry of Finance, and were held by financial institutions as legal reserves.

The Thai bond market has grown rapidly in recent years after the 1997's economic crisis. To help support cash-strapped financial institutions, in June 1998 the government issued government bonds for the first time in a decade. The total amount of government bonds issued under this program was THB 500 billion and this has opened a new era for the Thai bond market. The total amount of government bonds in 1998 increased by more than 30 times, due to the government deficit and the huge borrowing by the Financial Institution Development Fund (FIDF). The government continued to issue bonds since then with the primary objective to finance budget deficit resulted from the crisis. The substantial amount of new government bonds coupled with downtrend of interest rates have contributed to the robust growth of the bond market as evidenced by a significant increase in both market size and trading volume. During 1999-2000, the corporate

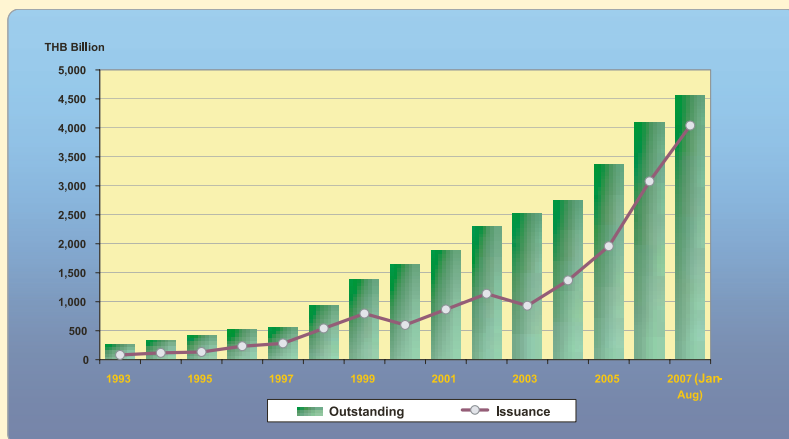
bond sector also expanded tremendously due to the effort to recapitalize and restructure their debts. Commercial banks had raised their capital through the issuance of preferred stocks linked with subordinated debentures, or the so-called SLIPS (Stapled Limited Interest Preferred Shares) and CAPS (Capital Augmented Preferred Shares). The outstanding value of domestic bonds increased from THB 547 billion in 1996 to THB 1,883 billion at the end of 2001 whereas trading volume in the secondary market rose from a daily average of only THB 822 million to THB 6,472 million in 2001 during the corresponding period. In 2002, the government issued THB 3 trillion worth of saving bonds to finance the accumulated debts of the FIDF; this marked the largest offering of government bonds in Thai history.





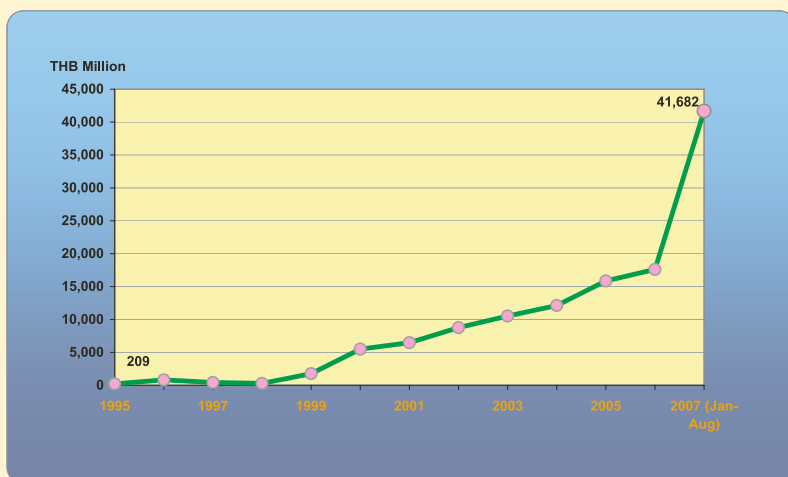
During the first 8 months of 2007, a total of THB 4,040 billion domestic bonds had been issued, representing an increase of 31.3% over the issuance value of THB 3,077.4 billion in the whole year of 2006. Total outstanding value of domestic debts stood at THB 4,567.15 billion at the end of August 2007, comprising 76.4 % government securities, 23.1% corporate securities and 0.5% foreign bonds. Of this total outstanding value, about 96% were registered with the ThaiBMA, amounting to THB 4,395.1 billion. Average daily trading value increased significantly from THB 17,600 million in 2006 to THB 41,680 million.

Figure 1.16
Issuance and Outstanding Value of Domestic Bonds
(1993-2007)



Sources: BOT, SEC, PDMO and Registrars

Figure 1.17
Average Daily Trading Value of Domestic Bonds
(1995-August 2007)



Source: ThaiBMA

1.5 Derivatives Market

Currently there are two derivative exchanges in Thailand: The Agricultural Futures Exchange of Thailand (AFET) deals with commodity futures and the Thai Futures Exchange Public Company Limited (TFEX) which deals with financial derivatives. Meanwhile, the use of OTC derivatives such as Interest Rate Swap (IRS), Cross Currency Interest Rate Swaps (CCIRS), and Forward Rate Agreement (FRA) has been moving on the rising trend.



Exchange-traded Derivatives

AFET was established under the Agricultural Futures Trading Act B.E. 2546 (1999) to run the exclusive agricultural futures exchange in Thailand regulated by the Agricultural Futures Trading Commission (AFTC). The exchange began operations on May 28, 2004 with Ribbed Smoked Rubber Sheet No.3 (RSS3) being the first listed product. In addition to RSS3, 4 more products were launched subsequently, namely, White Rice 5%, Latex, Standard Thai Rubber 20, Tapioca Starch Premium Grade, and Tapioca Chip. However, trading on AFET is dominated by RSS3. At the end of August 2007, total open interest stood at 1,573 contracts, of which 1,461 contracts or 93% were RSS3 futures. Average daily trading volume during the first 8 months of 2007 was 321 contracts.

The SET also established TFEX on May 17, 2004 under the Derivatives Act, B.E. 2546 (2003) to be an exchange for trading of financial derivatives. TFEX is under the supervision of the SEC. It was granted the licence to operate the exchange on February 11, 2005 and commenced trading on April 28, 2006. The first product launched by TFEX is the SET 50 Index futures.

TFEX is responsible for the formulation of guidelines, conditions and methods of trading, feature and standard contracts of the futures, qualifications and role and responsibilities of members, as well as management of the trading system, and supervision of trading activities and related parties. By law, The

TFEX is allowed to trade futures, options, and options on futures. The permitted underlying products include:

- Equities and other securities indices;
- Debts instruments and interest rates;
- Non-agricultural commodities and other financial indices (e.g., gold, crude oil and foreign currencies)

Following the launch of SET50 Index futures, TFEX is scheduled to launch SET50 Index Options, the second product, on October 29, 2007.

Only member firms are allowed to access the Exchange trading system. Investors place the orders via their brokers, which are TFEX members. To become a member of the TFEX, brokerage firms must first acquire a license from the Securities and Exchange Commission (SEC) and then apply for TFEX membership. There are three types of members: Broker Members, who are juristic entities trading for their own accounts and acting on behalf of their clients, Proprietary Trading Members, who are juristic entities trading for their own accounts only and Individual Members, who are individual investors trading for their own accounts. At present, TFEX only admits broker members, who trade for their own accounts and act on behalf of their clients.

Trading on TFEX has been active in comparison to that on the AFET. Investors are more familiar with the SET 50 Index than the agricultural products which are relatively too complicated



for them to understand and analyze the future price movement. On July 3, 2007, TFEX reached the highest daily trade since inception with a record 9,894 contracts, with total trading value on that day staying at THB 5,743 million and open interest at the end of the day at 10,787 contracts. During the first 8 months of 2007, average daily trading volume of TFEX was 4,061 contracts, a 237% rise from the 1,204 contracts in 2006. Total open interest at the end of August was 13,430 contracts.

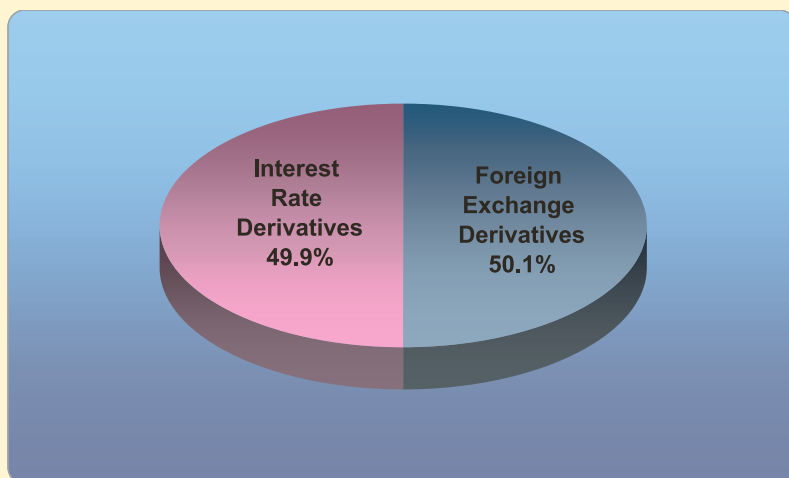
OTC Derivatives

Among the derivative products traded on the OTC markets, the most active products are foreign exchange derivatives, which mainly include forward and swap transactions and interest rate derivatives which comprise interest rate swaps (IRS), interest rate options, and forward contract agreements. The services are principally provided by commercial banks to major clients such as financial institutions, SFIs, state enterprises, asset management companies, and life insurance companies. Financial institutions normally use these derivatives products for minimizing cost and hedging whereas fund managers and insurance companies use these products for enhancing yield of their investment portfolio.

At the end of June 2007, total outstanding derivatives of commercial banks amounted to THB 13,412.7 billion, with foreign exchange derivatives and interest rate derivatives each sharing about half of the total value. Foreign banks in Thailand

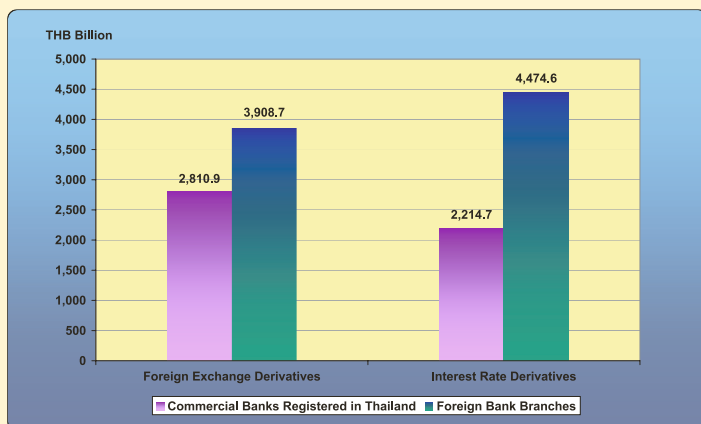
controlled almost 60% of the foreign exchange derivatives market and almost 70% the interest rate derivatives market. Regarding the 2 most active OTC derivatives, i.e., IRS and foreign exchange forward, available data from the BOT showed that the outstanding value of IRS increased remarkably from THB 1,009.5 billion at the end of 2003 to THB 4,700.6 billion at the end of 2006, a growth rate of more than 300% over the past 3 years, whereas foreign exchange forward grew by 63% from THB 2,274.9 billion to THB 3,710 billion during the corresponding period.

Figure 1.18
Commercial Banks' Outstanding of Derivatives by Type of Product
(As of June 30, 2007)



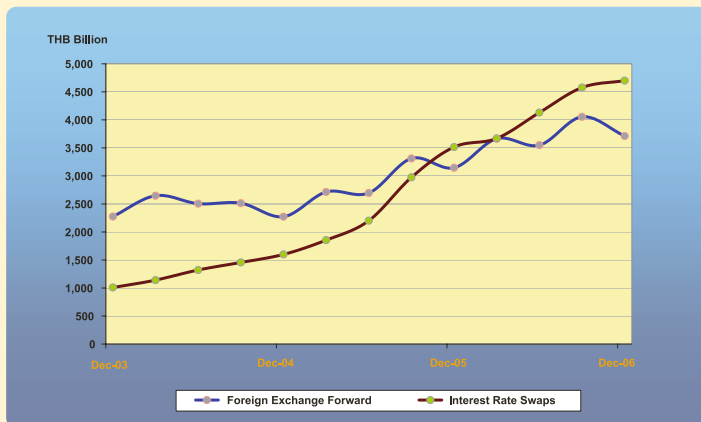
Source: Bank of Thailand

Figure 1.19
Commercial Banks' Outstanding of Derivatives
by Local and Foreign Banks
(As of June 30, 2007)



Source: Bank of Thailand

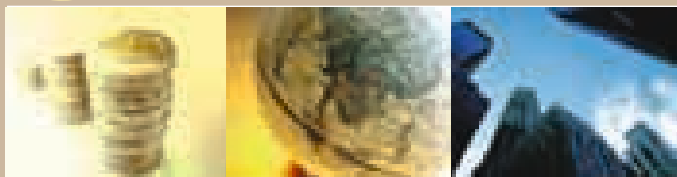
Figure 1.20
Commercial Banks' Outstanding of Foreign Exchange Forward
and Interest Rate Swaps (2003-2006)



Source: Bank of Thailand

C

CHAPTER 2



THE THAI BOND MARKET



2.1 Brief History

The bond market in Thailand could be dated back over a century ago although a rapid pace of development has been observed only in the last decade. The country's first bond issuance occurred in 1903 in the reign of King Rama V. The Royal Thai Government (RTG) offered the 40-year bonds to European investors totaling one million pound sterling, half of which were placed in the London market while the rest were placed in Paris. The bond proceeds were used to finance railroad construction and other basic public utilities projects.

From then on, the RTG had issued a number of foreign bonds in the European market to finance the country's infrastructure projects. Until 1933, the first domestic bond issue was offered to the public to mobilize funds for investment in revenue generating activities. In 1945, the government issued short-term securities for the first time by authorizing the Bank of Thailand to open an auction for treasury bills with a tenor of less than one year.

The amount of government's domestic bond issuance generally depends on the country's fiscal position. In a year of budget surplus, no bonds are issued to the market. For instance, during 1988-1997 there was lack of supply of government securities due to positive fiscal position. As a result, the domestic bond market became stagnant.

As for the private sector, there has been no evidence as to when corporate began raising funds through bond issuance. However, the law which was promulgated in 1928 had already stipulated about corporate bond offering. It is therefore believed that corporate bonds had been in place long before then. Historically, the volume of corporate bonds was negligible due to its unpopularity as compared to bank loans. A key factor which contributed to limited amount of corporate bonds was the former law which prohibited company to issue bond to the public unless it was a 'public company.' At that time the 'public company' as defined by the law was rather restricted. As such, no company was virtually qualified for 'public company,'



hence bond issuance hardly took place in the private sector. Only the Industrial Finance Corporation of Thailand (IFCT), an SFI, was able to issue bonds in the market as allowed by its own charter – the Industrial Finance Corporation of Thailand Act, B.E. 2502 (1959). Therefore, the corporation had played a vital role in the private bond market in the early stage. IFCT's initial bond offering in the Thai market occurred in 1968 with a size of merely THB 80 million. The corporation continued its domestic bond issuances even after 1992 when the law had been amended which allowed for more participants. Its annual issue amount had reached THB 10 billion in early 2000s and was the largest issuer with an outstanding amount of nearly THB 60 billion in 2002. IFCT's debt securities possessed various types and forms. Tenors ranged from one year to as long as 18 years. Different offering mechanism had been applied such as a direct placement, a full underwriting and dealer panel's bidding. Apart from straight bonds, several other types of debt instruments had also been issued, for example, convertible debentures in 1989 and bonds with warrants in 1993. In 2004, IFCT merged with two other commercial banks and became a commercial bank.

During 1990s, the government had placed high importance in developing domestic capital market. The Securities and Securities Exchange Act was promulgated in 1992 followed by the establishment of the Securities Exchange Commission (the SEC) to regulate and supervise capital market activities. Related

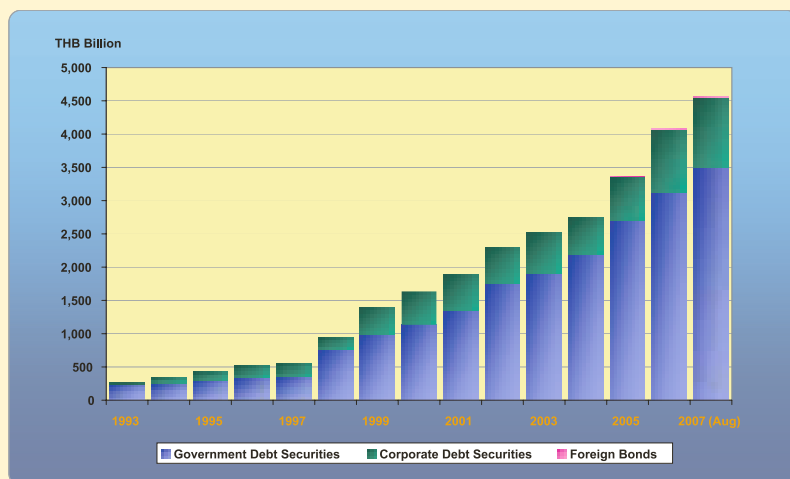


laws were amended to enable private companies to issue bonds. Public Company Law was also revised easing transformation from limited company to ‘public company’. From early 1990s up to pre-1997 crisis, the buoyant economy had prompted strong demand for capital. More private companies opted to raise fund from domestic bond market. Hence, the market had become quite active.

In the Asian crisis aftermath the domestic bond market experienced a remarkable expansion thanks to increasing volume of government securities. The government was in need of fresh capital to pump prime the economy and therefore had to issue a large amount of public bonds. From then on the government continues to issue bonds in the market. At the

end of August 2007, the outstanding of the market was THB 4,567.2 billion, an increase of over eight-fold from the outstanding value of THB 546.8 billion in 1997.

Figure 2.1
Outstanding Value of Domestic Bonds
(1993- August 2007)



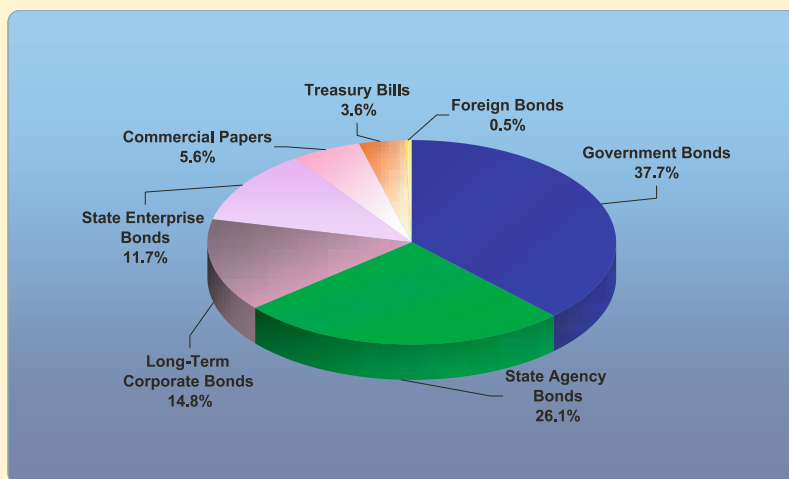
Source: ThaiBMA

2.2 Size and Composition

At the end of August 2007, there were 1,654 issues of bonds registered with the ThaiBMA worth THB 4,395.13 billion, an increase of 11% from 2006 year end. The majority portions, or about 79.1%, are government debt securities. This comprises loan bonds, saving bonds and treasury bills issued by

the Ministry of Finance (THB 1,813.38 billion or 41.3%), state agency bonds issued by Bank of Thailand (THB 1,146.58 billion or 26.1%) and state-owned enterprise bonds (THB 515.61 billion or 11.7%). The structure demonstrates heavy reliance on supply from the public sector, in particular the Ministry of Finance.

Figure 2.2
Outstanding Value of Domestic Bonds by Type
(AS of August 31, 2007)



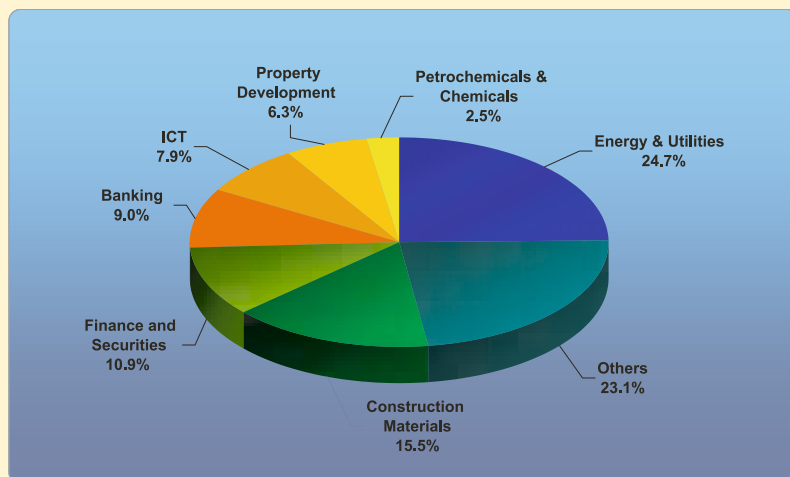
Source: ThaiBMA

In the private sector, the outstanding value of long term corporate bonds accounted for 14.8% of the total market or about THB 649.43 billion while commercial papers captured 5.6% or THB 246.64 billion at the end of August 2007.

Foreign bonds which have been allowed in the Thai market since 2005 registered a mere 0.5% or THB 23.5 billion.

If classified by business sector, the energy and utilities sector ranked first in terms of outstanding value as of August 2007 amounting to THB 160.69 billion or 24.7% of the corporate bond market. The construction material sector came second with the share of 15.5% or THB 100.55 billion. The finance and securities sector ranked third amounting to THB 71.07 billion or 10.9% market share, followed by the banking sector amounting to THB 58.57 billion or 9.0% market share.

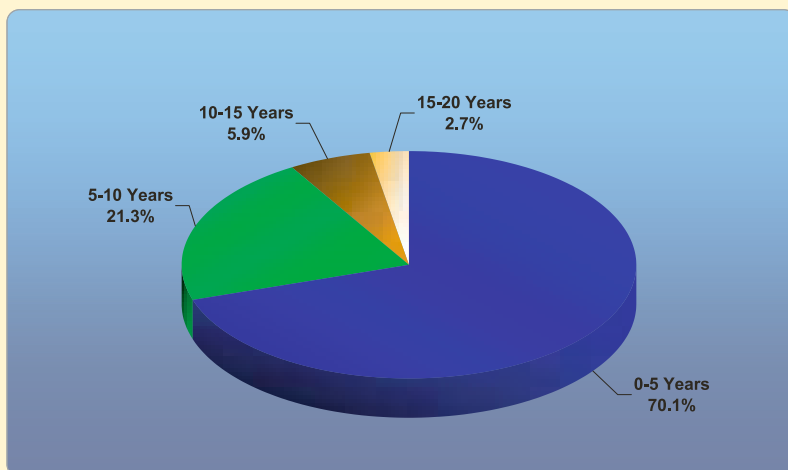
Figure 2.3
Outstanding Value of Corporate Bonds by Business Sector
(As of August 31, 2007)



Source: ThaiBMA

The majority of debt securities in the market are short to medium term tenors. At the end of August 2007, 70.1% of the bonds had tenors less than five years and 21.3% had tenors of five to ten years while those of longer term tenors accounted for only 8.6%. The figures illustrated that average maturity of debt securities in the Thai market tend to be rather short. If consider only corporate debt securities, 84.3% had remaining maturities of less than five years. It is clearly indicated that the Thai market lacks depth and breadth which are essential for further development.

Figure 2.4
Outstanding Value of Domestic Bonds by Time to Maturity
(As of August 31, 2007)



Source: ThaiBMA



If classified debt securities in the Thai bond market by type of coupon rate, more than 90% of the outstanding issues are fixed interest rate bonds and the remaining are floating rate bonds. Both government bonds and corporate bonds have similar interest rate structure. At the end of August 2007, 93% of corporate bonds are fixed rate bonds. Since March 2007 the Bank of Thailand has begun to issue floating rate bond using Bangkok Interbank Offered Rate (BIBOR) as a reference rate, thus, adding more product to the market.

2.3 Products

Government Securities

At present, there are three groups of issuing bodies of government securities namely the Ministry of Finance, the Bank of Thailand and state enterprises. Government securities can also be classified according to their tenors: short-term securities and long-term securities. Treasury bills and bonds issued by the Bank of Thailand (BOT bonds) having maturities under one year are grouped in short-term securities while government bonds, BOT bonds of over one year, and state enterprise bonds are long-term securities. The majority of government securities carry fixed interest rates. Short-term papers are normally issued on a non-interest bearing discounted basis. Since early 2007, the Bank of Thailand has started offering bonds on a floating interest rate basis.

Features of each type of government securities are summarized as follows:

1. **Treasury Bills** (T-Bills) are issued by the Ministry of Finance. The Bank of Thailand, however, is designated to run the auction process. At present, T-Bills are offered in three tenors i.e. approximately 28 days, 90 days and 180 days. There is no coupon payment on the notes and hence they are issued at a discount. Eligible participants in the auction are institutional investors and dealers including commercial banks, SFIs and securities dealers. As at the end of August 2007, the outstanding amount of T-bills stood at THB 158 billion.

2. **Government Bonds** presently comprise two types namely Loan Bond (LB) and Saving Bond (SB). Both are issued by the Ministry of Finance with different purposes. While LB is used to finance government budgeting expenditures, SB serves to stimulate public savings. They are medium to long-term papers with coupon payable semi-annually. LB plays a significant role in the Thai bond market as it creates benchmark yield curves. SB on the other hand focuses on retail investors





and sometimes applies transfer restriction in the initial stage of offering. Since 2006, SB has been issued regularly on a monthly basis. As at the end of August 2007, the outstanding amount of government bonds stood at THB 1,655.38 billion, comprising THB 1,228.29 million worth of loan bonds and THB 427.09 million worth of saving bonds.

3. State Agency Bonds comprise BOT Bonds and bonds issued by Financial Institution Development Fund (FIDF). BOT Bonds have two types of maturities; under one year and over one year. Those which are less than one year have various tenors i.e. 3-14 days, 180 days and 364 days. Other features are quite similar to T-Bills. Most long-term BOT bonds carry fixed coupon which are payable semi-annually. In March 2007, BOT introduced floating rate bond to the market using Bangkok Interbank Offered Rate (BIBOR) as a reference rate. As for FIDF bond, there has not been any new FIDF issue in the market as the authority has switched from issuing FIDF Bond to government bond of the same purpose. At the end of August 2007 the outstanding amount of state agency bond was THB 1,146.58 billion.

4. State-owned Enterprise Bonds (SOE Bonds) are classified into two groups: government guaranteed bonds and non-government guaranteed bonds. Government guarantee provides credit enhancement to state enterprises which help lower their cost of funds. However, there is a tendency that the government might limit its guarantee to state enterprises and

encourage them to raise fund on their own credit standing. SOE Bond has similar natures as those of Loan Bond. Only some issues are amortizing bonds such as those issued by the Provincial Electricity Authority (PEA). As of August 2007, the outstanding amount of SOE Bonds was THB 515.61 billion, 65.4% of which are government guaranteed.

Corporate Bonds

Bonds in the private sector are much more diversified than in the government sector. While the large proportion of them is plain-vanilla, there has been an increasing trend of structured issues in the past few years. In particular securitized bond has acquired impressive popularity following a recent successful issue. As of August 2007, there were 1,130 corporate issues registered with the ThaiBMA with an outstanding amount of THB 896.07 billion.

Long-term Corporate Bonds

Long-term corporate bonds are securities with tenors of one year and over which can be categorized according to coupon type as follows:

- **Fixed Rate Bonds**

Most corporate bonds fall into this category. In 2006, 93% of corporate bonds registered with ThaiBMA were fixed rate bonds. Issuing maturities range from one year to over ten



years. The majority, however, lies between one to five years. Bonds can be issued with or without a guarantee. Some of them are secured with collateral such as property. Most bonds have features of full redemption at maturity while some are redeemed on an amortization basis.

- **Floating Rate Bonds**


At the end of August 2007, about 7% of corporate bonds registered with ThaiBMA were floating rate bonds. Varieties of rates have been used as references such as commercial bank's Minimum Lending Rate (MLR), bank deposit rates, THB Fixed rate, etc. THB Fixed rate represents cost of Baht borrowing among commercial banks through foreign exchange

swap market. These rates are shown on Reuter screen. Some issues also carry maximum and minimum interest rates called caps and floors.

Hybrid products are also available in the Thai bond market such as convertible bonds and non-cumulative bonds whereby no interest are payable or accumulative if an issuer incurs loss on that particular year. In addition, depository receipt has also been pioneered. These types of products, however, are still small in size.

- **Convertible Bonds**

History of convertibles could be dated back even before the establishment of the SET. After the SET was formed, some were issued and listed on the exchange. Despite listed securities, not many convertibles had actually been traded due to lack of understanding in the product features. During SET's first few years, there was only one listed convertibles. Until 1990s more convertibles were issued. In 1992, there were 8 convertible issues which were listed on SET. Apart from domestic convertibles, a number of commercial banks and finance companies also issued convertibles offshore in order to enhance their capital base. After the 1997 crisis, no convertible bonds have been issued for a long period of time until recently. Such issues were sold on a private placement basis were unlisted. From 2005 up to mid-2007, there have been 10 convertible issues from 8 companies all of which are privately placed. Only two of them are international offerings while the remainder are



issued domestically. Offering size of domestic issues differ widely from mere THB 19 million to THB 2,000 million. The total issue amount was THB 5,980 million whereas the offshore issues totaled USD 324 million. Tenor of convertible bonds issued by Thai issuers normally ranges from five to ten years.

- **Tier-1 Subordinated Debentures** was first issued in the Thai market by Krung Thai Bank in 2006. The issuing amount was THB 1,440 million. In addition to its subordinated status, interest on the bond is non-cumulative and non payable in a year an issuer incur an operating loss. The issue carries floating interest rate based on average deposit rate of five largest commercial banks plus a step up margin of 2.55-3.55%. Krung Thai Bank was the first time issuer of this product in Thailand. Formerly some other banks had issued this type of bond in international market to raise tier-1 capital.


Commercial Papers

Commercial papers or short-term debt instruments include bills and short-term debentures. Bills hereinafter cover only those specified by the SEC which do not include trade bills, bills issued by financial institutions in ordinary course of business or for borrowing purposes. Commercial papers currently comprise three types of debt instruments, i.e., bills of exchange, promissory notes and short-term debentures having tenor of less than 270 days. Its popularity has been on a rising trend.

Based on the SEC data, the size of commercial papers issued in 2004 was THB 162.9 billion and was increased by four times to THB 744.7 billion the following year or about 76% of total corporate bonds issued in the market. In 2006, the number climbed to THB 1,130.2 billion which was equivalent to 84% of total corporate bonds. This indicated that investors have keen interests in short-term instruments. Frequent issuers are financial institutions including commercial banks and finance companies, Thai and foreign alike, which account for more than half of total issuance in 2006. At the end of August 2007, the outstanding volume of commercial papers registered with the ThaiBMA was THB 246.6 billion or 27.5% of total corporate bonds. Commercial papers can be offered either on a public offering or private placement basis.

- **Bills** According to Thai law, the main difference between promissory notes and bills of exchange is that in promissory notes there are two parties involved, i.e., payer and payee, while in bills of exchange there are three parties: issuer, payer and payee. In practice issuer and payer could be the same person.

In 2006, THB 535.3 billion worth of bills were issued in the market, almost all of which had tenor of less than 270 days. Commercial banks have used bill issuance as an alternative for short-term fund raising due to its flexibility as compared to deposit taking. Bills can be offered periodically as and when needed. Banks may determine different yields and tenors.



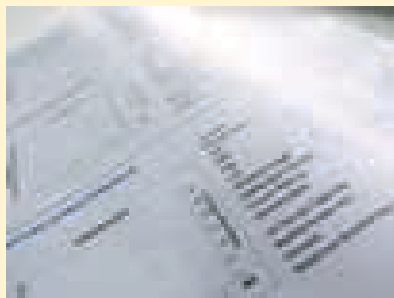
Investors are more limited to institutional investors and large depositors.

- **Short-term Debentures** According to the SEC, short-term debenture means debenture having tenor of less than 270 days from issue date. Commercial banks, both Thai and foreign, are the main issuers of this type of instrument. Offering maturities vary widely such as 3, 4, 5, 6, 7 or 12 months. In 2006, short-term debentures worth THB 594.9 billion were issued, accounting for 53% of commercial papers issued in the year.

Structured Bonds

Structured bonds can be categorized into two groups: derivative bonds and securitized bonds.

- **Derivative Bonds/Notes** According to the SEC, derivative bonds are debt instruments with the following characteristics:





1. The amount of return is linked with a pre-determined underlying variable other than interest rate.

2. Total or partial amount of principal to be redeemed is linked with a pre-determined underlying variable. Variables which are currently allowed by SEC include equity price/index, gold price/index, foreign exchange rate, commodity price/index and credit rating.

3. Total or partial amount of return or repayment of principal at maturity can be made in the form of securities and other types of assets, except for newly issued shares of the issuer.

As of August 2007, there are 10 issues of derivative bond registered with the ThaiBMA with an outstanding amount of THB 1,160.2 million. Derivatives are issued in both long term and short term tenor. Issuers are mainly commercial banks such as Siam Commercial Bank, Kasikornbank, and ABN Amro Bank. Most issues are Index-linked Notes of which return is tied to stock indices such as SET50, Nikkei 225, and Commodity Index.



- Securitized Bond is an instrument derived from transforming assets into securities. Securities holder is entitled to benefit from cash flow generated by such assets. Assets which can be securitized include automobile loans, housing loans, property rents and credit card receivables. As of August 2007, there were 22 issues of securitized bonds worth THB 41.43 billion. The largest issuer was Dhanarak Asset Development Company Limited (DAD), an asset development company owned by the Ministry of Finance. DAD planned to issue a total of THB 24,000 million within 3 years. The proceeds would be used to finance the construction of Bangkok Metropolitan Government Office Center or the Government Complex. The bonds are backed by cash flow from rental income from Treasury Department, Ministry of Finance. As such, the bond is regard as low risk. In 2005, DAD SPV issued four tranches worth THB 10,300 million with maturities of 7, 10, 15 and 20 years. In 2006, two more issues were launched totaling THB 5,500 billion with maturities of 14 and 19 years. Apart from DAD, there are also other securitized bonds backed by other types of assets such as car loans, personal loans and credit card receivables.

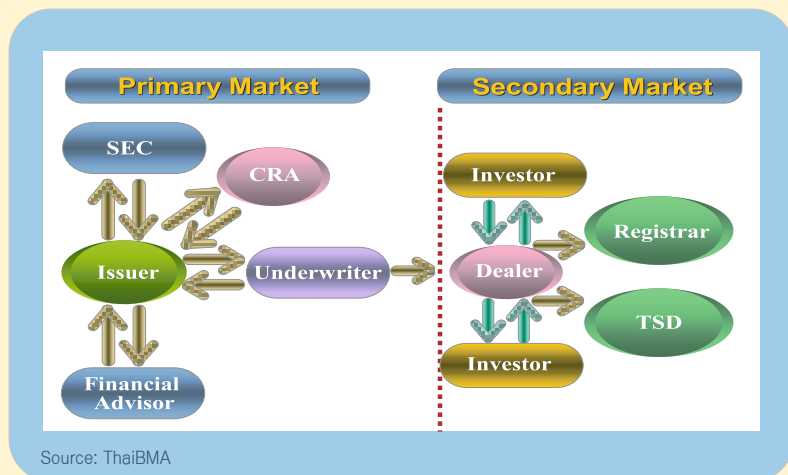
Foreign Bonds

Since 2005, MOF has allowed certain types of foreign institutions to issue Baht denominated foreign bonds in Thailand. Such institutions include international financial institutions, foreign governments, financial institutions of foreign governments and foreign entities. The Asian Development Bank (ADB) issued THB 4 billion worth of domestic bonds on May 24, 2005. This was followed by the THB 3 billion worth of bonds issued by Japan Bank for International Cooperation (JBIC) on September 7 of the same year. In 2006, there were 3 issues of foreign bonds, 2 of which were issued by ADB worth THB 6.5 billion and another issued by CitiGroup, Inc., worth THB 2.6 billion. In April 2007, 3 more issues were launched worth THB 4.4 billion; 2 of which were issued by Citigroup Inc. and the other by Emirate Bank International PJSC. KfW Bankengruppe in July 2007 added the latest issue of foreign bond worth THB 3 billion. The total outstanding value of foreign bonds stood at THB 23.50 billion at the end of August 2007.

2.4 Market Structure

Structure of bond trading comprises two markets: primary market and secondary market. Processes of bond trading are different between government sector bonds and corporate bonds. Trading in government securities do not come under SEC regulation as in the case of corporate bonds.

Figure 2.5
Thai Bond Market Structure



Primary Market

Primary market trading is a process whereby issuer sells bonds to first hand investors which is called direct financing. Processes differ between government bonds and corporate bonds. For example, auction method is used in most cases of government securities except for SOE Bonds and Saving Bonds which are offered through underwriters. Meanwhile, corporate bonds are usually sold under underwriting process even though it is no longer required under current SEC regulations.

Government Securities Offering Method

Government securities are offered in the primary market by means of auction and underwriting. However, most of them are issued through auction method. Units which run the auction for government securities are the Bank of Thailand and the Public Debt Management Office (PDMO). The BOT is responsible for the auction of T-Bills, Loan Bonds, BOT Bonds and FIDF Bonds while PDMO is responsible for SOE Bonds in both categories; with and without government-guarantee.

The Bank of Thailand has set up a bidding system for government securities comprising two types:

1. Competitive Bidding - Eligible participants are required to submit a bidding form through electronic channel (e-Bidding) within 9:30 am on the auction date. A bidder should indicate the desirable size and yield with a minimum amount of THB 100 million.

2. Non-Competitive Bidding - Those who are interested in this kind of bidding has to submit subscription forms to primary dealers by 12:00 am on a day prior to the auction date. The primary dealer then gathers all the forms and submits to the Bank of Thailand by 2:00 pm on same the day. Bidders indicate only the size they prepare to take which should be between THB 4-40 million.

Both types of auctions are opened exclusively to institutional investors as specified by issuing authorities.



However, there is no transfer restriction so retail investors may purchase such bonds in a secondary market. Auction result is posted on BOT website: www.bot.or.th approximately 11:00 am on the auction date. The pricing method for government securities bidding is called ‘Multiple prices’ whereby BOT picks the lowest bidding price. If an issue amount is unfulfilled, subsequent lowest prices will be selected until the amount is fully covered. As such, several prices could be accepted in each auction. For those who enter non-competitive bidding, bonds will be allotted ratably at the average rate of accepted prices from competitive bidding.

With regards to SOE Bond auction, PDMO usually calls for bid among underwriters on a full commitment basis. Bidders should submit underwriting proposal detailing yields, fees and all other expenses together with names of related parties. Bidding result is posted on PDMO website: www.pdmo.mof.go.th approximately 11:00 am on the auction date.

Government securities which are offered through underwriting mechanism are:

Saving Bonds The target group of Saving Bond is retail investors so selling through underwriters such as commercial banks is an efficient channel. Investors may purchase the bond at any branch of designated bank throughout the country.

SOE Bonds Some state enterprises manage to issue bonds on their own instead of having PDMO call the bidding for them. Those SOE are mainly financial institutions which prefer flexibility in terms of fund raising. They are for example the Export-Import Bank of Thailand (Exim Thailand), the Second Mortgage Corporation (SMC), etc.





Corporate Bond Offering Method

Corporate bonds are under the SEC supervision, hence offering process is also governed by the SEC. In principle, bond offerings in private sector are divided into two categories:

1. Public offering - An issuer who wishes to offer bonds to general public has to seek approval from SEC. If an approval is obtained, bonds may be issued periodically in whole or in part within three years from approval date. However, issuer is required to submit details prior to each offering except in the case of securitized bond where approval is needed for each offering. Credit rating is also a requirement for public offering issue and the issue has to be registered with the ThaiBMA.

2. Private placement offering - A transaction categorized as a private placement offering has to meet one of the following conditions;

- issue amount not exceeding THB 100 million and the issue is to be offered to institutional investors only.
- offer to specified group of no more than ten investors
- offer to existing creditors of the issuer
- others as permitted by SEC

Neither detailed filing, credit rating nor registration with the ThaiBMA is necessary for private placement approval. However, transfer restrictions have to be filed. SEC does not allow public advertisement in this case.

Presently, SEC has set guidelines for issuing and selling bonds in accordance with types of securities as follows:

- Bonds/debentures, convertible debentures, securitized bonds, short-term bonds and derivative bonds are governed by the SEC Notification Gor Yor 31/2549 Re: Application and Permission to Offer Newly Issued Debentures.
- Bonds offered to offshore investors are governed by the SEC Notification Gor Jor 47/2541 Re: Regulation, Condition and Process with regards to Application and Permission to Offer Newly Issued Bonds to Foreign Investors.
- Foreign bonds offered to commercial banks in Thailand are governed by the SEC Notification Gor Jor 2/2549 Re: Offering of Foreign Debentures to Commercial Banks in Thailand.
- Foreign bonds issued in Thailand are governed by the SEC Notification Gor Jor 4/2549 Re: Offering of Foreign Bonds or Foreign Debentures in Thailand.

Secondary Market

Prior to the promulgation of the SEC Act in 1992, trading of debt securities had already been done through SET. At that time, only corporate and SOE bonds were listed on the exchange as there was lack of supply of government bonds. Before 1992, number of corporate entitling to issue bonds was also limited only to 'public company'. At a later stage, laws



were amended which give access to SET listed companies to issue bonds. As a consequence, SET had become a secondary market for equities as well as for bonds.

Following the enactment of the SEC Act, Public Company Law had also been amended to ease public company registration. Companies with an intention to raise fund from the general public could be registered as a public company. Hence, more public companies had been set up. Consequently, corporate bonds were no longer limited to SET listed companies while bonds trading also occurred outside the SET. Meanwhile, SEC had set up a committee to find a solution for an appropriate structure of the secondary bond market and later appointed the Association of Securities Companies to set up a Thai Bond Dealer Club (BDC) in 1994. The status of the club was later changed to The Thai Bond Dealing Center (ThaiBDC) in 1998 and has become The Thai Bond Market Association (ThaiBMA), a unit under the SEC Act since 2006.

Over-the-Counter vs. Exchange Traded

Bond trading in Thailand can take the form of either over-the-counter (OTC) or exchange traded. Bonds are normally traded in a big lot and are infrequent as compared to equities. As such, most bonds circulated in the secondary market are traded through OTC whereby negotiation between buyer and seller may take place over telephone or through electronic trading platform. The OTC electronic trading system will collect prices from bidders and takers and publicize to subscribers.

The system also provides communication channel among subscribers for executing transaction. The ThaiBMA had developed the OTC trading system called iDeal for this purpose and was later sold to SET. It was further developed by SET and was renamed FIRSTs (Fixed Income and Related Securities Trading System).

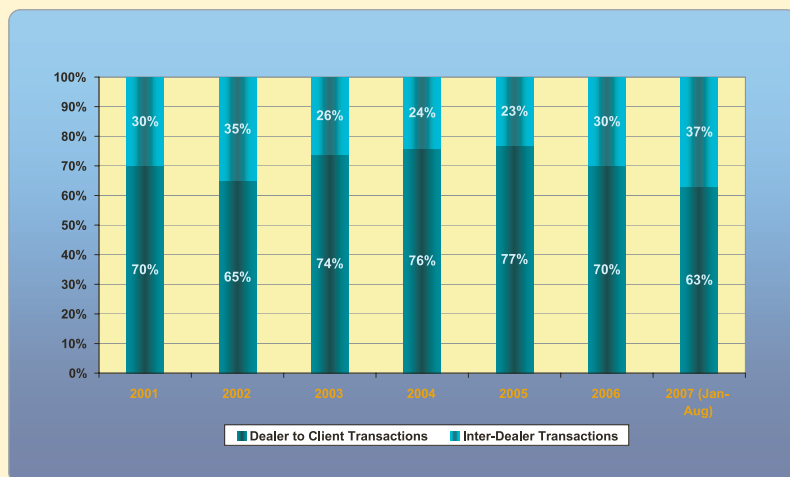
Trading in the secondary market can also be grouped into two types: Dealer-to-Dealer (Inter dealers) and Dealer-to-Client.

Inter dealer trading means transactions between those who hold dealing license from the SEC. They are for example securities companies, finance companies, and Thai as well as foreign commercial banks. At present, almost 60 companies have been awarded dealing license but only ten are active dealers all of whom are commercial banks. Inter dealer trading is usually done through broker called Inter-Dealer Broker (IDB) who acts as facilitator to the transaction. Currently, there are two Inter-Dealer Brokers in Thailand namely ICAP and Wallstreet.



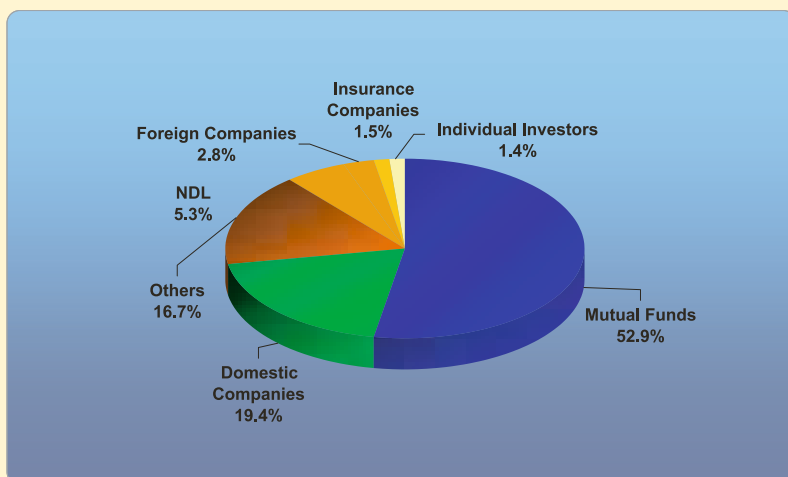
Dealer-to-Client transactions register a much larger volume than Inter dealer transactions. During 2001-2006, the proportion of Dealer-to-Client transactions to Inter dealers trading was 70 to 30. This is due to the fact that some investors are also allowed to participate directly in government securities auctions. Those investors are for example the Government Pension Fund and the Social Security Fund. Major investors trading bonds with dealers during the first 8 months of 2007 were mutual funds (52.9%) and domestic companies (19.4%).

Figure 2.6
Bond Trading by Type of Transactions
(2001-August 2007)



Source: ThaiBMA

Figure 2.7
Composition of Dealer to Client Transactions
(January-August 2007)



Source : ThaiBMA

Notes : 1) NDL refers to local financial institutions that do not have Dealer Licenses (securities or debt securities trading license)

2) Others include Government Pension Fund, Social Security Fund, and the Bank of Thailand.

2.5 Market Players

1. Underwriters

Underwriter plays a key role in bond placement with investors and facilitates the issuing of bonds throughout the process. Forms of underwriting are:

- Firm Commitment Underwriting. The underwriter undertakes to sell the whole amount of bond issue. If the



bonds are not fully subscribed, the underwriter is obliged to take up the remaining amount. Domestic bond issues are mostly done on a firm commitment basis.

- **Best Effort Underwriting.** The underwriter uses the best effort to sell the bond issue. If the bonds are not fully subscribed, the underwriter is under no obligation to take up the remaining portion. This method is rarely used in the Thai market and the underwriting fee is lower than a firm commitment basis.

- **Standby Commitment.** When the issuer offers securities to a specific group of investors, it may enter into an agreement with an underwriter to take up the remaining portion since the bonds are unable to be offered to other investors.

Entities qualified for underwriters as specified by the SEC are commercial banks, securities companies (except mutual fund companies), finance companies, credit foncier companies and SFIs. They are required to maintain capital fund and set aside reserves in accordance with the SEC guidelines. Currently, there are 59 companies holding underwriting license, 40 of which are securities companies which own license to underwrite both equities and debt securities and 19 are commercial banks which are granted only license for debt securities underwriting. Of all underwriting companies, only 15 engaged in underwriting business in 2006, mostly commercial banks.

Table 2.1
Number of Underwriters

	No. of license	Transact business	percentage
Commercial banks	19	11	18.64
Securities companies	40	4	6.78
Total	59	15	25.42

Top five active underwriters in the first half of 2007 are shown in the table below. They were all commercial banks with Siam Commercial Bank topping the list.

Table 2.2
Top 5 Underwriters during January-June 2007

Ranking	Underwriters	No. of Issues	Amount (THB mln.)	% Shares
1	Siam Commercial Bank Public Company Limited	7	17,424.57	23.11
2	Standard Chartered Bank (Thai) Public Company Limited	5	11,500.00	15.25
3	Kasikornbank Public Company Limited	7	10,028.66	13.30
4	Citicorp Securities (Thailand) Limited	6	7,105.00	9.42
5	Bangkok Bank Public Company Limited	5	6,865.00	9.10

Source : ThaiBMA



2. Financial Advisers

A financial adviser gives advises and opinion to issuer and assists in preparing necessary document in applying for issuance approval and obtain credit rating for the issue. They also take part in preparing marketing materials. Financial advisor and underwriter are usually the same entity. However, issuer may appoint different person especially in the case of complicated bond issue. Currently, there are 72 companies granted financial advisory license by the SEC.

3. Investors

Investors in bond market are mainly institutional investors comprising financial institutions, SFIs, the Bank of Thailand, fixed income mutual funds, provident funds, Government Pension Fund, Social Security Fund, life and non-life insurance companies, and offshore investors.

Financial institutions are active in government securities sector and have held the largest proportion of such securities for a number of reasons. The first and foremost is probably the Bank of Thailand's requirement for commercial banks to maintain a certain amount of government securities as a liquidity reserve. In addition, those who are BOT-appointed primary dealers have to play a vital role in market making for the auctioned bonds. Banks also act as investors for portfolio management to enhance yield particularly in a declining interest

rate environment. At the end of June 2007, commercial bank and other financial institutions including SFIs held approximately 58% and 67% of government bonds and state enterprise bonds, respectively.

While households and non-profit institutions who are retail investors held 22% of government bonds, their holding of state enterprise bonds was insignificant. On the contrary, corporate bonds had the highest proportion of retail investors at 49.4% at the end of June 2007, comprising 39.2% of individual investors and 10.2% of corporations. Among institutional investors, a group of contractual savings funds was the largest investor holding 16.6% of total corporate bonds at the end of June 2007. Mutual fund companies came second with a total holding of 12.7%, while insurance companies and financial institutions each held about 8% of corporate bonds.

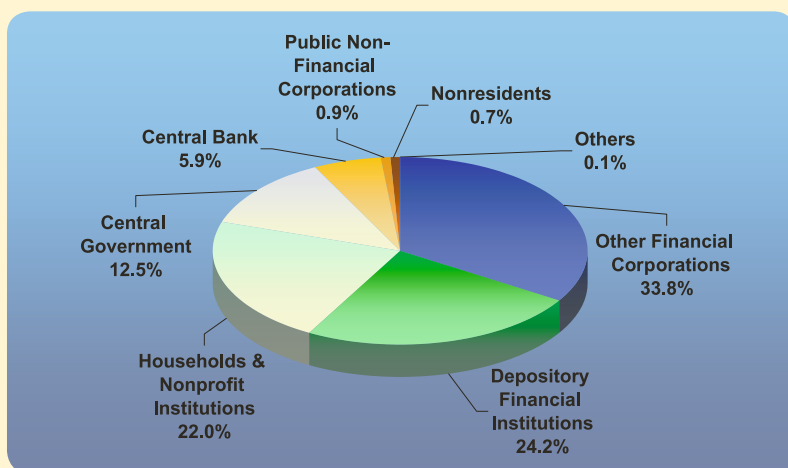
Contractual savings funds are also a powerful group of investor in the Thai bond market with several hundred billion Baht under their management. This group comprises the Government Pension Fund, the Social Security Fund and provident funds.

Mutual funds companies have an increasing role in the bond market in the past few years thanks to government policies. In order to stimulate long-term saving, the government provides tax incentives for individual who invests in Retirement Mutual Funds (RMF), a type of mutual fund which requires



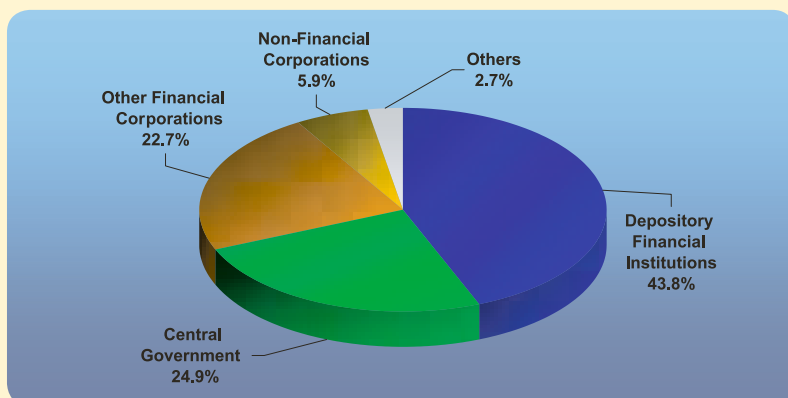
five consecutive yearly investments so as to be qualified for tax deductions. Since inception, RMF has proved to be successful in attracting retail investors to this type of products. Mutual fund companies also create other types of fixed-income funds such as government bond funds and principal-protected funds to attract those who prefer steady income and low investment risks. Nonetheless, these funds pay higher yield as compared to bank deposits as they are not subject to 15% withholding tax as in the case of interest received from bank deposits. In 2002, out of 324 mutual funds sold to domestic investors, 89 were fixed-income funds worth THB 89,962 million or 22% of total net asset value. At the end of July 2007, the number of domestic mutual funds increased to 820, of which 419 were fixed-income mutual funds worth THB 879,926 million or an increase by almost ten-fold from 2002. This represents 58.8% of total net asset value of all outstanding domestic mutual funds. Such a high growth of mutual funds market has helped stimulate the Thai bond market as well.

Figure 2.8
Holders of Government Bonds and Treasury Bills
(As of June 30, 2007)



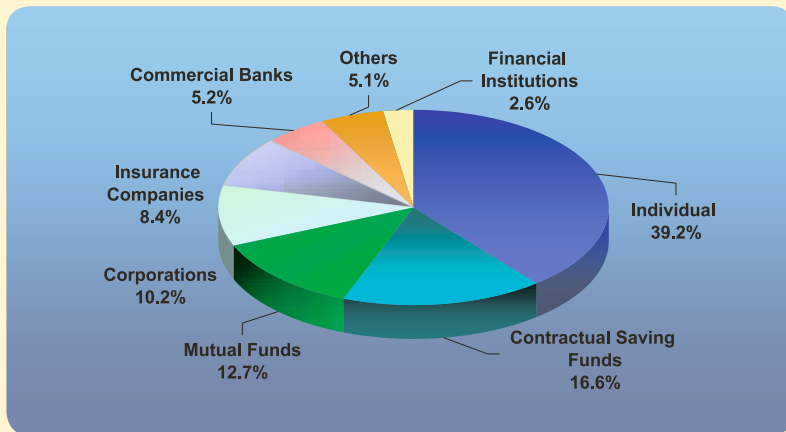
Sources: BOT, PDMO, TSD, custodians

Figure 2.9
Holders of State Enterprise Bonds
(As of June 30, 2007)



Sources: BOT, PDMO, TSD, custodians

Figure 2.10
Holders of Corporate Bonds
(As of June 30, 2007)



Sources: BBL, KBANK, BAY, SCB, TMB, BFIT and TSD.

- Notes:
- 1/ Financial institutions include EXIM Bank, Government Housing Bank and Government Savings Bank.
 - 2/ Contractual saving funds comprise the Government Pension Fund, the Social Security Fund and provident funds.
 - 3/ Others include the Government sector, private funds, co-operatives, foundations, and temples.

4. Dealers

A dealer is a financial institution licensed by the SEC to trade debt instruments. Institution which is qualified for dealer's license has to be a commercial bank, a securities company (excluding mutual fund company), a finance company, a credit fonciers company, or a specialized financial institution. The SEC has stipulated that the company granted debt instrument trading licence must designate qualified trader who has passed the examination and registered with the ThaiBMA. At present, there are 58 companies obtaining dealer's license from SEC, 19 of which are commercial banks and 39 are securities companies. Commercial banks play an active role in debt instrument trading. In the first half of 2007, top ten active dealers are all commercial banks.

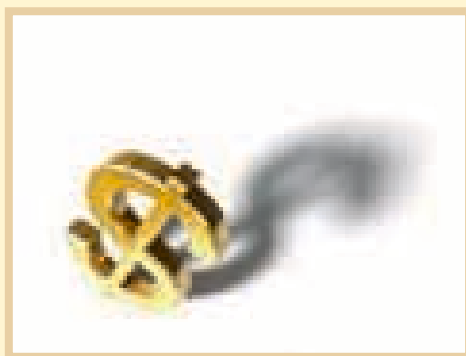


Table 2.4
Top 10 Active Dealers in Outright Trading
(Jan-Jun 2007)

Unit: THB Million

Rank	Dealers	Outright Trading Value*	Market Share (%)
1	Siam Commercial Bank Public Company Limited	1,367,706.70	20.62
2	Kasikornbank Public Company Limited	1,045,239.27	15.76
3	Bank Thai Public Company Limited	632,105.92	9.53
4	Bangkok Bank Public Company Limited	588,462.34	8.87
5	TMB Bank Public Company Limited	516,790.22	7.79
6	United Overseas Bank (Thai) Public Company Limited	431,386.23	6.50
7	Deutsche Bank AG, Bangkok Branch	405,718.66	6.12
8	The Hongkong and Shanghai Banking Corp Limited	280,546.68	4.23
9	Standard Chartered Bank	276,426.65	4.17
10	Bank of Ayudhya Public Company Limited	265,821.69	4.01
	Others	823,637.69	12.42
	Total	6,633,842.05	100.00

Source: ThaiBMA

Note: Include outright trading of treasury bills and corporate bonds.

C

HAPTER 3



LEGAL AND REGULATORY FRAMEWORK
OF THE THAI BOND MARKET



3.1 Related Regulatory Bodies

Bond market development is a crucial policy of the government in promoting sustainable growth for the capital market. Currently, there are three major government and public agencies that have pivotal role in formulating policies and regulating the Thai bond markets: The Ministry of Finance (MOF), the Bank of Thailand (BOT), and the Office of the Securities Exchange Commission (SEC).

The MOF is not only responsible for the policy making of public debt management, which involve the layout of policy framework and the structuring of government bond issuance, but also serves as a catalyst in laying the overall development strategies for the country's bond market. One of such crucial tasks is the push for reform and implementation of laws which is influential to the bond market such as tax laws.

The Bank of Thailand acts as the manager of government bond auctions for the MOF, while at the same time regulates the primary dealers who are major players in the secondary market as well as supervises commercial banks and other types of financial institutions in the financial market.

Meanwhile, the SEC serves as the regulator of the capital market, supervising the offering of securities by the private sector in the primary market, trading of debt instruments in the secondary market, and supervises the operators of securities business such as securities companies and other related organizations.

As the three regulators all play an influential role to the bond market, any policy measures formulated by them are therefore essential for the market development.

Figure 3.1
Regulatory Framework of the Thai Bond Market





The Ministry of Finance

There are three agencies under the MOF which are closely related to the bond market, namely, the Public Debt Management Office (PDMO), the Fiscal Policy Office (FPO), and the Revenue Department (RD).


The PDMO was established by the Cabinet Resolution on September 21, 1999, after the country encountered the economic crisis. The objective was to unify the public debt and liability management functions which were previously handled by various separate units of the MOF. The PDMO becomes the sole agency responsible for the management of public debts under related laws and regulations such as the formulation of borrowing plans, including domestic and external, short-term and long-term borrowing, the arrangement for debt commitment, debt management and debt settlement domestically and abroad of government agencies and state enterprises in corresponding to the national economic and social development plan as well as the government policy, which cover the policy of providing guarantee for state enterprises and other organizations. However, the PDMO will not responsible for the borrowing of the BOT which are related to the country's international reserves management. In case of the debts of state enterprises which are financial institutions, the responsibility of the PDMO shall confine to only the debts that will create commitment for the government but shall not include the issuance of debt instruments which are normal business transaction of that financial institution.

Due to the fact that the responsibilities of PDMO are entirely related to public debts, PDMO therefore is directly in charge of the bond strategy, such as the size of issuance each year, life span of the bonds, and other conditions. Regarding the issuance process, the MOF appoints the BOT to undertake the function, except for state enterprise bonds issued occasionally which will be arranged by the PDMO.

The FPO has the responsibilities to provide recommendations on policy and measures regarding fiscal and taxation, financial system, savings and investment, capital market development and the planning and arrangement about international financial and banking cooperation. The agency therefore, has a vital role in setting the direction of the financial system including money, equity and bond market.

The Revenue Department has the principal functions of collecting various types of taxes; therefore, it has the influential role in stimulating the development of the market via tax incentives.

After the economic crisis, there was a need to issue huge amount of government bonds. The MOF therefore mapped out a plan to develop the domestic debt market especially on the aspect of efficiency in issuing government bonds. A working group on the development of the bond market was set up by the MOF in 1998 which resulted in a number of developments such as the issuance of government bonds on a regular basis and at an adequate amount which enables the creation of



reference interest rate in the market, the publication of schedules for public debt issuance to give prior notice to investors, etc. In addition, the MOF has also proposed the amendment to existing laws which allows the government to issue government bonds despite budget surplus.

The Bank of Thailand (BOT)

The BOT started operations on December 10, 1942 with the main tasks to promote monetary stability, formulate monetary policy and supervise operations of financial institutions as well as providing banking facilities to financial institutions. The BOT has adopted “inflation targeting policy” since 2000 whereby the Monetary Policy Board (MPB) has the authority to set the direction of monetary policy and refine the inflation targeting framework to suit the Thai economy. The MPB was replaced by the Monetary Policy Committee (MPC) in 2001. Under the inflation targeting framework, the BOT implements its monetary policy by influencing short-term money market rates via the selected key policy rate, currently set on the 1-day repurchase rate. The MPC signals shifts in monetary policy stance through announcement of changes in the key policy rate.


Following the economic crisis, the BOT had implemented several measures which contributed to the development of both the primary and secondary government bond market: issuance of BOT Bonds to enhance market liquidity, improvement of bond issuance process to meet international standards, introduction of a primary dealer system to encourage more participation of

commercial banks in the market, and the effort to replace the existing repurchase market with the Private Repo Market.

- **Development of the Private Repo Market**

At present, the volume of repo transaction in Thailand is still at negligible level. All transactions done in the current BOT-operated repo market are for financial institutions' liquidity adjustment. The market is distorted as credit risks of counterparties are not reflected in the interest rate charged in each tenor since all transactions are done by the BOT. Accordingly, the BOT has tried to encourage the establishment of private repo market so that financial institutions can access short term fund or have an avenue for short term investment in place of the current repo market. This will enable BOT to gradually phase out of the current distorted market and change the role of this window for purely monetary operations to absorb or inject market liquidity. The private repo market is deemed as a mechanism to facilitate bond market development by adding liquidity to the bond market as the collateralized bond is transferred to the





lender, thus, enabling him to use it for further transaction provided that the security has to be returned before its contract maturity. In addition, it encourages investment in bonds as investors can use bond as collateral to obtain cash if needed, stimulates the financial institutions to be active market makers as short sellers can borrow bonds through repo market for delivery and enhances yield of the bondholders by lending it out. The BOT plans to abolish the existing BOT-operated repo within 2007.

- **Primary Dealer System (PD)**

While allowing the financial institutions to adjust to the new privately run repo market, BOT have started, since the year 2000, to conduct bilateral repo transactions exclusively with primary dealers in parallel with the existing repo market. This new bilateral repo market was established to support the new monetary operations under inflation targeting, with modern concepts of applying the initial margin and mark-to-market concept to the collateral.

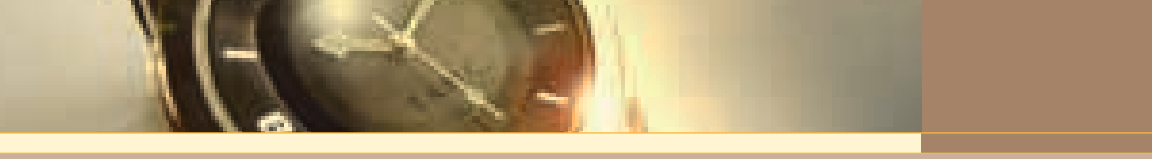
PD system started in 2002 whereby the Bank of Thailand appointed a set of “Primary Dealer” to act as principal intermediaries in trading of government securities. The PD system is aimed to support the auction process in the primary market and to enhance liquidity in the secondary market as well as facilitating open market operations. There are 2 types of PDs appointed by the BOT:

(1) **PDs for outright transactions.** These PDs are required to act as market makers and to provide daily two-way quotations for outstanding government bond issues. Furthermore, they must frequently participate in the auction of government securities and maintain the percentage of government securities allotted in the primary market. BOT may review the list of PDs from time to time based on their performances. Currently, there are 9 commercial banks who act as PDs for outright transactions namely; Bangkok Bank, Kasikornbank, Citibank, Deutsche Bank, Siam Commercial Bank, United Overseas Bank (Thai), Standard Chartered Bank (Thai), ABN-Amro and Hongkong and Shanghai Banking Corp., Limited

(2) **PDs for bilateral repo transactions.** This group of PDs will act as counterparties for bilateral repo transactions with the BOT as well as intermediaries in the transmission of bilateral repo transactions to other market participants. Current PDs in this category include Bangkok Bank, Kasikornbank, Siam Commercial Bank, Standard Chartered Bank (Thai), Government Savings Bank, United Overseas bank (Thai), Hongkong and Shanghai Bank, Deutsche Bank and Krungthai Bank.

- **BOT Bond Issuance**

Since February 2003 BOT has issued the BOT bonds on a continuous basis to enhance liquidity in the bond market. The BOT bonds are mainly fixed-coupon bonds with maturities ranging up to two years. In 2007, BOT began to issue a three-



year floating rate bond based on BIBOR (Bangkok Interbank Offered Rate). The BOT also adjusted the issuance schedule by reducing the auction frequency and enlarge the issue size of each bond to approximately 50-70 billion baht per issue.

The Securities and Exchange Commission (SEC)

The SEC was established in 1992 under the promulgation of the SEC Act to performs the function of the capital market supervisory with the status of an independent state agency. Under the current SEC Act, the SEC Board of Directors is chaired by the Finance Minister. However, in 2006, the Board has proposed for the amendments of the Act aimed to promote independency of the SEC. The Finance Minister will no longer chair the SEC Board. Only industry experts will be eligible for the Chairman nomination. In addition, A separate capital market supervisory board will be set up and chaired by the Secretary-General to perform day-to-day operation of the SEC while the Board of the SEC will focus on capital market policy matters.

The SEC's role in supervising and developing the Thai capital market can be summarized into 6 major areas:

(1) Securities Issuance and Business Takeover

Under the SEC Act, eligible equity or hybrid instrument issuance is restricted to public limited companies only (including the incorporators of public limited companies who can issue and offer equities), while issuance of debt

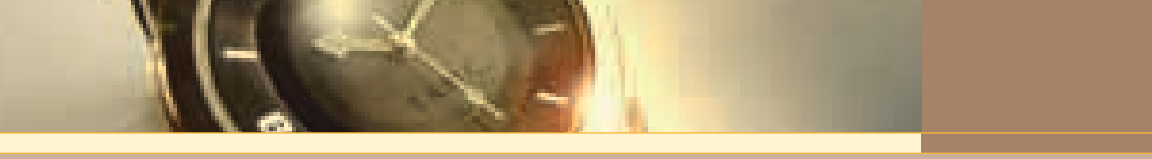
instruments can be undertaken by both public limited companies and limited companies. Issuers who wish to make a public offering of securities must first obtain approval from the SEC by filing a registration statement and draft prospectus which must disclose and contain accurate, complete, sufficient, and timely information necessary for investors to make investment decisions. Furthermore, issuers must report updated information for public disclosure.

Companies that offer securities to the public are required to disclose quarterly financial statements in addition to audited annual financial statements. The statements must be prepared and presented according to the International Accounting Standards (IAS). Currently, all material aspects of the Thai Accounting Standards have been adopted from the IAS. The SEC can also impose additional accounting practice and disclosure requirements upon listed companies. Company financial statements are required to be audited by “SEC approved auditors”, and the law requires that such external auditors be independent.

With respect to takeover and change of control, the takeover sections of the SEC Act provide shareholders with adequate information and fair treatment.

(2) Securities Businesses

Under the SEC Act, “securities businesses” means securities brokerage; securities dealing; securities underwriting; investment advisory services; mutual fund management; private



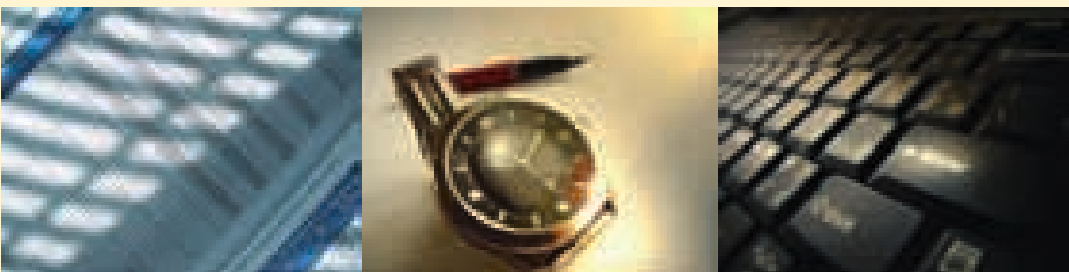
fund management; and other businesses relating to securities as specified by the Minister upon the recommendation of the SEC which currently include securities borrowing and lending; securities financing; inter-dealer brokerage; and venture capital fund management. The SEC Act requires all operators of securities businesses to be licensed by the Minister of Finance. Applications and screening are done at the SEC. The requirements include initial capital adequacy, a fit-and-proper capability for management, directors and controlling shareholders, and an assessment of internal controls and risk management and supervisory systems.

In addition, the SEC supervises securities businesses according to their risks, whether they comprise financial risk, operation risk, internal control risk, customer relation risk, information technology risk or other areas. Each company must have sufficient capital to withstand business risk, whereby different weights are assigned to each business area, with the main objective of maintaining the stability and credibility of the whole system rather than the survival of an individual securities company. Furthermore, the SEC also pays particular attention to client treatment and the structure of the securities businesses in fostering efficiency in securities trading and maintaining competition at an appropriate level.

(3) Investment Management Businesses

Investment management businesses offer an important alternative investment vehicle for investors, with the advantage of risk diversification, and the employment of professionals who are experts in investment. Types of investment management include mutual fund management, private fund management (both for retail clients and institutional clients, e.g. provident funds), and derivatives fund management.

As the operators of investment management businesses are entrusted to take care of the assets of the investing public, it is necessary to conduct a relatively stringent supervision on them to make sure that they are knowledgeable and capable, and perform their fiduciary duties in managing clients' assets with honesty, integrity, and for the utmost benefit of investors.





(4) The Exchange

Under the SEC Act, with the exception of the SET, the establishment of any other organized securities trading centre requires a license from the SEC. At present, the SET is the only organized securities market in Thailand. It has the status of the national exchange established by the Securities Exchange of Thailand Act B.E. 2517, and authorized by the SEC Act. The SEC's authority to approve SET rules pertaining to listing, membership, member's conduct, member inspection, and other important matters prior to the rules becoming effective, permits it to supervise and impose conditions on the SET to ensure the market operates in accordance with the SEC's policies.

The SEC conducts regular inspections on the SET to assess its arrangements in market surveillance and trading supervision. Listing rules must be approved by the SEC. All securities admitted to listing and trading must already have been approved by the SEC for offering, and product design and trading conditions for new types of securities are taken into account at that stage. Direct access to the trading system is granted only to members, and admission rules require the SEC's approval. Membership is open to all qualified securities companies with a brokerage license.

(5) Unfair Securities Trading Practice

In order to maintain confidence and fairness in the Capital Market, the SEC closely monitors securities companies and the entities under supervision. When there are reasonable grounds to suspect that there is an offence against provisions under the SEC Act, SEC competent officers are empowered to conduct on-site inspections at the premises of regulated entities or any other persons or locations that possess or hold relevant information, documents, or evidence in relation to the offence. The investigative powers under the SEA are sufficient for the SEC to obtain all information necessary for the investigation. The offences include insider trading, price manipulation, false or misleading disclosure, operating a securities business without a license, and fraud by company executives etc. The SEC takes strict enforcement action against wrongdoers in terms of both administrative and criminal sanctions.

The SEC has no power in pursuing legal civil proceedings to claim compensation on behalf of investors, so investors must pursue legal civil proceeding by themselves. However, if investors have suffered damages or have disputes with securities business intermediaries for breach of contract or non-compliance with securities law or provident fund law, they may apply for arbitration procedure to settle their disputes.



(6) Derivatives Businesses

In 2003, the Derivatives Act B.E. 2546 was promulgated and came into force on January 6, 2004, an important step in the development of derivatives businesses and also one of the measures in the Capital Market Development Master Plan.

In setting up a derivatives exchange, the SEC sets rules for licensing and standards for the exchange, clearing house, and business operators that include dealers, advisors, and fund managers. The SEC has approved Thailand Futures Exchange Public Company Limited, which is a subsidiary of the SET, to engage as a Derivatives Exchange and Thailand Clearing House Co., Limited, which is a subsidiary of Thailand Securities Depository Co., Limited, to engage as a Clearing House. In addition, the SEC has also prescribed rules regarding the registration and/or licensing to undertake derivatives businesses as derivatives agent, dealer, advisor, and fund manager.

3.2 Key Legislation Related to the Thai Bond Market


1. **Public Debt Management Act B.E. 2548 (2005)** formulates the framework and regulations for public borrowing including issuance of government bonds, treasury bills, state enterprise bonds, as well as borrowing from financial institutions. The PDMO on behalf of the MOF is empowered

to manage the public debt systematically and efficiently and to monitor the overall borrowing of the country to ensure that the public debt status is in line with the nation's financial and fiscal position.

In 2007, there was a proposal to amend the Act by allowing the MOF to issue bonds despite a budget surplus in order to ensure sufficient circulation of bonds in the market and to prevent the benchmark bond from being affected.

2. Securities and Exchange Act B.E. 2535 (1992) stipulates the role and responsibilities and the establishment of the Office of the Securities and Exchange Commission (SEC) to serve as a centralized body for of capital market supervision. The law stipulates the framework and guidelines for the regulation of securities business and the operators of securities business as well as the role and responsibilities of organizations related to the capital market, such as securities exchange, association related to securities business, depository centers, etc. In 2007, amendments to the Act was proposed to revamp the structure of the SEC and to promote good governance of companies issuing securities. The law is pending consideration of the MOF.

3. Bank of Thailand Act, B.E. 2485 (1942), the law stipulating the establishment of the Bank of Thailand, is accompanied by Section 12 of the Royal Decree Regulating the Affairs of the Bank of Thailand, B.E.2485 specifies the operations of the Bank of Thailand regarding bonds and debt



instruments. In addition, the Bank of Thailand Regulation regarding the Issuance of Bank of Thailand Bonds B.E. 2550 (2007) stipulates the regulations and procedures for the issuance of Bank of Thailand Bonds.

4. Derivative Act B.E. 2546 (2003) stipulates rules and regulations relating to the transaction the TFEX and accommodate the use of derivatives instruments or futures contracts for hedging against risks incurred by the fluctuation of foreign exchange, interest rates, stock index, as well as other products or variables.

5. Royal Enactment on Special Purpose Juristic Persons for Securitizations, B.E. 2540 (1977) stipulates regulations relating to securitization. Currently, the draft amendment to this Act which is aimed at clarifying the law and allowing wider coverage of various types of securitized products is under the Cabinet deliberation.

3.3 Domestic Bond Market Development Committee

In order to encourage stakeholders in the public and private sectors to participate in the formulation of domestic bond market direction and strategy, the MOF via the PDMO has set up a national committee called “Domestic Bond Market Development Committee” which is the steering committee chaired by the Minister of Finance, with other committee members comprising Governor of the bank of Thailand,

Secretary-General of the SEC, President of the SET, President of the ThaiBMA, representatives from relating agencies of the Ministry of Finance and experts from the private sector.

The steering committee is responsible for laying down the domestic bond market development strategy, resolving the impediments and obstacles to market development, and promote necessary infrastructure for the development of the Thai bond market.

Apart from the Steering Committee, there are also 5 sub-committees, namely, Primary Market Sub-committee, Secondary Market Sub-committee, Infrastructure Sub-committee, Taxes and Incentives Sub-committee, and IT and HR Development Sub-committee,

Figure 3.2
The Structure of Domestic Bond Market Development Committee



In 2005, the Domestic Bond Market Development Steering Committee resolved to undertake a major reform of the bond market. Major policy measures undertaken were:

- Integrating the bond trading system with the trading platform of the SET, empowering the SET to serve as a center for trading of all types of securities, i.e., equity, debt, and derivatives.
- Centralizing the bond depository and settlement system at the Thailand Securities Depository Co. Limited, (TSD) to improve service efficiency. In the past, transfers and settlements of government securities were done at the BOT, whereas TSD provided similar services to the private sector. However, BOT remains the registrar of government securities.

- Transforming the Thai Bond Dealing Center (ThaiBDC) from a bond trading center to an association related to securities business under the supervision of the SEC and changing its name to Thai Bond Market Association (ThaiBMA) accordingly. The ThaiBMA is mandated to assume the role of Self Regulatory Organization (SRO), the Bond Information Center and the Bond Pricing Agency.

3.4 Self-Regulatory Organization (SRO)

SRO is a private organization playing a significant role and serving as the forefront in supervising members to adhere to rules and regulations stipulated by SRO and following-up to ensure no violation so as to build up a fair trading practice in the market and lessen the supervising burden of the regulators. In this regard, the rules and regulations stipulated by SRO also come under the supervision of the regulators.

In Thailand, the law governing securities does not spell out the definition, meaning or responsibilities of SRO, but the SEC has delegated the authority and responsibilities to an organization to perform the duty of SRO through various mechanisms, for example, insisting that participants of the market must become members and giving such organization the authority to revoke the membership. SRO in the Thai equity market exists in the form of exchange, such as in the case of trading of ordinary shares where the SET operates the trading system and acts as the preliminary supervisor, or in the case of the derivatives market where TFEX takes similar



responsibilities. As for the bond market, which is of OTC nature where trade partners do the negotiation themselves with no trading centre, the ThaiBMA performs the duty of SRO in market surveillance and regulatory enforcement as well as serving as the information centre of the bond market.

ThaiBMA in the Capacity of SRO of the Bond Market

ThaiBMA was set up as an association involving in the securities business under Articles 231 and 232 of the SEC Act. It obtained a licence from the Office of the SEC on September 8, 2005 and has commenced operations since January 1, 2006.

Although the operations under the name of ThaiBMA began in 2006, the role and responsibilities of ThaiBMA has carried on since 1994 under the name of Bond Dealers Club

(BDC). It started operations on November 1, 1994 under the umbrella of the Association of Securities Companies with the objective of building up the infrastructure of bond trading among the bond traders in the secondary market. Thereafter, in 1997, the Bond Dealers Club changed its status as The Thai Bond Dealing Centre (ThaiBDC) to accommodate the fast expansion of the bond market at that time. It obtained a licence from the SEC to provide service as a bond trading centre under Article 204 of the SEC Act on December 9, 1997 and officially started the operation on April 22, 1998, before changing its role again in 2005.

ThaiBMA has received strong support from the authorities concerned in performing the functions of SRO and bond information center. In particular, a number of policy measures were undertaken by the SEC to strengthen such roles.





Table 3.1
Measures Undertaken by SEC to Support the SRO Role of ThaiBMA

1. Trade Reporting Requirement

The SEC stipulates that dealer has to report every trade transaction to the ThaiBMA no matter where the transaction takes place. Effective from January 1, 2006, the report must be sent to the ThaiBMA within 30 minutes after trade. Such requirement enhances the effectiveness of ThaiBMA market surveillance activities and promotes the transparency of trading information as information dissemination by the ThaiBMA can be made faster.

2. Requirement that every dealer must be member of ThaiBMA

The SEC requires that, effective from January 1, 2006, every dealer must be member of the ThaiBMA. This helps ThaiBMA to supervise its members more efficiently.

3. Requirement that every issue of debt instruments be registered with ThaiBMA

Since January 1, 2006, every issue of debt instruments must be registered with the ThaiBMA according to the stipulation of the SEC. As a result, the ThaiBMA is able to provide a more comprehensive range of information both in the primary and secondary market and will have sufficient information to calculate the reference price for investors.

4. Requirement that every trader must be registered with the ThaiBMA

The SEC stipulates that every dealer must have a registered bond trader in the office. In seeking registration with the ThaiBMA, the trader must meet the qualifications specified by the ThaiBMA and pass the examination arranged by the ThaiBMA. ThaiBMA will also closely monitor these traders to ensure that they update their knowledge and expertise continuously.

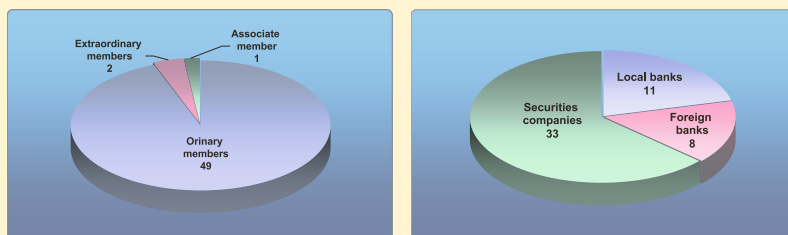
Members of ThaiBMA

Members of ThaiBMA are divided into three categories subject to nature of business and volume of transaction:

1. Ordinary member – a financial institution holding a debt trading license (Dealer).
2. Extraordinary member – a company holding an inter-dealing broker license (IDB).
3. Associate member – a dealer that in the past one year had a monthly average trading value of less than THB 100 million.

As of August 2007, ThaiBMA had 49 ordinary members, 2 extraordinary members and 1 associate member.

Figure 3.1: ThaiBMA Membership Structure



Role and Functions of ThaiBMA

1. Market Monitoring & Surveillance

According to the SEC regulations, dealers have to report trade transaction to the ThaiBMA while the ThaiBMA shall monitor the market movement and each trade traction to

ensure that there is no violation of the regulations, wrongful conduct, or unfair trading. In undertaking the surveillance functions, the ThaiBMA strictly adheres to the SEC Act, the Association’s Code of Ethics, and ThaiBMA’s Notifications Regarding Wrongful Conducts in Bond Trading. Besides daily and regularly monitoring, the ThaiBMA also report to authorities concerned such as the SEC and the BOT.

Table 3.2:
Examples of Wrongful Trading Behavior Stipulated by ThaiBMA

Behavior	Description
Manipulation	
• Mark the Close	Executing a transaction imminent the system ending for the day to obtain a price at closing time.
• Price Manipulation	Making price to fluctuate from the market norm.
• Volume Manipulation	To intentionally build up a high volume, either to increase the market share or to lead the market to a misunderstanding that the bond is in great demand.
Wash Sales/Matching Order	The transactions of one bond in a certain period of time in which the seller and the buyer are the same person or belong to the same group, making identical selling and buying volume of that member during that period. The purpose is to manipulate the price and inflate the trading volume without actually taking a position in the market.


2. Market Convention

ThaiBMA acts in the standardization of ethics and code of conduct of the bond market and prescribes rules and regulations relative to the trading of bonds, plus setting standards for practice by members and other concerned parties trading in the bond market, for instance, the standardization of symbols for bonds and short-term debt securities, standardization of price and yield calculation of the various type of bonds and the standardization of bond registration.

3. The Role in Enforcement

ThaiBMA judges and investigates misconduct of members, by enforcing member adherence to the rules and regulations via various mechanisms, investigation process, and a penalty provision. In the event that members violate or infringe rules and regulations of ThaiBMA, the Board of Directors of ThaiBMA decides on the penalty ranging from a warning, probation, fine, and up to revocation of the membership, which will disqualify the dealer in the bond market trading.

The investigation process is carried out by the Disciplinary Sub-Committee and the accused can appeal through the Appeals Sub-Committee. The appointment of the Appeals Sub-Committee must be endorsed by the SEC. ThaiBMA must report the outcome of the investigation in all cases to the Office of the SEC.



4. The Role as a Bond Information Center and Pricing Agency

The ThaiBMA compiles and disseminates information of the bond market, primary and secondary, via its websites: www.thaibma.or.th and www.thaibond.com. The information comprises trading information, bond features, reference yield, and other relevant news. As a pricing agency, the ThaiBMA publicizes model yields and pricing data to investors, especially fund managers, for mark-to-market purpose. The objective is to determine a fair value of debt instruments of illiquidity.

5. The Role as Promoter of Market Development and Market Education

The ThaiBMA has developed tools and infrastructure to support trading of and investment in bond market such as yield curve, bond index, etc. It also initiates financial data innovation and continuously provides training programs and seminars to investors and the general public.

CHAPTER 4



INFRASTRUCTURE OF
THAI BOND MARKET



The government has actively developed the infrastructure of bond market following the enactment of the SEC Act in 1992 in order to facilitate the offering and trading of debt instruments and to boost confidence of investors. Major efforts include the establishment of credit rating agencies, improvement of trading system and clearing and settlement system, etc. The establishment of the Domestic Bond Market Development Committee further contributed to the restructuring of the market. Many organizations were set up to promote transparency, fairness and standard of good practice in the market. In particular, the ThaiBMA was established to serve as a bond pricing agency and bond information center.

4.1 Credit Rating Agency (CRA)

According to the SEC regulations, newly issued debentures must seek the credit rating from an authorized credit rating agency each time of issuance if such debentures are offered to the general public. However, this requirement is not applied to debentures issued for private placement. Presently there are 2 credit rating agencies authorized by the SEC in Thailand, namely, TRIS Rating Co., Limited and Fitch Ratings (Thailand) Limited

1. TRIS Rating Company Limited

TRIS Rating is the first credit rating agency established in 1993, one year after the promulgation of the SEC Act. The setting up of such an agency was a joint initiative of the MOF and the BOT, realizing that a credit rating agency is necessary for investors in evaluating the credit worthiness of debt instruments. A working group led by the Industrial Finance Corporation of Thailand (IFCT) was appointed to materialize the project. The establishment of Thai Ratings and Information Services Co., Limited (TRIS) was endorsed by the SEC and it stated operations on July 27, 1993.

TRIS is 18.5% owned by the government through the Ministry of Finance and the Government Savings Bank. The remaining shares are held by the private sector entities including the SET, commercial banks, securities companies and insurance companies. The Asian Development Bank (ADB) also



has a 5% stake in TRIS. Initially, TRIS obtained technical supports from Standard and Poor's, the world leading provider of credit rating services.

TRIS underwent a restructuring in 2002 by setting up TRIS Rating Co., Ltd as its wholly owned subsidiary to undertake the credit rating business, while TRIS shifted to concentrate on performance evaluation of government agencies and state enterprises.

Since inception, TRIS Rating has provided corporate rating and issue rating services to 82 clients, comprising state enterprises, financial institutions and other private companies. The number of issue rating totaled 160 issues.

2. Fitch Ratings (Thailand) Limited

Fitch Ratings (Thailand) was granted approval by the SEC to be the second credit agency of Thailand on February 20, 2001. Its rating coverage includes financial institutions, corporate, structured finance, bond funds, asset managers and services. Fitch Ratings (Thailand) is a joint venture between Fitch Ratings which holds 49% of total shares, and 5 local institutions including the Government Pension Fund (10.1%), Kasikorn Asset Management Co., Limited (10.0%), Thai Life Insurance Co., Limited (10.0%), Muang Thai Life Assurance Co., Limited (10%), and TISCO Asset Management Co., Limited (10.0%).

TRIS Rating & Fitch use different rating symbols for long-term and short-term debt instruments as follows:

Long-term Corporate Bond

TRIS Rating	Fitch	Rating Definition	
AAA	AAA(thai)	Highest Rating	Investment Grade Bonds
AA	AA(thai)	Very low degree of credit risk	
A	A(thai)	Low credit risk	
BBB	BBB(thai)	Moderate credit risk	
BB	BB(thai)	High credit risk	Speculative Grade Bonds
B	B(thai)	Very high credit risk	
C	CCC, CC, C(thai)	Highest credit risk	
D	DDD, DD, D(thai)	Default	

Short-term Corporate Bond

TRIS Rating:

Symbol	Definition
T1	Issuer has strong market position, wide margin of financial protection, appropriate liquidity and other measures of superior investor protection. Issuer designated with a “+” has a higher degree of these protections.
T2	Issuer has secure market position, sound financial fundamentals and satisfactory ability to repay short-term obligations.
T3	Issuer has acceptable capacity for meeting its short-term obligations.
T4	Issuer has weak capacity for meeting its short-term obligations.



FITCH:

Symbol	Definition
F1 (tha)	Strongest capacity for timely payment of financial commitments
F2 (tha)	Satisfactory capacity for timely payment of financial commitments
F3 (tha)	Adequate capacity for timely payment of financial commitments
B (tha)	Uncertain capacity for timely payment of financial commitments
C (tha)	Highly uncertain capacity for timely payment of financial commitments
D (tha)	Actual or imminent payment default

Almost all corporate debt instruments registered with the ThaiBMA are rated, which can be summarized as follows:

Table 4.1
Registered corporate debentures as of August 31, 2007

Company Rating	Outstanding Value (THB million)	Number of Registered Corporate Debentures
TRIS	355,379.1	176
Fitch	365,119.2	168
Moody	13,500.00	3
S&P	13,500.00	3

Table 4.2
Ratings of Registered corporate debentures
as of August 31, 2007

Rating	Outstanding Value (THB million)	Number of Registered Corporate Debentures
AAA	111,074.2	46
AA	214,841.8	62
A	252,346.4	95
BBB	49,635.3	17
BB	2,550.4	4

4.2 Trading System

In the past, debt securities were traded either over the counter between buyer and seller or through the SET. Although OTC trading commanded the majority of transactions, trading information was not available as there was no disclosure requirement. Trading of listed debt securities including state enterprise bonds and corporate debentures was inactive on the SET was limited. In the meantime, issuance of government bonds was not allowed for a long period due to budget surplus.

In 1994, the Bond Dealers Club (BDC) was set up to serve as a secondary market of debt securities trading and developed an electronic trading system called “BondNet” to facilitate the quote-driven trading of its members via the infrastructure of the SET.



BDC changed its status from a unit under the Association of Securities Companies to the Thai Bond Dealing Center (ThaiBDC) in 1998. During this period, trading via “BondNet” declined sharply due to the prevailing economic recession and ceased operations eventually. However, the crisis had resulted in massive issuance of government bonds and stimulated active transactions of government bonds in the secondary market. As the “BondNet” system was no longer in existence, all trading in the secondary market was of OTC nature. In an attempt to ensure a systematic compilation of bond trading information, the SEC stepped in to require bond dealers to report their daily trading data to the ThaiBDC, who will then verify the data before publicize them via ThaiBDC’s website.

As trading volume in the secondary market increased remarkably and an accommodating electronic trading system was demanded by concerned parties, the ThaiBDC developed an electronic trading platform (ETP) for OTC negotiated trading consisting of 2 systems, i.e., Inter Dealer Trading System and Multi-dealer System. The latter system enables the buyer to request quotations from various dealers before negotiating with the one who makes the best offer. This will effectively facilitate investors in determining the price. In addition to the ETP, transactions can also be done by dealers via telephone or via the voice box service of brokers.

In 2003, the SET started to launch debt instrument trading for retail investors via auto-matching system similar to that of equity instruments by setting up the Bond Electronic Exchange (BEX). However, the service had not been well responded as there were limited retail investors interesting in bond trading and most of them were buy and hold investors. Accordingly, the SET turned to develop another ETP for institutional investors based on OTC type trading.

In accordance with the policy of the Domestic Bond Market Development Committee in 2005 to centralize existing bond trading systems at the SET, the ThaiBDC terminated its role as a trading center and became an SRO and bond market information center. The ETP initially developed by the ThaiBMA was transferred to the SET for further development and has been in operations since 2006 under the name of “First”.



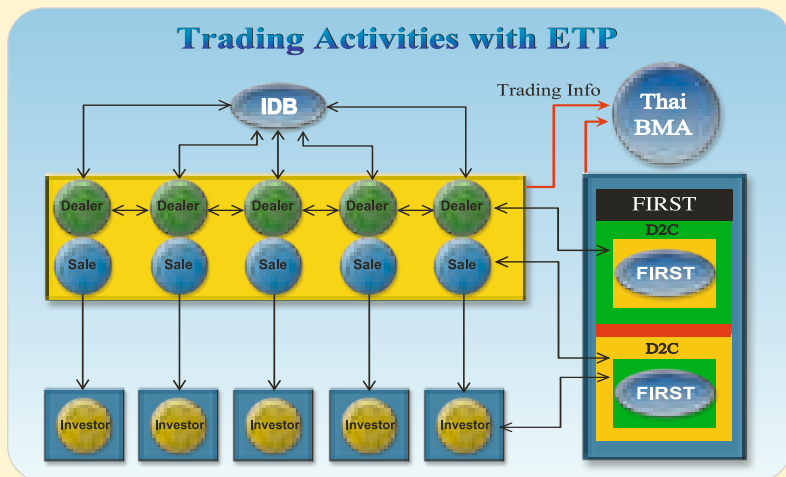
Since 2004, trading of debt securities on the BEX has remained insignificant. Trading value was less than 1% of total trading value. Although the number of listed securities jumped tremendously from 39 to 587 in August 2007, most of which are short-term government securities, the trading value did not increase correspondingly.

Table 4.3
Trading of Debt Securities on the BEX

	2004	2005	2006	2007 (Jan-Aug)
No. of listed securities	39	2	578	587
Outstanding value (THB million)	194,854	770,464	3,141,965	3531842
Trading volume (THB million)	643	335	256	230
Total secondary market trading (THB million)	2,969,469	3,884,753	6,955,197	10,678,616
Percentage of total trading	0.02%	0.01%	0.004%	0.002%

Sources: BEX, ThaiBMA

Figure 4.1
Trading Activities with ETP



4.3 Clearing and Settlement

In addition to the centralization of trading system, the Domestic Bond Market Development Steering Committee also stipulated the integration of depository, clearing and settlement system at the Thailand Securities Depository Co., Limited (TSD), a SET subsidiary. However, while TSD is responsible for the depository, clearing and settlement of scripless debt securities, transfer of funds is handled by the BAHTNET system of the BOT.

TSD acts as center for transfer and payment of debt securities through 2 channels, namely, **TSD Web Service** (Post Trade Integration: TPI) for Non-SWIFT members of TSD and **SWIFT Network** for SWIFT members.



Clearing and Settlement Procedures

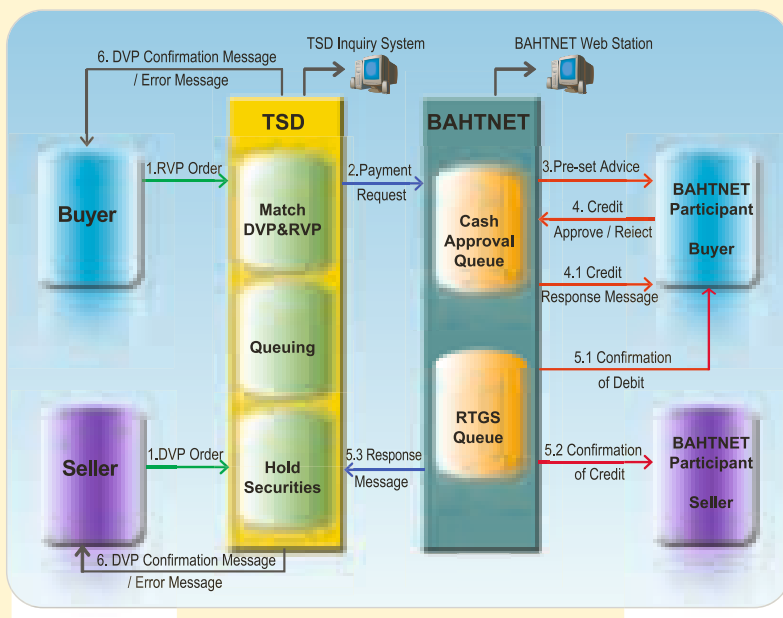
Debt securities clearing and settlement services provided by TSD meets the international standard according to Group of 30 (G30) Recommendations. The settlement and delivery date are to be on the second day after the trading date (T+2). Delivery versus Payment (DVP) and Receipt versus Payment (SVP) are implemented on a Real Time Gross Settlement (RTGS) basis.

Details of the procedures are as follows:

- Seller and buyer send information regarding delivery and receipt of securities together with payment for each transaction either via TSD Web Service or SWIFT Network
- TSD verifies the information before matching. If the securities balance of the seller in the depository system is sufficient, the system will proceed with TSD sending order to the BOT's BAHTNET system to transfer funds to the buyer's account. In case that the securities balance is not sufficient, the order will be held in the queue until end of the day.
- The BAHTNET system will go through the balance of the buyer to ensure that there is sufficient amount of funds for transferring. In case of problem, the BOT will inform TSD immediately.

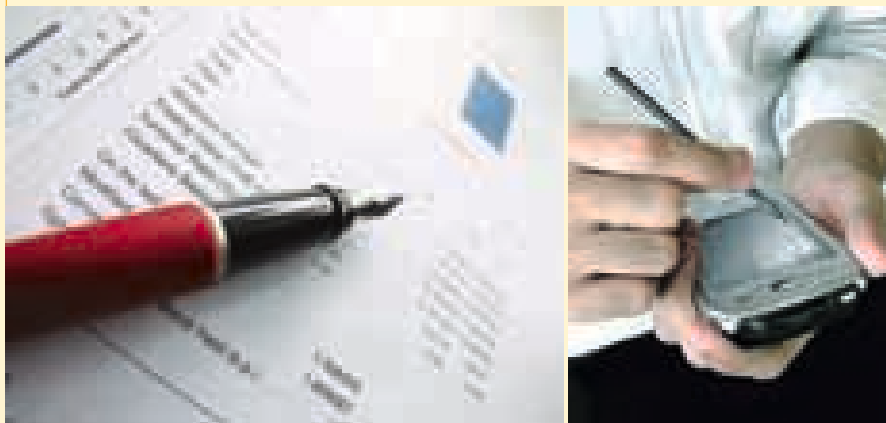
- If there is sufficient amount of funds, the BAHTNET system will transfer the funds from the buyer's account to the seller's account and inform TSD of the transaction accordingly.
- TSD sends confirmation to buyer and seller at the end of the day.

Figure 4.2
TSD Clearing and Settlement System for Debt Securities



Source: TSD

Note: BAHTNET = Payment system operated by the BOT
RTGS = Real Time Gross Settlement



4.4 Registrar

A registrar provides services to issuers and holders of securities in such areas as securities transfer, pledging, confiscation, change of particulars in the securities register, securities holder's book closing, dividends or interest payment to securities holders with names appear on the book at the book closing date.

According to SEC, entities who are eligible to be registrar are commercial banks, finance companies, securities companies, exchanges and financial institution established under special law. However, license from SEC is required in doing such business. Currently, there are 16 companies authorized to undertake the registrar business including the Bank of Thailand and Thailand Securities Depository Co., Ltd (TSD) as listed below:

Table 4.4
List of Registrars

Securities Companies	Other Institutions
1. BFIT Securities Public Company Limited	1. The Bank of Thailand
2. Kim Eng Securities (Thailand) Public Company Limited	2. Thailand Securities Depository Company Limited
3. KGI (Thailand) Securities Public Company Limited	3. Bangkok Bank Public Company Limited
4. MFC Asset Management Public Company Limited	4. Bank of Ayudhya Public Company Limited
5. Thanachart Securities Public Companies Limited	5. Bankthai Public Company Limited
6. TISCO Securities Public Company Limited	6. Kasikornbank Public Company Limited
	7. Siam Commercial Bank Public Company Limited
	8. Siam City Bank Public Company Limited
	9. TMB Bank Public Company Limited
	10. United Overseas Bank Public Company Limited



4.5 Custodian

A custodian is a bank or financial institution assigned by the mutual fund management companies or other type of clients to keep custody of their assets. In addition, the custodian also accept, deliver, check and verify the accuracy of assets, prepare the account of assets in its custody, as well as monitor and arrange to receive interests and benefits arising from investment in such assets and report to its clients. Any bank or financial institution wishing to undertake the custodian business in Thailand must seek approval from the SEC. Currently, there are 13 companies obtaining approval from SEC namely:

1. Bangkok Bank Public Company Limited
2. Bank of Ayudhya Public Company Limited
3. Bankthai Public Company Limited
4. Citibank, N.A.
5. Deutsche Bank, A.G.
6. Hong Kong and Shanghai Banking Corporation Limited
7. Kasikornbank Public Company Limited
8. Phillip Securities (Thailand) Public Company Limited
9. Siam City Bank Public Company Limited
10. Siam Commercial Bank Public Company Limited
11. Standard Chartered Bank (Thai) Public Company Limited
12. Tisco Bank Public Company Limited
13. TMB Bank Public Company Limited



4.6 Bondholders' Representative

The SEC has stipulated that a bondholders' representative is required for the issuance of some forms of debentures, i.e., the debentures offered to the general public and the secured debentures offered on a private placement basis. According to the SEC regulations, the bondholders' representative must be a financial institution with sound financial status and has no conflict of interest in performing the role of bondholders' representative. The major responsibilities of a bondholders' representative include monitoring the issuer to comply with the terms and conditions under the bonds, monitoring the interest and principal payment of the issuer, and holding the benefit of the security documents or any properties for the bondholders. Currently, there are 13 institutions obtaining SEC approval namely:



1. Bangkok Bank Public Company Limited
2. Bangkok First Investment & Trust Public Company Limited
3. Bank of Ayudhya Public Company Limited
4. Bankthai Public Company Limited
5. Citibank, N.A.
6. Deutsche Bank, A.G.
7. JP Morgan Chase Bank
8. Kasikornbank Public Company Limited
9. Siam City Bank Public Company Limited
10. Siam Commercial Bank Public Company Limited
11. Thai Military Bank Public Company Limited
12. Thanachart Bank Public Company Limited
13. The Hongkong and Shanghai Banking Corporation Limited

4.7 Bond Pricing Agency

Since July 2006, the ThaiBMA has been actively performing its vital role of Bond Pricing Agency, providing fair value pricing of bonds for mutual and provident funds management companies in calculating the net asset value (NAV) of their portfolio. At the same time, the ThaiBMA monitors daily the changes in the credit rating of bonds in order to adjust the pricing accordingly. The prices used for the valuation of bonds in the investment portfolio are called mark-to-market prices.

The major investors in the increasing number of bonds in Thailand are investment institutions, namely, mutual fund management companies, life insurance companies, plus other compulsory funds such as Government Pension Fund and Social Security Fund, etc. Bonds, especially those of the large number issued by the private sector, are hardly traded in the secondary market and consequently have relatively low liquidity comparing with other financial instruments such as equities. Prior to the assignment of the ThaiBMA as the Bond Pricing Agency, the official offering prices were only those handled through the ThaiBMA but not on a daily basis (with the exception of government bonds.) It was therefore difficult to determine the fair value of a bond that was not traded on a certain day. To overcome the problem then, mutual fund management companies utilized the guideline permissible by the Securities and Exchange Commission to obtain bidding prices from more than three dealers. Such practice resulted in different mark-to-market prices of the funds and provided no standard for comparison. To rectify the situation, the Office of the Securities and Exchange Commission (SEC) held meetings with the ThaiBMA, the Association of Investment Management Companies (AIMC) and the Custodian Club with an attempt to define appropriate approaches as well as to set forth guidelines for the determination of the fair value of bonds. The Securities and Exchange Commission assigned the ThaiBMA, being the information centre of bonds that possesses constantly available bidding prices, to act as Bond Pricing



Agency in July, 2006 after the meetings. This selection differs from the general practice in other Asian countries where the assignment usually lies with a private corporation. In some countries, South Korea for example, the credit rating company incorporates a subsidiary to act as the Bond Pricing Agency because it has to monitor the credit rating of the issuers of bonds consistently throughout their maturity period. The consensus definition and guidelines regarding the mark-to-market bond prices concluded at the meetings are as follows:

1. Executed Price – the price of a bond traded on a certain day;

2. Quoted Price – an average price arrived at from bidding prices obtained from more than three dealers, or a quoted firm price;

3. In the absence of executed price and quoted price, the model price determined by the yield and pricing calculation method of the ThaiBMA shall apply.

4. In case of a rated bond, the credit rating is taken into account in the calculation of yield apart from the type of bond and the time to maturity.

For the quoted prices received from dealers, statistical techniques such as min-max and standard deviation are also applied in order to exclude unusual quotations from being used in the calculation of quoted price average.

The model price determined by the ThaiBMA is in reference to the government zero-coupon yield curve calculated from the dealers' bidding prices of every trading day, plus the spread of bonds that is to be recalculated every seven days for government bonds and every fifteen days for private bonds. For bonds without a spread, that of a similar type of bond issued by the same sector and has the same rating shall be applied.

Commencing July 2, 2006, the ThaiBMA publishes daily mark-to-market prices on every trading day on the Mark-to-Market page in its iBond website in both html and spread-sheet formats for ease of use. In addition to the mark-to-market prices, other necessary and relevant information of each bond available on this web page includes accrued interest, latest quotation and trading, maturity date, time to maturity, duration and convexity. The information is exclusive for the ThaiBMA members only.



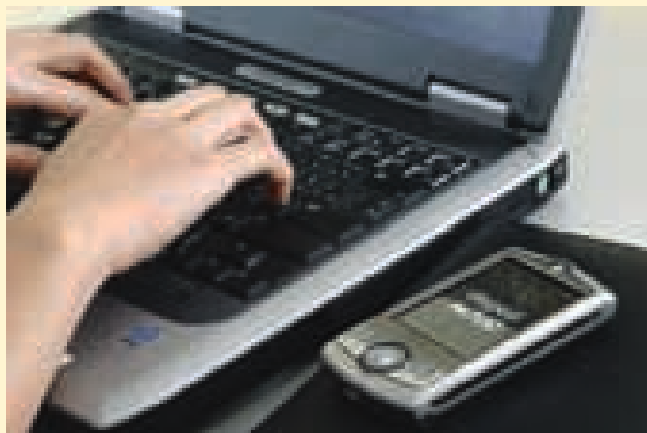


4.8 Bond Information Center

The ThaiBMA serves as the information centre assigned by the Securities and Exchange Commission in collecting and distributing data of the bond market. Therefore, the Securities of Exchange Commission stipulates that all licensed dealers must report transactions of each bond to the ThaiBMA within a specific timeframe to enable its follow-up and monitoring of the market situation.

Presently, the ThaiBMA categorized its operations in three functions below to facilitate analysis and follow-up of the bond market, and provide a fair and valid reference to the data.

1. Outright transaction: a one-shot transaction under no obligation agreed upon in advance, such as the sell-and-buy-back price, generally it refers to T+4 transactions that are handed over within 4 business days.
2. Financing transaction: under the sell-and-buy-back condition where the respective bond is treated as a guarantee.
3. Other transaction: any transaction other than the outright and financing transactions, such as transactions with prior agreements, transactions that are handed over after 4 business days, or transactions according to options or forward agreements, etc. In future, transactions of bond derivatives may possibly be categorized as a separate function.



Transaction reports submitted to the ThaiBMA are scrutinized by the Monitoring and Surveillance Commission in the correctness prior to compilation and summarization in the ThaiBMA Daily Report to be posted on its website and available to the general public and for the mark-to-market process of bonds.

The information available on the www.thaibma.or.th and www.thaibond.com web sites consists of basic data of bonds registered with the ThaiBMA, transactions and movements of bonds in the primary and secondary markets, including market references and news of the bond investment.

The basic data of bonds registered with the ThaiBMA are made up of information regarding the issuers of bonds,



symbols, types of the bond, maturity date, coupon rate, face value, cash flow and the outstanding value. This information or any further information is also available in the Prospectus of each bond which can be downloaded from the ThaiBMA website.

The ThaiBMA publicizes the information on bond transactions in the primary market in the format of bidding schedules and outcome of T-bills, government bonds, state enterprise bonds and state agency bonds. As for the transaction information in the secondary market, the ThaiBMA normally receives it within 30 minutes after a transaction for valuation and publishing as the daily closing price.

In addition, the ThaiBMA acts as the information centre of the Thai bond market in the bidding prices where dealers are able to post their prices, including prices of bonds not registered with the ThaiBMA, in its Market Quotation page. The quoted prices can be either indicative or firm quotes, which will be useful to the bond market as a whole.

C

CHAPTER 5



TAXATION

Incomes derived from investments in debentures, whether they are in outright trading or repo/sell and buy back, are classified in 3 categories as follows:

1. Interest Income
2. Capital Gain
3. Discount, or the difference between the redemption price and bid price in the case of debentures that yield no interest but are sold at below the redeemed value.

The tax liability of incomes from investments mentioned above is to be determined by the type of income, and the nature of the investor or income earner. Generally, payers withhold income tax upon payment at rates of 15% on natural persons, 1% on juristic persons and 10% on foundations or associations. Payments made to banking institutions, securities or other semi-banking institutions are liable to a 3.3% specific business tax. Additionally, transactions of debenture incur costs in duty stamps (as specified in the Rates of Duty Stamp List.)

Investments in debenture of mutual funds are exempt from income tax on the capital gains because mutual funds are juristic persons separate from fund management institutions. All benefits that mutual funds receive in interests, capital gains and discounts are exempt from tax computation. But the unit-holders of investment in mutual funds are liable to income tax applicable to natural or juristic persons, as the case may be, on dividends or profit sharing of the investment units in the same manner as tax liability of investment in equity instruments.

One exception is that investors who are natural persons are not entitled to tax credits when they declare dividends received from mutual funds in their income tax computation, which is contrary to investment in equity instruments.



Category of Income Tax Related to Investment in Debentures

Withholding Tax

Under the Revenue Code, juristic persons who make payments of assessable income must deduct and remit to government authorities the applicable tax on that amount in accordance with the type of income and nature of the inventor (please see details in the table summarizing taxes relative to investment in debentures.) Recipients who are natural persons have a right to whether or not declare that income in their annual tax return. But juristic persons must include it for tax computation regardless of whether withholding tax has been deducted.



Interests on debentures are paid out according to rates and at intervals as stated on the documents, i.e., every three months, six months, nine months and twelve months, etc. On some occasions, transactions of debentures are made between intervals of interest payment, holders of any bonds or debentures receive the full amount of interests on those documents. Such interests are assessable income from which withholding tax must be deducted under Article 50 (2) of the Revenue Code. But the amount of interest may include benefits from the transaction of the bonds or debentures that are liable to a different category of income tax. To avoid double taxation and injustice to the unit-holders of bonds or debentures who receive only a portion of the amount in actual interest but pay



tax on the whole sum, it is therefore stipulated that the portion of interest earned prior to the income earner becoming holder of those bills or debentures need not declare such income for tax computation. (Ministerial Regulation No. 231)

Specific Business Tax

Specific business tax is collected from natural persons, groups of persons who are not juristic persons and any other juristic persons, on incomes derived from engaging in businesses of banking, finance and securities, credit foncier, life insurance, pawn brokerage, semi-commercial banking and real estate.

Banking, financial and securities institutions pay specific business tax on income of interests, discounts, fees, service fees, and gross profits-before-expenses from transactions of any bills or debentures, foreign exchange, drafts or overseas remittance. The specific business tax on incomes relative to bonds or debentures is levied at 3.3%, to be remitted to government authorities.

Duty Stamps

Duty stamps are an alternative tax collection where tax payers such as renters, transferors, lenders and insurers, etc., must pay tax by affixing duty stamps on documents or bonds and debentures as required by law. The collection of tax via duty stamps takes place on services and legal protection of rights and benefits provided by government authorities, for



example, letters of authorization, or loan agreements are valid evidence in civil court cases only when they are properly and fully affixed with duty stamps on the documents. The rates of duty stamps relative to bonds or debentures are summarized as follows:

1. In issuing debt instruments by juristic persons, associations, groups of persons, or any other institutions, the issuers must affix duty stamps of THB 5 on each set of document, while issuers of government bonds offered in Thailand must affix duty stamps of THB 1 for every THB 100, or the fragment thereof. Debt instruments issued by co-operatives are exempt from affixing duty stamps.

2. Transferors of debt instruments must affix duty stamps of one Baht for every one thousand Baht, or the fragment thereof, for the transfer, while transfers of government bonds and debt instruments issued by co-operatives and Bank for Agriculture and Agricultural Co-operatives are exempt from affixing duty stamps.

Double Taxation Agreement

Double Taxation Agreements are treaties signed by Thailand and various other countries which specify tax exemption on incomes derive from investments, whereby investors are only liable to income tax in one country to induce foreign investment. (As at August, 2007 there are 52 bilateral agreements.)

The Double Taxation Agreement applies to persons who are residents of the Contracting States and applies to direct taxes, viz., personal income tax and corporate income tax and petroleum income tax. Other indirect taxes such as value added tax, specific business tax, excise tax, etc., are not covered by the Double Taxation Agreement. The Double Taxation Agreement also prescribes a ceiling rate for tax collection which the source country must not exceed.





Table 5.1
Income Tax Related to Investment in Debt Securities

Nature of Investor	Type of Income		
	Interest	Discount/Difference between redeemed value and initial selling price	Profit or benefit from transaction
1. Resident Investors			
1.1 Natural Persons	- Withholding tax at 15% with right to declare in annual tax return or not.	- Withholding tax at 15% for initial unit holders, with a right to declare in annual tax return or not.	- Withholding tax at 15%, except bonds and debentures that pay no interest, with a right to declare in annual tax return or not.
1.2 Juristic Persons ^{1/}	<ul style="list-style-type: none"> - Withholding tax at 1% * - Withholding tax at 10% for foundations and associations - Tax exemption for mutual funds - Add back for annual income tax computation. 	<ul style="list-style-type: none"> - Withholding tax at 1% ** - Withholding tax at 10% for foundations and associations - Tax exemption for mutual funds - Add back for annual income tax computation. 	<ul style="list-style-type: none"> - No withholding tax. - Tax exemption for mutual funds - Add back for annual income tax computation.

Nature of Investor	Type of Income		
	Interest	Discount/Difference between redeemed value and initial selling price	Profit or benefit from transaction
2. Non-Resident Investors 1.1 Natural Persons ^{2/}	<ul style="list-style-type: none"> - Withholding tax at 15%. - Except interests on bonds and debentures issued by government organizations, commercial and industrial institutions 	<ul style="list-style-type: none"> - Withholding tax at 15% for initial unit holders. - Except discounts/ differences between redeemed value and initial selling price of bonds and debentures issued by government organizations, commercial and industrial institutions 	<ul style="list-style-type: none"> - Withholding tax at 15%, - Except discounts/ differences between redeemed value and initial selling price of bonds and debentures issued by government organizations, commercial and industrial institutions
1.2 Juristic Persons ^{3/}	<ul style="list-style-type: none"> - Withholding tax at 1% - Except interests on bonds and debentures issued by government organizations. 	<ul style="list-style-type: none"> - Withholding tax at 1% - Except discounts/ differences between redeemed value and initial selling price of bonds and debentures issued by government organizations, commercial and industrial institutions 	<ul style="list-style-type: none"> - Withholding tax at 15%, - Except discounts/ differences between redeemed value and initial selling price of bonds and debentures issued by government organizations, commercial and industrial institutions

Source: Compiled by the ThaiBMA

Notes: * Banks or companies under the Act on the Undertaking of Finance Business, Securities Business and Credit Foncier Business are liable to withholding tax at 1% on interest income derive from bonds and debentures issued by juristic companies or partnership operating business in Thailand.

** Excluding banks or companies under the Act on the Undertaking of Finance Business, Securities Business and Credit Foncier Business.

^{1/} Financial institutions are liable to special business tax at 3.3% on interest income.

^{2/} Amended by Ministerial Regulation No. 249 (B.E. 2548) governing the exemption from income tax and Royal Decree No. 429 (B.E. 2548)

^{3/} To refer to respective Double Taxation Agreements for the rate stipulated.

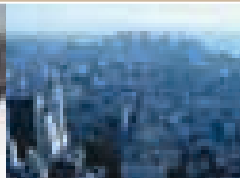


Tax Related to Repo Transaction

In order for the tax liability of repo transaction to be in line with its true description and objectives of financial borrowing business, the Revenue Department therefore waive the specific business tax and duty stamps on the portion that does not reflect the true description of its business operations on the condition that repo transactions must be carried out in accordance with the method and conditions stipulated by the Revenue Department which are summarized as follows:

1. They must be transactions of securities with repurchase agreement executed under the regulations of the Stock Exchange Commission granting securities institutions, or the Bank of Thailand granting financial institutions under their supervision to do so.
2. The Repurchase Agreement must be a written document properly executed and recognized by the Stock Exchange Commission.
3. There must be stipulations that, the seller of securities agrees to buy back, upon due date, securities in the same category of the same volume at the equivalent value calculated by a prior agreed upon method of calculation. The period from the date of selling the securities to the date of repo must not exceed one year.

CHAPTER 6



INTERNATIONALIZATION OF
THE THAI BOND MARKET



Since the establishment of the SET in 1974, endeavors have been made to lure foreign investment. A number of legislations were amended to facilitate foreign participation in the Thai capital market, resulting in remarkably increase of capital inflows for portfolio investment over time. However, due to supply limitation and immature market infrastructure, be it related to the trading system, transfer of securities, settlement, or investors' protection regulations, the debt market was not so attractive to foreign investors as the equity market.

The period from late 1980's to early 1990's saw a number of favorable factors supporting the internationalization of the Thai bond market. Many Asian economies including Thailand enjoyed impressively high growth, attracting foreign investors to turn to Asian credits. The promulgation of the

SEC Act in 1992 together with various efforts to develop the domestic bond market also gave a boon to local currency bonds. This resulted in an active Thai bond market as well as a buoyant foreign currency market due to rising demand for the Baht currency. Rapid movement of capital flows, however, also created threats to the economy. Although the 1997 financial crisis was not directly caused by this factor, one cannot deny the fact that the hot money fluctuations exacerbated the economic difficulties. Following the crisis, significant efforts have been undertaken to strengthen the foundation of the economy and to ensure a balance between the real and financial sectors.

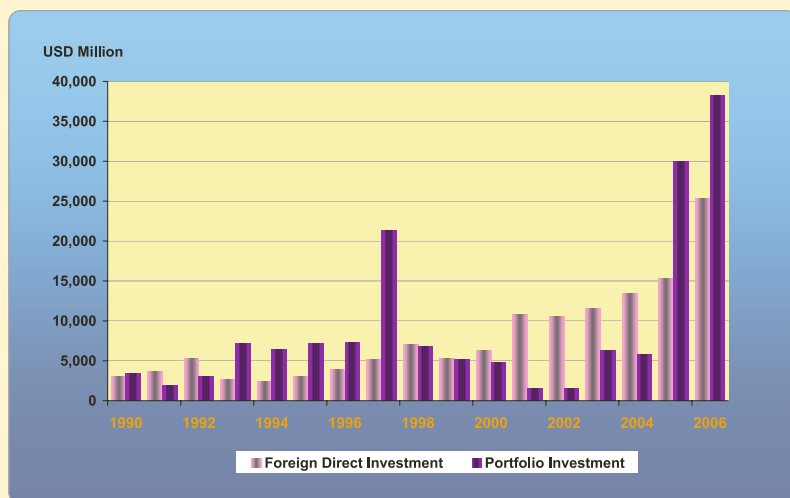
6.1 Foreign Capital Flows

Prior to 1987, inflows of portfolio investment were trivial, amounting to less than US\$ 200 million each year. Since 1987, however, such amount of inflows increased significantly, reaching nearly US\$ 1 billions per year and even surpassing the inflows of foreign direct investment.

The movement of portfolio investment was also much more volatile than that of foreign direct investment. During 1990-1997, portfolio investment inflows and outflows accounted for 66% and 80% of the country total capital inflows and outflow, respectively. In the aftermath of the crisis, the portion of portfolio investment inflows dropped sharply while on the other hand foreign direct investment inflows moved higher.

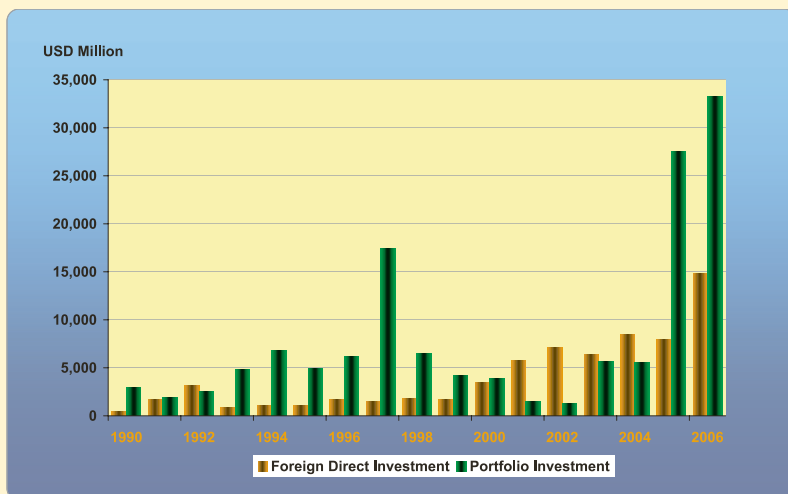
Foreign capital returned to the Thai equity and debt markets again following the economic rebound and registered a dramatic growth in 2005-2006, rising almost 5 times from US\$ 5,816 million in 2004 to US\$ 29,923 million in 2005 and US\$ 38,263 million in 2006. The influx of foreign capital pushed up the value of the Baht currency which in turn affected the real sector significantly. Realizing that one of the objectives of portfolio investment inflows was to reap profits from foreign exchange speculation other than normal investment returns, the BOT stepped in to control the capital movement through a number of measures. Such measures have inevitably exerted negative impact on the Thai bond market.

Figure 6.1
Thailand's Capital Inflows
(1990-2006)



Source: Bank of Thailand

Figure 6.2
Thailand's Capital Outflows
(1990-2006)



Source: Bank of Thailand

6.2 Foreign Investment in Thai Bond Market

In 1989, Thailand was assigned a sovereign credit rating of A - and A2 from Standard & Poor's and Moody's Investors Service, respectively. The Thai government then issued the first tranche of Yankee Bonds worth US\$ 200 million and established a US\$ 300 million Euro Commercial Paper Program to attract foreign investors especially institutional investors. Thailand's economic growth during that period was impressively high. The country was geared towards a clear direction of capital



market development, evident by the promulgation of the Securities and Exchange Act in 1992. All these factors encouraged foreign investors to invest in the domestic bond market. However, the supply of domestic bonds was limited since there was no issuance of government bonds. As a result, investment by foreign investors confined to only short-term issues such as commercial bank papers and the IFCT debentures which had diversified terms of maturity from short-term to long-term. In 1993, IFCT initiated the issuance of a new instrument exclusively designed for foreign investors called Asian Currency Note Program (ACN). ACN had a similar feature to Euro-Medium Term Note (EMTN) but were denominated in Asian currency. The purpose was to accommodate the demand of foreign investors who were interested in Asian credit but had been deterred by concerns over the respective governing laws and related rules and regulations of the local markets from investing in corporate debt instruments in the emerging markets. IFCT adopted the British law and EMTN issuance process in designing its ACN program including the preparation of Information Memorandum, Program Agreement and related documents, form of notes, methods of transfer and settlement, etc. Citibank was appointed as fiscal and paying agent. During the period of 4-5 years following the initial issuance of the THB 5,000 billion ACNs, IFCT had successfully launched billions Baht of ACNs which were well received among foreign investors. A secondary market for the Baht-denominated bonds had also been created accordingly.

The favorable situation, however, changed during the 1997 financial crisis. Most investors disposed of their Thai assets, inducing to a sharp fall in the prices of Thai issuer's debt instruments, be it Yankee Bond issued by the Thai government or domestic bonds held by foreign investors. This created an investment opportunity for those with cash surplus, i.e., bond buy-back by the Thai issuers of qualified Thai investors at a deep discounted price or investment in Credit-Linked Note (CLN) or Bond Options issued offshore having Thai Bond as reference asset which offer a high yield to investors.

Foreign investors returned to the Baht-denominated bonds as the economy recovered from the crisis. According to a survey undertaken by the BOT in 2005 regarding securities holdings by foreign investors, foreign investment in Thai securities increased impressively from THB 1,018 billion in 2003 to THB 1,551.5 billion in 2005, an increase of 52%. Although the share of investment in debt securities remained low, i.e., about 4-6% of total foreign investment in Thai securities, the value surged from THB 42.2 billion in 2003 to THB 98.1 in 2005, an increase of 132.5%.



Table 6.1
Non-Resident Investment in Thai Securities
(2003-2005)

(THB Billion)

	2003	2004	2005
Equity	958.4	1,105.7	1,440.6
Debt	42.2	48.2	98.1
Financial Derivatives	17.7	9.7	12.8
Total	1,018.3	1,161.6	1,551.5

Source: Economic Survey Team, BOT

The majority of investment in debt securities (68%) was in government securities and another 24% in state enterprise bonds, whereas corporate debentures accounted for only 8%. The business sector that received the highest investment funds was the industrial sector (38%), followed by the financial institution sector (21%).

Table 6.2
Non-Resident Investment in Thai Debt Securities
by Business Sector
(2003-2005)

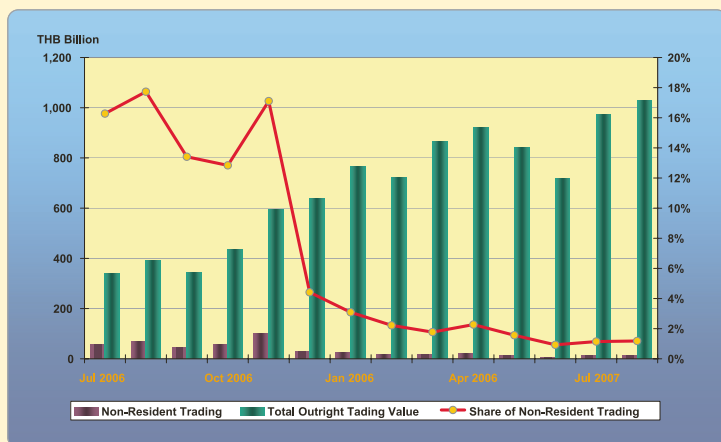
(THB Million)

	2002	2003	2004	2005
Financial institutions	2,645	742	147	1,121
Trading	1,224	1,419	469	438
Construction	100	-	-	-
Industry	83	2,193	1,488	1,649
Services	44	468	351	261
Investment	-	3	3	64
Property	-	1	409	-
Government	15,539	1,047	27,725	66,864
State enterprise	66	56	7,389	25,899
Others	20,565	16,288	10,179	1,785
Total	40,267	42,217	48,160	98,082

Source: Economic Survey Team, BOT

Domestic bond trading by foreign investors continued to exhibit a rising trend in 2006. The value of outright trading by foreign investors rose from THB 55 billion (or 16.3% of total trading value) in July 2006 to THB 102 billion (or 17.1% of total trading) in November 2006. However, soon after the introduction of short-term capital control measures by the BOT on December 18, 2006, the non-resident outright trading value in December dropped sharply to THB 28.26 billion, equivalent to only 4.4% of total trading. Despite some relaxations of the control measures, the sentiment did not much improve. Foreign trading remained low with a monthly average of approximately THB 15 billion during the first 8 months of 2007, representing only 1-3% of total trading.

Figure 6.3
Outright Trading of Domestic Bonds by Foreign Investors
(July 2006 – August 2007)



Source: ThaiBMA

The short-term capital control measures imposed by the BOT in late 2006 are aimed at stemming the Baht speculation. Funds brought into the country by foreign investors and exchanged against the Baht are subject to an unremunerated reserve requirement (URR) of 30% if they had remained in the country for less than 1 year, except those related to payment of goods and services and investment in the SET. The measures are expected to deter foreign investors from bringing in funds for short-term investment before remitting them out when the Baht becomes stronger and hence reaping profits from both interest rate and foreign exchange rate. However, the continuous Baht appreciation has adversely hurt the export sector. Imminently after the imposition of the measures, foreign investment in the debt and equity market fell sharply amid massive pressures from parties concerned for a review of the policy. Although still in existence, the measures have now been relaxed for fully-hedged transactions.

6.3 Baht-Denominated Bonds Issued by Foreign Issuers

In 2004, the Ministry of Finance announced permission for foreign institutions to issue Baht-denominated bonds for trading in Thailand. This is the initial opening of the domestic capital market to foreign bond issuers, similar to the Yankee Bond market in the U.S.A., the Samurai Bond in Japan, or the Arirang Bond in South Korea, etc., with restrictions on certain institutions below:



- International financial institutions incorporated under treaties, regardless whether or not Thailand is a member of those treaties;
- Foreign governments, or foreign government institutions incorporated under specific laws;
- Juristic persons incorporated under foreign laws,

who are not entitled to the common permission but must apply for it on a case by case basis and are prohibited from remitting Thai Baht out of the country. Overseas remittance is possible only after foreign exchange. The issuance of bonds in this connection must come under commitments with and permission of the Ministry of Finance. Issuers must complete the offering of bonds within six months after permission granted by the Ministry of Finance.

Limited companies and public companies incorporated under foreign laws are allowed to issue bonds under the assumption of permission of the Securities and Exchange Commission. However, issuers must submit a draft of the treaty conditions, including the information sheet and prospectus, except in the case of small offerings of not more 100 million Baht, or offerings made to not more than 10 investors, with recorded transfer restriction.



The first institution who issued Baht bond in Thailand was the Asian Development Bank (ADB) on May 24, 2005, in the value of THB 4,000 million, with 5-year maturity period and 3.87% annual interest. The Japan Bank for International Cooperation (JBIC) followed on September 1, 2005, in the value of THB 3,000 million, with 5-year maturity period and 4.78% annual interest. As of the end of August 2007 there were 9 offerings of Baht-denominated bonds, totaling THB 23,500 million.



6.4 Asian Bond Funds

Following the 1997 economy crisis in Asia, many countries realized the necessity of developing better cooperation in the region. During the crisis, many countries experienced liquidity crunch and had to rely on assistance of developed nations in other regions, despite the fact that the volume of financial reserves in Asia was high. Therefore, ideas emerged of developing the bond markets in Asia to promote financial investment in the region, in which Thailand proposed the Asian Bond Market Initiatives. Later, at the Executives Meeting of East Asia-Pacific Central Banks (EMEAP), its member countries of Australia, China, Hong Kong, Indonesia,

Japan, Korea, Malaysia, New Zealand, Singapore, the Philippines and Thailand set up the Asian Bond Fund I on June 2, 2003 in the value of US\$ 1 billion with an objective to invest in U.S. Dollar-denominated government and semi-government bonds of member countries, except Japan, New Zealand and Australia. The Bank for International Settlements (BIS) was assigned the responsibilities of the fund management. The participation of Thailand in Asian Bond Fund I was US\$ 120 million.

One of the purposes of setting up the Asian Bond Fund I was to attract Asian regional investors who originally invested in European or U.S. markets to return to the Asia bond markets with Asian Bond Fund I as the lead investor. Another purpose was to develop the prospects of demand and supply of bond markets in the Asian region by eliminating restrictions in the issuance of international bonds in the region and measures in the taxation and accounting system.

During 2005, the Executives Meeting of East Asia-Pacific Central Banks set up Asian Bond Fund II as continuation of the Asian bond markets development. The fund was to invest in local currency-denominated government and semi-government bonds as compared to the U.S. Dollar-denominated investment of Asian Bond Fund I. The size of Asian Bond Fund II was US\$ 2 billion divided into two components; one was Pan-Asian Bond Index Fund (PAIF) of US\$ 1 billion and the other, Fund of Bond Funds (FoBF) of US\$ 1 billion. The



Pan-Asian Bond Index Fund was to invest in local currency-denominated government and semi-government bonds, while Fund of Bond Funds was to invest in 8 small funds of each member country who in turn were to invest in local currency-denominated government and semi-government bonds. The Asian Bond Fund II is under the management of a private company.

The setting up of Asian Bond Funds took a significant role in accelerating the reform of taxation and regulations, both in the region and in the individual countries. to facilitate international investment. For example, the Pan-Asian Bond Index Fund was the first fund permitted to invest in the inter-bank bond market in China. In Thailand, the Ministry of Finance announced exemption of withholding tax on interest income and the excess of profits of foreign investors derives from investment in government and semi-government bonds, effective from January 7, 2005 in support of foreign investment in the Thai bond market.

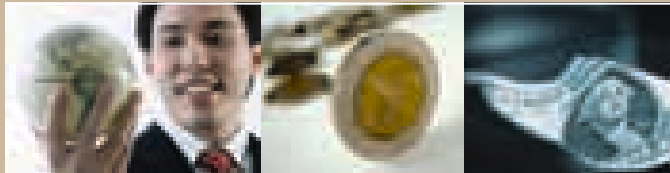
The cooperation of countries in Asia in the development of Asian bond markets carries on as the Asian Bond Market Initiative Working Groups continue to convene and coordinate cooperation in many aspects, especially settlement standards and reducing transaction cost on cross border trading. In the meantime, there has been co-operation among various exchanges in the region to facilitate joint trading. In 2006,



Malaysia also allowed foreign currency bonds to be issued on the domestic market and allowed foreign governments, agencies, and multilateral development institutions to issue bonds on the domestic market for the first time.

C

CHAPTER 7



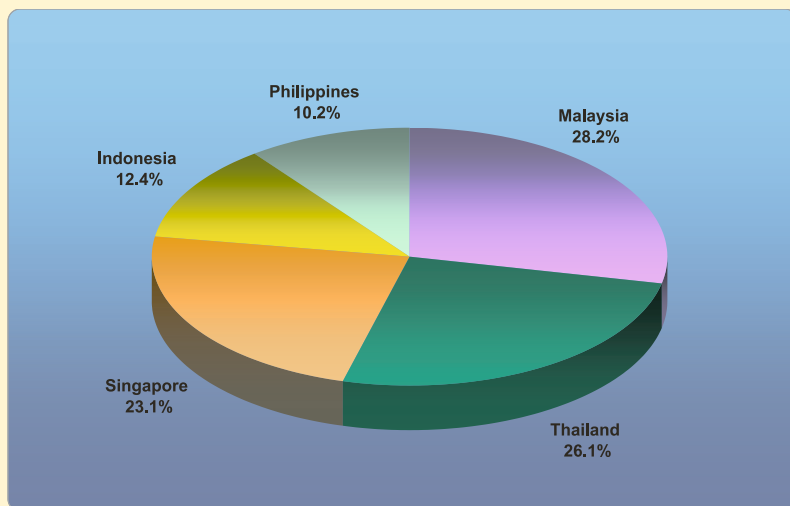
PROSPECTS AND FUTURE
CHALLENGES



7.1 Thai Bond Market vs. Global Bond Markets

The Thai bond market has been growing consistently over the past ten years, with the outstanding value of local currency bonds jumping seven times from THB 546.8 billion in 1997 to THB 4,085.2 billion in 2006, equivalent to an average of 24% increase per annum. However, the Thai bond market is still insignificant comparing to other countries in terms of market size and share to GDP. When comparing among five neighboring countries, namely, Malaysia, Singapore, Indonesia, the Philippines, and Thailand, Malaysia holds the highest outstanding value of its domestic bonds, with US\$121.26 million at the end of 2006 and equivalent to over 82.5% of its GDP in the same year, while Thailand follows as the second with an outstanding value of US\$112.01 million, representing approximately 52.3% of GDP.

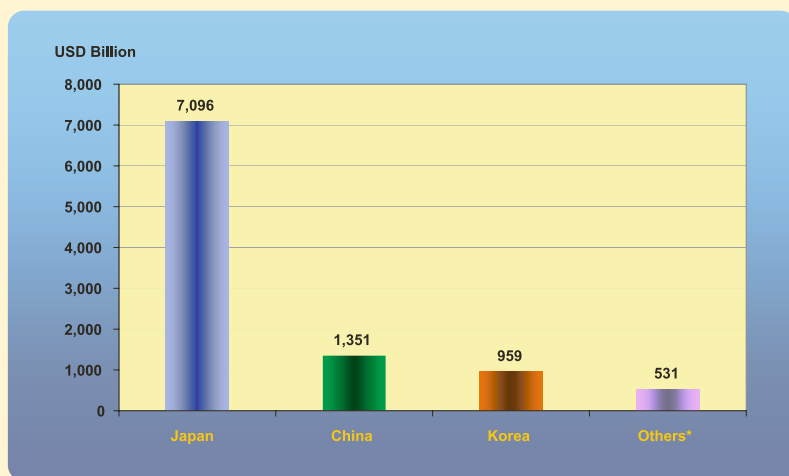
Figure 7.1
Outstanding of Domestic Bonds in Thailand and Neighboring
Countries: 2006



Source: ADB, Asia Bond Monitor 2007

In comparison with countries in Asia in the year 2006, Japan has the largest domestic bond market, i.e., US\$7,096.1 billion, China is the second with US\$1,350.6 billion and South Korea comes third with an outstanding value of US\$958.97 billion.

Figure 7.2
Outstanding of Domestic Bonds in Asian Countries: 2006

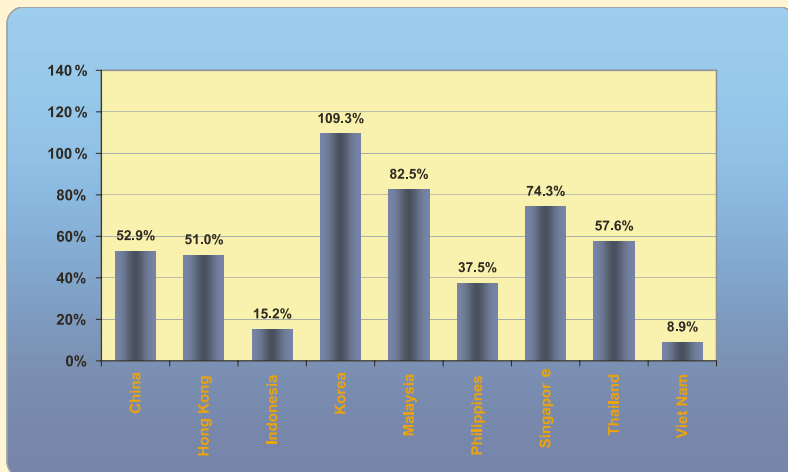


Source: ADB, Asia Bond Monitor 2007

Note: Others comprising Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Thailand and Viet Nam.

A comparison between the domestic bond market and GDP of the various countries in Asia shows that the Thai domestic bond market has a ratio lower than that of many other countries. South Korea is top of the list with a larger bond market than its GDP, or an equivalence of 109%, Malaysia is the second with approximately 82% and Singapore the third with approximately 74%, whereas Thailand and China share a similar ratio of market against GDP of approximately 50%.

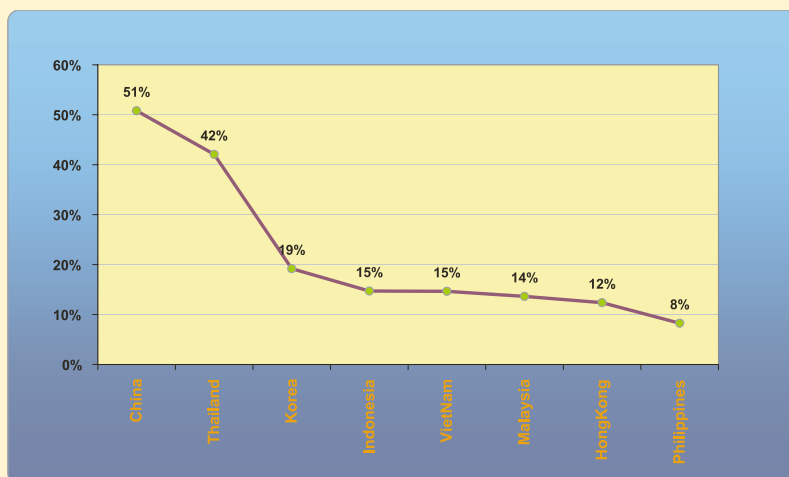
Figure 7.3
Share of Domestic Bond Markets to GDP of Asian Countries: 2006



Source: ADB, Asia Bond Monitor 2007

One similarity of the bond markets in countries in Asia is that the vast majority of the market consists of government bonds. Even in the market of a developed country like Japan, the proportion of government bonds is as high as 90%. Asian emerging markets such as China, Indonesia, the Philippines, Vietnam and Thailand have proportions of over 70% in government bonds, while the proportion of government bonds of South Korea is close to that of Singapore. When comparing growth rates of the domestic bond markets in 2006, Thailand and China grow much more significantly than other countries in the region with 42% and 51% respectively over 2005.

Figure 7.4
Growth Rates of Emerging East Asian Domestic Bond Markets
(2005-2006)



Source: ADB, Asia Bond Monitor 2007

7.2 Impediments to the Thai Bond Market

1. Limitation of the Investor Base

Corporate investors are few. Therefore, transactions are within the cluster of a small number of major investors. Offers of large issue size are rare, while investments of foreigners represent only 2%. Recently, the setting up of bond mutual funds is on the increase, which is a good sign of the investor base expansion as many minor saving depositors of

banks start to look for alternative investment channels that offer better return. Funds that invest in government bonds are highly secure and not liable to tax, whereas interests earned from bank deposits are taxable, resulting in higher net return on mutual funds than commercial bank deposits of an equal amount in the same period of time. In addition, government authorities have extended personal income tax deduction benefits on investments in Long Term Equity Fund (LTF) and Retirement Mutual Fund (RMF) to encourage investments in the bond market.

At the same time, retail investors lack a good knowledge or understanding of and have little faith in the bond market. They are more content with commercial bank deposits than other kinds of investment. At present, as the government provides unlimited guarantee on deposits at commercial banks, many depositors choose to accept a lower return for the security of their deposits. However, the government has already endorsed the setting up of a Deposit Insurance Agency (DIA), which is expected to be operational in the not too distant future. As a consequence; there should be a shift of deposits away from small banks and some of them should flow into the bond market.



2. Few Bond Issuances by the Private Sector

Currently, there are just over one hundred private enterprises who issue bonds. These are comparatively few, in view of the total of 521 companies listed on the SET, and represent only one-fifth of the listed companies at the end of 2006. The proportion of corporate bonds is only 23% of the total bond market which narrow the variety of choices. One other reason is that commercial banks try to offer loans at low interest rates and under attractive conditions to maintain their corporate customers of good credit standing. Therefore, these companies do not see the benefit of bond issuance in reducing costs.

3. The Lack of Equilibrium in the Government and Corporate Bonds

The public sector bonds of as high as 79% of the total market indicate that the Thai Bond Market has to rely on the government, which may be at risk when there are changes in policies. For example, prior to the 1997 economy crisis, the government had not issued any debt instruments for more than a decade. Gladly, the government has now envisaged the importance of the bond market and implemented measures to develop the market to grow in the appropriate direction.

4. The Lack of Equilibrium in the Structure of Bond Maturity

At the end of August, 2007, more than 70% of the total outstanding of the bond market have a maturity of less than 5 years while only 9% are matured in over 10 years. Looking at corporate bonds alone, only 3% that are matured in over 10 years. Apparently, Thai bond investors are not interested in long term investment for many reasons, viz., non-trustworthiness in the issuers' credit standing, thus taking only short-term risks; no market risk hedging tools; plus other technical limitations that prevent a certain group of potential long-term investors from becoming such. Instead, they are deterred in long term investment as their investment portfolios have to be marked to market to reflect the fair value.

5. No Variety in the Range of Bonds

The majority of bonds yield a fixed interest rate. Structured bonds only take up a small proportion which is hardly considered an alternative for investors seeking additional return.





6. Few Bond Dealers

There are only a few security companies who are interested in the transaction of bond market. Even commercial banks that are active in the bond market are not many. The rest of them still concentrate in carrying on the traditional business of deposits and loans. The Thai bond market is therefore much in clusters, i.e., 50% of the transactions are in the hands of the Top Five Dealers, 80% in the Top Ten, and 98% in the Top Twenty. For this reason, there are very few dealers engaged in the bond market transactions, hence, the depository, clearing and settlement, and payment costs of transaction are high.

7. Not Much Development of the Thai Financial Market

Since the development of the money market has been lagging, the dealers lack sources of short-term funds for bond transactions. Many security companies with low capital are unable to borrow from the Inter-Bank Market. The development of the Repurchase Agreement Market has also been slow. Financial risk hedging tools such as Swaps and Forwards are scarcely available and costly. The formal transactions of financial derivatives in the market are made through the Stock 50 Index only (excluding AFET which engages in agricultural futures trading), as there are no Money Market Index and Bond Futures/Options available. Even though short sale is permissible,

practically, it is complicated and costly in the transaction. As a result, the short sale and security borrowing and lending are not in favour.

8. The Government Policy to Control Short-term Capital

In 2006, the Bank of Thailand introduced measures on commercial banks to hold a 30% reserve on all foreign funds for short-term investment of less than one year, except in cases of full hedging of the total amount and the total holding period. These measures affect foreign investments both in bonds and equity instruments.

In conclusion, the Thai Bond Market is small and without depth and breadth. It has no variety of financial products to attract investors. The market liquidity is non-existing especially in the private sector because of the small number of issuers and investors.

The market development requires efforts and cooperation of all concerned both from the government and private sector in order to progress.



7.3 Recent Developments

The Thai bond market development policy is presently rest with the Domestic Bond Market Development Committee chaired by the Minister of Finance. So far, the Committee has implemented several bond market development schemes to increase the demand and supply and improve the infrastructure as follows:

1. Mandate for the Thailand Securities Depository Co., Limited, a subsidiary of the SET to handle all clearing and settlement of bonds, in lieu of the previous practice in which the authority over government and state enterprise bonds was with the Bank of Thailand.

2. Mandate for all electronic transactions of bonds to centralize at the SET, instead of being both at the SET and Thai BDC (presently ThaiBMA) as in the past. However, after the implementation, the volume of transactions remains small and many of which are telephoned transactions outside the market with data put through the system of the SET only.

3. Mandate for ThaiBMA to be the SRO of the bond market and acts as the information centre of both the primary and secondary markets with responsibilities in the Bond Pricing Agency to supply pricing information to all mutual fund management companies to enable their calculation of NAV of fixed income mutual funds.

4. Enhancing the liquidity of the bond market by initiating the Bank of Thailand Bonds in 2003. Up to now, the outstanding value of the BOT Bonds stands at over THB 1 trillion. Furthermore, another bond with floating interest rate was issued in early 2007 in order to assist the development of a new reference interest rate in the market, i.e., BIBOR.


5. Improving the system of Primary Dealer which is a business counter-part of the Bank of Thailand to become a consistent active market maker by specifying the necessary trading volume to be maintained and two-way prices to be quoted.

6. Expanding the Bond Issuer Base by permitting foreign institutions to issue foreign bonds for subscription in Thailand, the balance of which stood at THB 20,500 million at the end of May 2007.

Directions for the Future Development of Thai Bond Market

Additional development schemes for the bond market have been under the consideration of the Domestic Bond Market Committee. Some of them have advanced to the stage of being promulgated to take effect as laws while others are being studied in more details. They are summarized as follows:

1. Amendment of law to empower the Ministry of Finance to regularly issue bonds. The prevailing law restricts its issuance of bonds if there is a surplus of government budget.



For example, prior to the economy crisis in 1997, no debt instruments had been issued by the government for more than a decade because of the persistent budget surplus over that period. Thus, the volume of government bonds circulating in the market reduced which affected the transaction volume, the development of benchmark bonds and the various derivatives using government bonds as underlying. The Ministry of Finance has been aware of the problem and is trying to rectify the situation which is expected to take place in 2007. Furthermore, there will be an amendment of the Royal Decree to empower the Ministry of Finance to issue bonds for subscription by the state enterprises instead of providing guarantee on the bonds they issue. This would also be a way to increase the supply of government bonds.

2. Increase of Benchmark Bonds in each maturity period. Initially at present, the Ministry of Finance places emphasis on two Benchmark bonds, one of 7 years and another of 10 years maturity. The next step will be to increase benchmark bonds of other maturity periods both short-term and long-term, possibly utilizing techniques of re-opening bonds intended for benchmark and buying back bonds near maturity, or those unsuitable for benchmark or without liquidity.

3. Drawing-up of an annual Auction Calendar for government bonds in advance, so that market players are aware of the volume of government bonds to enter the market and can make preparation accordingly. In many countries, the government is able to schedule the issuance of government

bonds each year in advance to enable market players to plan ahead. At the moment, the Thai government is still unable to provide an advanced annual schedule, except in Treasury Bills and Bank of Thailand Bonds where auction schedules are available in advance but at short notice.

4. The Rural Decentralization Act has empowered local administrative body to raise fund from the bond market for development of public utilities. However, in practice, only large urban administrative bodies such as the Bangkok Metropolis, Chiangmai, Phuket, etc., are capable of doing so. These administrative bodies may issue Revenue Bonds and redeem the capital investment plus interest to investors with income from public utilities.

5. Improvement of infra-structure, for example, the Private Repo, which is expected to grow following the nullification of the BOT-operated Repo; trading of securities borrowing/lending, which have been under an unrealized development plan for several years. Also being developed are hedging instruments such as Bond Futures, etc.





7.4 Future Challenges

Although the bond market has gained a healthy growth during the past ten years under the government policy that specifically aims at developing it to the same status of other markets of importance in the financial sector, in the near future the money markets are likely to face changes from both internal and external factors as stated below. This will inevitably affect the bond market.


1. The financial liberalization will create heavier competition in the Primary and Secondary Markets. More foreign financial institutions are expected to come in to play a more active role in the market. Presently, existing foreign banks, be it a branch or locally incorporated, are maintaining a high profile both as underwriter and dealer. Since 2004, the market share of foreign banks in the capacity of lead-underwriter has gradually increased in that the 11.3% market share of the top five lead-underwriters in 2004 has increased to 27.4% and 37.8% in 2005 and 2006 respectively. In the capacity of dealer, six out of the top ten most active dealers are foreign banks who shared the 42.3% of the market in the first quarter of 2007. The Stock Exchange Commission is contemplating liberalization of securities trading in 2012, whereby unlimited licensees would be granted, and expect to attract more investors both in the bond and equity markets, especially foreign corporate investors. As foreign banks are

larger in capital, with worldwide network, more sophisticated technical know-how and qualified human resources than Thais, the local banks must be well prepared to face the competition with extensive self-development.

2. The Growth of Regional Bond Market

Efforts in developing a regional bond market have begun since 2003. The two launches of Asian Bond Fund (ABF) and the opening of market to permit foreign issuers to issue bonds in Thai baht are the initiation of developing the Asian Bond market. In the next stage, better cooperation in ridding of barriers such as capital control, tax, etc., and the standardization of infra-structure should help increase cross border trading, particularly demand in long-term bonds as various foreign fixed income funds are interested in long-terms investment. Thailand must be ready in the infra-structure, for example, international clearing, international rating and other services to facilitate foreign investment.

To summarize, the past decade (1997-2006) has seen an impressive and significant progress of the Thai Bond market that has grown in every respect, i.e., the volume of bonds circulating in the market and technology supporting the transaction in clearing and settlement, and payment. Its commission oversees trading in the market with precision and fair judgment. Its data system provides prompt and adequate information to support trading. All concerned parties from



both the government and private sectors are in full cooperation to move the bond market forward in the appropriate direction. At this point in time, the bond market is well equipped to grow steadily. Notwithstanding, it must carry on further development in order to catch up with the globalization trend and to meet the local and regional economic growth.



ANNEX 1

STATISTICAL TABLES

Table 1
Thailand's Key Economic Indicators

	1992	1993	1994	1995	1996	1997	1998	1999
Population (millions)	57.62	58.44	59.24	59.28	59.90	60.50	61.2	61.80
GDP at constant 1988 price (THB Billion)	2,282.6	2,470.9	2,693.0	2,941.7	3,115.3	3,072.6	2,749.7	2,872.0
GDP Growth Rate (%)	8.1	8.3	9.0	9.2	5.9	-1.4	-10.5	4.4
GDP at current price (THB Billion)	2,830.9	3,165.2	3,629.3	4,186.2	4,611.0	4,732.6	4,626.4	4,637.1
GNP per capita (THB)	48,311	53,772	60,865	69,326	75,146	76,057	72,979	72,981
Headline Inflation Rate (%)	4.1	3.4	5.0	5.8	5.9	5.6	8.1	0.3
Core Inflation Rate (%) ^{2/}	4.1	4.9	5.3	5.3	5.1	4.7	7.2	1.8
Net capital movement (USD Billion)	8.1	10.5	12.2	21.9	19.5	-4.3	-9.8	-7.9
International reserves (USD Billion)	21.2	25.4	30.3	37.0	38.7	27.0	29.5	34.8
Baht : US\$ (Reference rate) average ^{6/}	25.4	25.3	25.2	24.9	25.3	31.4	41.4	37.8
	2000	2001	2002	2003	2004	2005	2006 p	2007 p
Population (millions)	61.88	62.31	62.80	63.08	61.97	62.42	62.83	62.83 ^{1/}
GDP at constant 1988 price (THB Billion)	3,008.4	3,073.6	3,237.0	3,468.2	3,685.9	3,851.3	4,044.6	n.a.
GDP Growth Rate (%)	4.8	2.2	5.3	7.1	6.3	4.5	5.0	n.a.
GDP at current price (THB Billion)	4,922.7	5,133.5	5,450.6	5,917.4	6,489.8	7,087.77	,816.5	n.a.
GNP per capita (THB)	77,863	80,558	84,919	91,216	99,127	106,816	117,376	n.a.
Headline Inflation Rate (%)	1.6	1.6	0.7	1.8	2.7	4.5	4.7	1.9 ^{3/}
Core Inflation Rate (%) ^{2/}	0.7	1.3	0.4	0.2	0.4	1.6	2.3	1.1 ^{3/}
Net capital movement (USD Billion)	-10.3	-3.5	-1.8	-4.8	3.6	12.6	8.9	-2.7 ^{4/}
International reserves (USD Billion)	32.7	33.0	38.9	42.1	49.8	52.1	67.0	74.4 ^{5/}
Baht : US\$ (Reference rate) average ^{6/}	40.2	44.5	43.0	41.5	40.3	40.3	37.93	34.84 ^{3/}

Remarks: P = Preliminary

1/ = Preliminary figures at end - December 2007.

2/ = Exclude raw food and energy items from the consumer price index basket.

3/ = Preliminary figures of January - August 2007.

4/ = Preliminary figures of January - July 2007.

5/ = The outstanding amount as at end - August 2007.

6/ = Since July 1997, the figures are represented by average inter-bank exchange rate.

Source: Bank of Thailand

Table 2
Thailand's Key Interest Rates

	1992	1993	1994	1995	1996	1997	1998	1999
Interbank overnight lending rate ^{1/}	6.93	6.54	7.25	10.96	9.23	15.69	13.02	1.77
Repurchase rate ^{1/}								
1-day						14.80	13.50	1.24
14-day						14.87	13.79	2.08
Prime rate ^{2/ 3/}	11.50	10.50	11.75	13.75	13.00-13.25	15.25	11.50-12.00	8.25-8.5
1-year fixed deposit rate ^{2/ 3/}	8.5	7.0	8.25-10.25	10.25-11.00	8.50-9.25	10.00-13.00	6.00	4.00-4.25
	2000	2001	2002	2003	2004	2005	2006	2007^{4/}
Interbank overnight lending rate ^{1/}	1.95	2.00	1.76	1.31	1.23	2.62	4.64	4.02
Repurchase rate ^{1/}								
1-day	1.10	1.71	1.65	1.36	1.21	2.63	4.64	4.03
14-day	1.52	2.02	1.98	1.52	1.40	2.74	4.77	4.03
Prime rate ^{2/ 3/}	7.50-8.25	7.00-7.50	6.50-7.00	5.50 - 5.75	5.50 - 5.75	6.50-6.75	7.50-8.00	6.85-7.13
1-year fixed deposit rate ^{2/ 3/}	3.5	2.75-3.00	2.0	1.0	1.0	2.50-3.50	4.00-5.00	2.25-2.38

Remark : 1/ = Average

2/ = End of period

3/ = As quoted by the five largest banks

4/ = As of June 2007

Source: Bank of Thailand

Table 3 : Size of Thai Financial Market

(THB Billion)

	1992	1993	1994	1995	1996	1997	1998	1999
Financial Institution Loans ^{1/}	2,909.26	3,660.60	4,775.03	5,979.41	6,911.95	8,171.09	7,360.40	6,478.58
SET Market Capitalization	1,485.02	3,325.39	3,300.75	3,564.57	2,559.58	1,133.34	1,270.63	2,172.43
Outstanding Domestic Debt Securities	215.10	262.00	339.00	424.40	519.30	546.80	941.30	1,388.60
GDP at Current Prices	2,830.9	13,165.22	3,629.34	4,186.21	4,611.04	4,732.61	4,626.45	4,637.08
GDP Growth Rate (at 1988 Prices)	8.1	8.3	9.0	9.2	5.9	-1.4	-10.5	4.4
	2000	2001	2002	2003	2004	2005	2006	2007 (Jun)
Financial Institution Loans ^{1/}	5,962.16	5,686.94	5,891.73	6,145.31	6,598.06	7,106.34	7,374.83	7,519.44
SET Market Capitalization	1,279.22	1,607.31	1,981.37	4,789.86	4,521.89	5,105.11	5,078.70	5,966.09
Outstanding Domestic Debt Securities	1,634.80	1,882.90	2,300.00	2,518.00	2,740.34	3,366.84	4,085.26	4,473.85
GDP at Current Prices	4,922.73	5,133.50	5,450.64	5,917.37	6,489.80	7,087.70	7,813.10	8,209.16 ^{p/}
GDP Growth Rate (at 1988 Prices)	4.8	2.2	5.3	7.1	6.3	4.5	5.0	4.3 ^{p/}

Remarks: 1/ Include loans extended by commercial banks and other financial institutions, namely, finance companies, credit foncier companies, insurance companies, the Government Savings Bank, the Government Housing Bank, the Bank for Agriculture and Agricultural Cooperatives, and the Small and Medium Enterprise Development Bank of Thailand.

P = Preliminary

Sources: BOT, NESDB, SET, and ThaiBMA

Table 4 : Size of Local Currency Bond Market in Selected Asian Countries

(USD Billion)

End of Period	China			HongKong			Indonesia			Japan			Korea		
	Govt	Corp	Total	Govt	Corp	Total	Govt	Corp	Total	Govt	Corp	Total	Govt	Corp	Total
1997	156	42.2	57.7	13.1	32.7	45.8	0	2.8	2.8	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1998	63.8	62.8	126.6	12.6	38.9	51.5	0	1.7	1.7	2,763.5	1,093.6	3,857.1	n.a.	n.a.	n.a.
1999	83	76.3	159.3	13.1	44	57.1	0	2	2	3,481.9	1,209.4	4,691.3	n.a.	n.a.	n.a.
2000	110.6	91.7	202.2	13.9	46.6	60.5	3.3	2	5.2	3,499.4	1,053.1	4,552.5	n.a.	n.a.	n.a.
2001	132.5	105.7	238.3	14.6	48.7	63.3	6.2	1.8	8	3,529.8	882.3	4,412.1	126.9	290	416.9
2002	215.1	127	342.2	15.1	53.3	68.3	44.5	2.4	46.9	4,503.6	897.5	5,401.1	159.2	346.8	506
2003	294.8	153.5	448.3	15.5	56.4	71.8	46.4	5.4	51.8	5,541.8	907.1	6,449	212.1	332.8	544.9
2004	433.4	190.1	623.5	15.8	62.4	78.2	43.1	6.3	49.4	6,556.3	891.1	7,447.4	337.2	371.4	708.6
2005	615.9	283.4	899.3	16.3	69.3	85.6	40.7	5.9	46.6	6,302.5	743.9	7,046.4	404.1	400.5	804.6
2006	785.5	397.9	1183.4	16.9	79.3	96.2	46.6	6.8	53.4	6,389.2	706.9	7,096.1	469.1	489.8	959
2007 (June)	923.4	445.6	1369	17.2	82	99.2	50	8.5	58.5	6,218.9	681.5	6,900.4	485.7	550.2	1035.8
End of Period	Malaysia			Philippines			Singapore			Thailand			Vietnam		
	Govt	Corp	Total	Govt	Corp	Total	Govt	Corp	Total	Govt	Corp	Total	Govt	Corp	Total
1997	n.a.	n.a.	n.a.	17.9	0	17.9	13	10.7	23.8	1.4	9.1	10.5	n.a.	n.a.	n.a.
1998	n.a.	n.a.	n.a.	20.3	0	20.3	17.3	12.1	29.5	12.1	11.6	23.8	n.a.	n.a.	n.a.
1999	n.a.	n.a.	n.a.	22.8	0	22.8	21.1	16.2	37.3	17.1	14.2	31.2	n.a.	n.a.	n.a.
2000	28.8	41.3	70.2	20.7	0	20.7	25	19.7	44.6	16.7	14	30.7	n.a.	n.a.	n.a.
2001	32.8	46.7	79.5	23.6	0	23.6	29	25.8	54.8	20.9	14.9	35.8	n.a.	n.a.	n.a.
2002	35.9	44	79.9	27	0	27	33.6	28	61.6	31.6	15.3	46.9	n.a.	n.a.	n.a.
2003	44.4	49.3	93.7	30.4	0	30.4	37.1	30.1	67.2	36.8	21.3	58.1	2.9	0	2.9
2004	48.1	48.7	96.8	35	0	35	44.3	35.8	80.1	44.4	22.3	66.7	3.8	0	3.8
2005	52.2	54.4	106.7	40.2	0	40.2	47	36.3	83.3	54.3	24.6	78.8	4.2	0.1	4.3
2006	60.9	60.4	121.3	43.5	0	43.5	56.1	43.6	99.7	74.6	36.9	111.5	4.5	0.4	4.9
2007 (June)	76.5	62.7	139.1	45.4	4.4	49.7	60.9	43.6	104.5	93.2	43.3	136.5	6.4	0.7	7.1

Remarks: Govt = Government Corp = Corporate Source: AsianBondsOnline.com

Table 5
Issuance of Domestic Bonds

Unit: THB Billion

	1994	1995	1996	1997	1998	1999	2000
Government Bonds ^{1/}	-	-	-	-	400	333.7	94.1
T-Bills	-	-	-	-	-	77	240.9
State enterprise Bonds	57.1	55.2	57.4	49.3	46.7	95.3	111.7
- Guaranteed	50.8	55.2	43.1	41.3	46.7	90.1	90.4
- Non-guaranteed	6.3	-	14.3	8	-	5.1	21.3
State Agency Bonds	-	29.5	138.8	191.5	55	-	-
Corporate Bonds	59.8	47.5	36.2	40.9	37.8	289.3	151.2
- Foreign Bonds	-	-	-	-	-	-	-
Total	116.9	132.2	232.4	281.7	539.5	795.3	597.9
	2001	2002	2003	2004	2005	2006	2007 (Aug)
Government Bonds ^{1/}	149.2	471.5 ^{2/}	107.5	271.3	188.9	220.7	223.1
T-Bills	441.4	519.0	369.0	569.0	494.0	897.2	431.0
State enterprise Bonds	57.6	47.5	56.4	88.5	99.44	69.70	49.5
- Guaranteed	57.5	39.5	19.5	40.6	61.7	39.0	28.7
- Non-guaranteed	0.1	8.0	37.0	47.8	37.7	30.9	8.9
State Agency Bonds	112.0	-	219.5	317.3	988.28	1,001.6	2,593.1
Corporate Bonds	106.7	98.9	181.3	122.4	179.4	881.4	747.8
- Foreign Bonds	-	-	-	-	7	9.1	7.4
Total	866.9	1,136.9	930.6	1,368.4	1,957.7	3,077.4	4,040.0

Remarks: 1/ Include those issued under the Government's tier1/tier2 Capital assistance program

2/ Include THB 305 billion saving bonds

Sources: BOT, SEC, and PDMO

Table 6
Outstanding Value of Domestic Bonds

Unit: THB Billion

	1994	1995	1996	1997	1998	1999	2000
Government Bonds	62.5	43.0	18.0	13.8	426.9	587.1	658.7
T-Bills	-	-	-	-	-	25.0	62.0
State enterprise Bonds	190.4	238.3	278.4	293.8	300.6	356.4	408.8
- Guaranteed	159.8	208.7	239.7	247.3	255.7	309.1	345.3
- Non-guaranteed	30.6	29.6	38.7	46.5	44.9	47.3	63.5
State Agency Bond ^{1/}	-	9.5	40.5	51.6	36.2	18.1	4.1
Corporate Bonds	86.1	133.6	182.4	187.6	177.6	402.0	501.2
- Foreign Bonds	-	-	-	-	-	-	-
Total	339.0	424.4	519.3	546.8	941.3	1,388.6	1,634.8
	2001	2002	2003	2004	2005	2006	2007 (Aug)
Government Bonds	706.4	1,114.6	1,132.2	1,306.5	1,360.5	1,509.1	1,695.2
T-Bills	110.0	134.0	127.0	168.0	209.0	228.0	158.0
State enterprise Bonds	416.1	395.7	412.2	405.2	489.1	492.9	517.1
- Guaranteed	357.3	343.7	327.3	321.5	333.8	325.0	329.2
- Non-guaranteed	58.8	52.0	84.9	83.7	155.3	167.8	187.9
State Agency Bonds ^{1/}	112.3	112.3	239.3	312.3	641.3	896.7	1,121.0
Corporate Bonds	538.1	543.4	607.3	548.3	659.9	942.5	1,052.4
- Foreign Bonds	-	-	-	-	7.0	16.	23.5
Total	1,882.9	2,300.0	2,518.0	2,740.3	3,366.8	4,085.3	4,567.2

Remark: 1/ Exclude THB 455 billion short-term FIDF bonds traded in the Repo market at the Bank of Thailand.

Sources: BOT, SEC, PDMO and Registrars (BAY, BBL, BFITSEC, DTDB, IFCT, KGI, SCB, SCIB, TFB, TISCO, TMB, TSD)

Table 7
ThaiBMA Trading Value

Unit: THB Million

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Government Bonds	n.a.	n.a.	43,090	341,084	1,027,781	916,473	1,177,212	1,154,578	1,054,754	785,061
State Enterprise Bonds	n.a.	n.a.	7,533	50,784	207,864	140,383	113,549	101,634	105,728	126,829
- Guaranteed	n.a.	n.a.	6,636	42,535	191,688	123,871	104,597	69,714	80,986	88,678
- Non-guaranteed	n.a.	n.a.	897	8,249	16,176	16,512	8,952	31,920	24,742	38,151
T-Bills	n.a.	n.a.	n.a.	3,777	47,414	350,837	700,850	578,817	925,375	997,085
State Agency Bonds	4,833	15,235	12,579	2,732	662	93,233	63,347	557,423	769,206	1,886,009
Corporate Bonds	195,775	90,955	8,896	32,819	73,400	91,294	90,082	214,188	114,406	89,375
Foreign Bonds	-	-	-	-	-	-	-	-	-	394
Total Value	200,608	106,190	72,098	431,197	1,357,121	1,592,219	2,145,040	2,606,640	2,969,469	3,894,753
- Monthly Average	16,717	8,849	6,008	35,933	113,093	132,685	178,753	217,220	247,456	323,729
- Daily Average	822	430	297	1,760	5,494	6,472	8,755	10,553	12,120	15,856
- No. of trading days	244	247	243	245	247	246	245	247	245	245
No. of transaction	18,106	7,568	1,658	9,993	31,876	44,588	57,449	51,569	32,143	44,663
- Monthly Average	1,509	631	138	833	2,656	3,716	4,787	4,297	2,679	3,722
- Daily Average	74	31	7	41	129	181	234	209	131	182
Dealer Participation	71	55	31	40	47	39	44	45	43	41

Source: ThaiBMA

Table 7 (continued)
ThaiBMA Trading Value

Unit: THB Million

	2006	2007 (Jan-Aug)
Government Bonds	631,117	835,687
State Enterprise Bonds	83,833	53,641
- Guaranteed	51,555	31,859
- Non-guaranteed	32,278	21,782T
T-Bills	1,500,203	581,383
State Agency Bonds	1,968,202	5,248,498
Corporate Bonds	92,544	110,326
Foreign Bonds	1,602	6,366
Total Outright Trading Value	4,277,500	6,835,901
- Monthly Average	356,458	569,658
- Daily Average	243	164
- No. of trading days	17,603	41,682
No. of Outright Transaction	52,117	59,388
- Monthly Average	4,343	4,949
- Daily Average	214	362
Dealer Participation	40	36
Financing & Other Trading Value	2,677,696	3,842,715
Total Value	6,955,197	10,678,616

Source: ThaiBMA

Table 8
ThaiBMA Outstanding Value

Unit: THB Million

	1996	1997	1998	1999	2000	2001
Government Bonds	n.a.	n.a.	330,446.00	538,846.29	586,261.25	618,176.00
State enterprise Bonds	n.a.	n.a.	286,457.55	356,369.53	407,346.82	414,448.15
- Guaranteed	n.a.	n.a.	253,696.05	309,090.64	345,339.86	357,278.26
- Non-guaranteed	n.a.	n.a.	32,761.50	47,278.89	62,006.96	57,169.89
T-Bills	n.a.	n.a.	n.a.	n.a.	62,000.00	110,000.00
State Agency Bonds1/	18,500.00	36,500.00	21,000.00	10,000.00	4,076.00	112,337.28
Corporate Bonds	130,188.92	132,591.34	125,841.35	179,386.61	209,883.28	251,720.30
Foreign Bonds	-	-	-	-	-	-
Total Value	148,688.92	169,091.34	763,744.90	1,084,602.43	1,269,567.35	1,506,681.73
	2002	2003	2004	2005	2006	2007 (Aug)
Government Bonds	724,676.00	742,176.00	1,118,576.00	1,291,663.90	1,469,263.55	1,655,378.55
State enterprise Bonds	394,075.68	406,304.73	418,022.16	486,122.82	490,921.75	515,609.33
- Guaranteed	343,705.94	328,132.23	321,688.66	361,761.19	332,900.01	336,975.30
- Non-guaranteed	50,369.74	78,172.50	96,333.50	124,361.63	158,021.74	178,634.03
T-Bills	134,000.00	127,000.00	168,040.00	209,000.00	228,000.00	158,000.00
State Agency Bonds1/	112,337.28	242,337.28	312,340.00	641,332.00	896,702.00	1,146,577.00
Corporate Bonds	280,341.90	377,258.63	385,279.28	487,620.68	850,327.33	896,066.70
Foreign Bonds	-	-	-	7,000.00	16,100.00	23,500.00
Total Value	1,895,076.64	1,895,076.64	2,402,257.44	3,122,739.40	3,951,314.63	4,395,131.58

Source: ThaiBMA

Table 9
Summary of ThaiBMA Registered Bonds (2006 –August 2007)

	2006			2007 (Jan-Aug)		
	No. of Issues	Outstanding Value (THB Million)	% of Total Outstanding	No. of Issues	Outstanding Value (THB Million)	% of Total Outstanding
Government Debt Securities	504	3,084,887.30	78.07	515	3,475,564.88	79.08
Treasury Bills	43	228,000.00	5.77	43	158,000.00	3.59
Government Bonds	54	1,469,263.55	37.18	66	1,655,378.55	37.66
–Loan Bonds	30	1,046,176.00	26.48	34	1,228,291.00	27.95
–Saving Bonds	24	423,087.55	10.71	32	427,087.55	9.72
State Owned Enterprise Bonds	376	490,921.75	12.42	377	515,609.33	11.73
–Guaranteed	284	332,900.01	8.43	286	336,975.30	7.67
–Non - Guaranteed	92	158,021.74	4	91	178,634.03	4.06
State Agency Bond	31	896,702.00	22.69	29	1,146,577.00	26.09
Corporate Bonds	1008	850,327.24	21.52	1,130	896,066.70	20.39
–Long-term Corporate Bonds	263	608,909.87	15.41	280	649,427.20	14.78
–Commercial Papers	745	241,417.37	6.11	850	246,639.50	5.61
Foreign Bonds	5	16,100.00	0.41	9	23,500.00	0.53
Grand Total	1,517	3,951,314.54	100.00	1,654	4,395,131.58	100.00
Total New Registered Bonds	2,709	1,629,974.25	100	2,158	3,659,293.06	100
Government Debt Securities ^{1/}	117	1,308,050.20	80.25	146	2,910,876.29	79.55
Long-term Corporate Bond	84	213,973.92	13.13	53	106,016.21	2.9
Commercial Paper	2,508	107,950.13	6.62	1,959	642,400.56	17.56
Total Redemptions	1,923	1,386,849.37	100.00	2,030	3,153,604.40	100.00
Government Debt Securities ^{1/}	126	870,281.62	62.75	135	2,449,198.71	77.66
Long-term Corporate Bond	34	80,332.48	5.79	39	65,498.96	2.08
Commercial Paper	1,763	436,235.27	31.46	1,856	638,906.73	20.26
Net Change	786	262,124.88		338	435,688.66	
Government Debt Securities ^{1/}	–9	437,768.58		11	461,677.58	
Long-term Corporate Bond	50	133,641.44		14	40,517.25	
Commercial Paper	745	–328,285.14		103	3,493.83	
Treasury Bills	0	19,000.00		210	–70,000.00	

Remark: 1/ Excluding Treasury Bills

Source: ThaiBMA

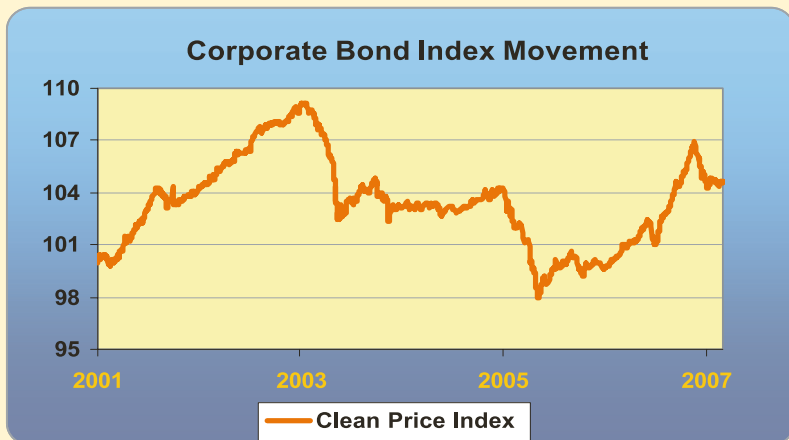
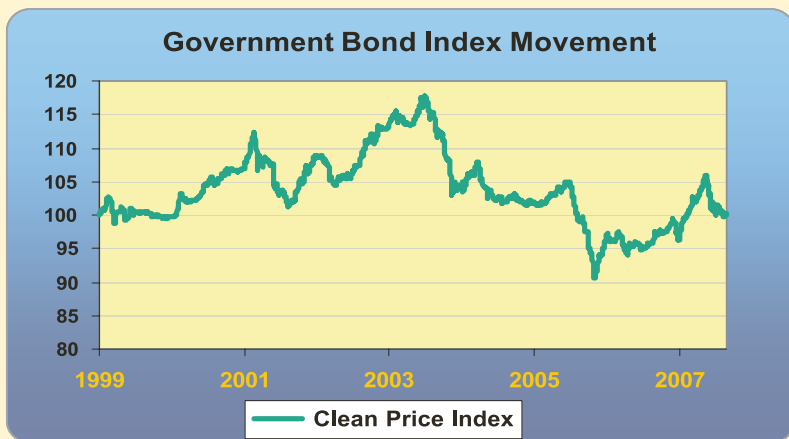
Table 10
ThaiBMA Bond Indices

Government Bond Index

End of Period	Clean Price		Gross Price		Total Return	
	Index	Return	Index	Return	Index	Return
Dec 1999	99.69		99.58		107.75	
Dec 2000	106.85	7.18%	106.71	7.16%	123.14	14.29%
Dec 2001	108.75	1.77%	108.61	1.79%	133.40	8.33%
Dec 2002	113.13	4.02%	112.85	3.90%	146.99	10.18%
Dec 2003	104.53	-7.60%	104.23	-7.64%	143.32	-2.49%
Dec 2004	101.95	-2.47%	101.75	-2.38%	147.43	2.87%
Dec 2005	96.42	-5.42%	96.20	-5.46%	147.09	-0.23%
Dec 2006	96.43	0.02%	97.87	1.74%	155.15	5.48%
Aug 2007	100.06	3.76%	101.32	3.53%	166.39	7.25%

Investment Grade Corporate Bond Index

End of Period	Clean Price		Gross Price		Total Return	
	Index	Return	Index	Return	Index	Return
Dec 2001	103.02		104.15		106.24	
Dec 2002	106.38	3.26%	107.41	3.12%	116.44	9.60%
Dec 2003	103.68	-2.54%	104.57	2.64%	119.34	2.49%
Dec 2004	103.03	-0.62%	103.81	0.72%	123.84	3.77%
Dec 2005	99.60	-3.33%	100.36	-3.32%	125.29	1.17%
Dec 2006	101.03	1.44%	102.01	1.64%	133.53	6.58%
Aug 2007	104.51	3.44%	105.66	3.58%	142.73	6.89%



Source: ThaiBMA

Table 11
ThaiBMA Government Interpolation Yields

Per cent

	27-Dec-02	31-Dec-03	30-Dec-04	30-Dec-05	29-Dec-06	31-Aug-07
1M	1.69	0.90	1.39	3.72	4.95	3.06
3M	1.71	1.06	1.85	3.88	4.93	3.04
6M	1.72	1.16	2.18	4.11	4.90	3.12
1Y	1.77	1.26	2.37	4.38	4.91	3.31
2Y	1.89	1.73	2.78	4.94	5.02	3.42
3Y	2.02	2.12	3.19	5.11	5.06	3.64
4Y	2.16	2.55	3.54	5.16	5.09	3.88
5Y	2.41	2.81	4.03	5.25	5.12	4.10
6Y	2.68	3.40	4.23	5.29	5.15	4.31
7Y	3.10	3.83	4.49	5.33	5.22	4.46
8Y	3.28	4.39	4.66	5.36	5.28	4.62
9Y	3.47	4.70	4.74	5.40	5.36	4.73
10Y	3.64	4.94	4.85	5.47	5.44	4.80
11Y	3.73	5.09	4.97	5.51	5.51	4.89
12Y	3.84	5.21	5.04	5.57	5.55	4.97
13Y	3.93	5.34	5.09	5.62	5.59	5.01
14Y	4.00	5.52	5.12	5.66	5.64	5.04
15Y	4.08	5.59	5.16	5.72	5.73	5.05
16Y	4.17	5.63	5.23	5.77	5.77	5.06

Source: ThaiBMA

ANNEX 2

MEMBERS OF THETHAIBMA

No.	Name	Address
Ordinary Members		
1	ABN-AMRO Bank N.V. (ABNA)	3rd - 4th Floor, Bangkok City Tower, 179/3 South Sathorn Rd., Bangkok 10120 Phone : 679-5900 Fax : 679-5908 Website : http://www.abnamro.com
2	ADKINSON SECURITIES Public Company Limited (ASL)	2nd Floor, Sindhorn Bldg., 132 Wireless Rd., Lumpinee, Bangkok 10330 Phone : 263-3733 Fax : 254-2171 Website http://www.adkinsononline.com
3	Apex Securities Company Limited (APEX)	1st Floor, Sindhorn Building, 132 Wireless Rd., Lumpini, Pathumwan, Bangkok 10330 Phone : 256-7888 Fax : 256-7899
4	ACL Securities Company Limited (ACLS)	18th Floor, The Offices at Central World, 999/9 Rama I Rd., Patumwan, Bangkok 10330 Phone : 658-9000 Fax : 658-9179 Website http://www.acsec.co.th
5	Ayudhya Securities Public Company Limited (AYS)	12th Floor, The Offices at Central World, 999/9 Rama I Rd., Patumwan, Bangkok 10330 Phone : 0-2658-6767 Fax : 0-2263-0408 Website http://www.ays.co.th

No.	Name	Address
6	Bangkok Bank Public Company Limited (BBL)	9th Floor, 333 Silom Rd., Bangkok 10500 Phone : 231-4333 Fax : 236-8278 Website http://www.bangkokbank.com
7	Bank of America, National Association (BofA)	All Seasons Place, CRC Tower, 33rd Floor, 87/2 Wireless Road, Pathumwan Bangkok 10330 Phone: (66) 0-2305-2900 Fax (66) 2305-2809 Website : http://www.bankofamerica.com
8	United Overseas Bank (Thai) Public Company Limited (UOBT)	7th Floor, 191 South Sathorn Rd. Bangkok 10120 Phone : 213-2601-3 Fax : 285-1375 Website : http://www.BankAsia4U.com
9	Bank of Ayudhya Public Company Limited (BAY)	1222 Rama III Rd., Bang Pongpang Yannawa Bangkok 10120 Phone : 296-2000 Fax : 0-2296-4829 Website : http://www.www.krungsri.com
10	Barclays Capital Securities (Thailand) Limited (BARCAP)	21 Floor, CRC Tower, All Seasons Place, 87/2 Wireless Road, Pathumwan, Bangkok 10330 Phone : 0-2686-1921 Fax: 0-2686-1903 Website : http://www.barcap.com

No.	Name	Address
11	BFIT Securities Company Limited Co., Ltd. (BSEC)	191 Silom Complex Building 14th Fl. Room A 16th Fl. Room B-C, 1-4 Silom Road, Silom, Bangrak, Bangkok 10500 Tel : (66)0-2200-2000 Fax: (66)0-2632-0191 Website : http://www.bfitsec.com
12	BNP Paribas, Bangkok Branch (BNPP)	29 Abdulrahim Place, 990 Rama IV Road, Bangrak, Bangkok 10500 Phone : 0-2636-1900 Fax: 0-2636-1935 Website : http://www.bnpparibas.com
13	BT Securities Company Limited (BTsec)	44 BankThai Bldg., G Floor 24-26 Soi Langsuan, Ploenchit Rd., Lumpini, Bangkok 10330 Phone : 0-2657-9000 Fax : 0-2657-9822 Website: http://www.BTsecurities.com
14	Calyon Corporate and Investment Bank, Bangkok Branch (Calyon)	152 Wireless Rd., Bangkok 10330 Phone : 0-2651-4590-2 Fax : 0-2651-4593 Website : http://www.calyon.com

No.	Name	Address
15	Capital Nomura Securities Public Company Limited (CNS)	21/3 Thai Wah Tower, Ground Floor, South Sathorn Rd., Bangkok 10120 Phone : 0-2285-0060 Fax : 0-2285-0886 Website : http://www.cns.co.th
16	Citibank, N.A. (CITI)	18th Floor, 82 North Sathorn Rd., Bangrak, Bangkok 10500 Phone : 0-2232-2000 Fax : 0-2639-2564 Website : http://www.citibank.com/thailand
17	Citicorp Securities (Thailand) Limited (CST)	21st, 22nd Floor, Citibank Tower, 82 North Sathorn Rd., Silom, Bangrak, Bangkok 10500 Phone : 0-2232-2200 Fax : 0-2639-2269 Website : http://www.citygroup.com
18	DBS Vickers Securities (Thailand) Company Limited (DBSV)	989 Siam Tower, 14th – 15th Floor, Rama 1 Road, Pathumwan, Bangkok 10330 Phone : 0-2657-7000 Fax : 0-2658-1258 Website : http://www.dbsvittrade.com

No.	Name	Address
19	Deutsche Bank AG, Bangkok Branch (DBBK)	208 Wireless Rd., Bangkok 10330 Phone : 0-2651-5000 Fax : 0-2651-5210 Website : http://www.db.com
20	Far East Securities Company Limited (FES)	18th, 38th, 39th Floor, CRC Tower, All Seasons Place, Wireless Rd., Lumpini, Patumwan Bangkok 10330 Tel. 0-2648-1111 Fax. 0-2648-1000 Website : http://www.fes.co.th
21	Finansa Securities Limited (FSL)	12nd Floor, 48/22-23,48/45-46 Tisco Tower, North Sathorn Rd. Bangkok 10500 Phone : 0-2697-3700 Fax : 0-2266-6688 Website : http://www.finansa.com
22	Globex Securities Company Limited (GLOBLEX)	87/2, 12th Floor, CRC Tower All Seasons Place, Wireless Road, Bangkok 10330 Phone: 0-2672-5999 Fax. 0-2672-5956 Website : http:// www.globlexsecurities.com
23	The Hongkong and Shanghai Banking Corporation Limited (HSBC)	HSBC Building, 968 Rama IV Road, Silom, Bangrak, Bangkok 10500 Phone : 0-2614-4000 Fax : 0-2632-4900 Website : http://www.hsbc.com

No.	Name	Address
24	IV Global Securities Public Company Limited (IVG)	Mercury Building, 17th - 18th Floor, 540 Ploenchit Rd., Patumwan, Bangkok 10330 Phone : 0-2658-5800 Fax: 0-2658-5799
25	J.P. Morgan Securities (Thailand) Limited (JPM)	20 North Sathorn Rd., 3rd Fl., Silom Bangrak, Bangkok 10500 Phone : 0-2684-2600 Fax : 0-2684-2720 Website : http://www.jpmorgan.com
26	Kasikornbank Public Company Limited (KBANK)	1 Soi Thai Farmers Bank, Ratburana Rd., Bangkok 10140 Phone : 0-2470-3042-7 Fax : 0-2871-3637 Website : http://www.kasikornbank.com
27	KGI Securities (Thailand) Public Company Limited (KGI)	United Center Building 23 Fl., 323 Silom Rd., Bangkok 10500 Phone : 231-1111 Fax : 0-2267-8315 Website : http://www.kgi.co.th
28	Kiatnakin Securities Company Limited (KKS)	7th - 8th Floor, Amarin Tower, 500 Ploenchit Rd., Patumwan, Bangkok 10330 Phone : 0-2680-2222 Fax : 0-2256-9783 Website : http://www.kks.co.th
29	Kim Eng Securities (Thailand) Limited (KEST)	20th Floor, The Offices at Central World, 999/9 Rama I Rd., Patumwan, Bangkok 10330 Phone : 0-2658-6300 Fax : 0-2658-6855 Website : www.kimeng.co.th

No.	Name	Address
30	Thanachart Securities Public Company Limited (TCAP)	14th , 18th , 19th Floor, MBK Tower 444 Phayathai Rd., Patumwan, Bangkok 10330 Phone : 0-2217-8888 Fax : 0-2217-9814 Website : http://www.thanachartsec.co.th E-mail : natsec@asiaaccess.net.th
31	Phatra Securities Company Limited (Phatra)	16th Floor, Mueng Thai-Phatra Bldg. 1, 252/6 Ratchadapisak Rd., Huai Khwang Bangkok 10320 Phone : 0-2275-0888 Fax : 0-2693-2353 Website : http://www.phatrasecurities.com
32	SCB Securities Company Limited (SCBS)	2nd Floor, Sindhorn Bldg., Tower III, 130-132 Wireless Rd., Patumwan Bangkok 10330 Phone : 0-2686-2000 Fax : 263-3808 Website : http://www.scbs.com
33	SEAMICO Securities Public Company Limited (Z-MICO)	15th, 17th, 21st Floor, Liberty Square, 287 Silom Rd., Bangrak, Bangkok 10500 Phone : 0-2695-5000 Fax : 0-2695-5004 Website : http://www.seamico.co.th
34	Siam City Bank Public Company Limited (SCIB)	1101 New Petchburi Rd., Makhasan, Rachatavee, Bangkok 10400 Phone : 0-2208-5000 Fax : 0-2651-7856 Website : http://www.scib.co.th

No.	Name	Address
35	Siam City Securities Company Limited (SCIBS)	9th Floor, The Offices at Central World, 999/9 Rama I Rd., Patumwan, Bangkok 10330 Phone. 0-2624-8888 Fax. 0-2624-8899 Website : http://www.scis.co.th
36	Siam Commercial Bank Public Company Limited (SCB)	9th Floor, 9 Ratchadapisak Rd., Lat Yao, Chatuchak, Bangkok 10900 Phone : 0-2544-1111 Fax : 0-2544-3316 Website : http://www.scb.co.th
37	SICCO Securities Public Company Limited (SSEC)	1st, 2nd, 6th Floor, Sindhorn Tower II and 12th Floor, Sindhorn Tower III 130-132 Wireless Rd., Lumpini, Patumwan, Bangkok 10330 Phone : 0-2627-3100 Fax : 0-2263-2043 Website : http://www.ssec-online.com
38	Standard Chartered Bank (Thai) Public Company Limited (SCBT)	90 North Sathorn Road, Silom, Bangrak Bangkok 10500 Phone : 0-2724-4000 Fax : 0-2236-1963 Website : http://www.standardchartered.com
39	Syrus Securities Company Limited (SYRUS)	12th, 15th, 17th and 18th Floor, Alma Link Building 25 Soi Chidlom, Ploenchit Lumpini, Patumwan Bangkok 10330 Phone: 0-2646-9999 Fax: 0-2646-9889 Website : http://www.syrus.co.th

No.	Name	Address
40	TMB Bank Public Company Limited (TMB)	8th Floor, 393 Silom Rd., Bangrak Bangkok 10500 Phone : 0-2230-5692-3, 0-2230-5030 Fax : 0-2230-5788 Website : http://www.tmbbank.com
41	TISCO Bank Public Company Limited (TISCO)	4th Floor, Tisco Tower 48/8 North Sathorn Rd., Bangkok 10500 Phone : 0-2633-6000 Fax : 0-2633-6800 Website : http://www.tisco.co.th
42	Trinity Securities Company Limited (TRINITY)	25th floor, Bangkok City Tower, 179/109-110 South Sathorn Rd., Tungmahamek Sathorn Bangkok 10120 Phone : 0-2286-3999 Fax : 0-2286-8444 Website : http://www.trinitythai.com
43	UBS Securities Company Limited (UBS)	2nd Floor, 93/1 Diethelm Tower A, Wireless Road, Patumwan Bangkok 10330 Phone : 0-2651-5700 Fax : 0-2651-5731 Website : http://www.ubs.com
44	United Securities Public Company Limited (US)	6th Floor, Grand Amarin Tower, 1550 New Petchburi Rd., Rachatavee, Bangkok 10320 Phone : 0-2207-0038 Fax : 0-2652-8977 Website : http://www.unitedsec.com

No.	Name	Address
45	UOB Kay Hian Securities (Thailand) Company Limited (UOBKHST)	3rd Floor, Sindhorn Bldg., Tower I, 130-132 Wireless Rd., Patumwan Bangkok 10330 Phone : 0-2659-8000 Fax : 0-2263-2306 Website : http://www.uobkayhain.co.th
46	J. P. Morgan Chase Bank, N.A. (JPMCB)	20 North Sathorn Rd., 3rd Floor, Silom Bangrak Bangkok 10500 Phone : 0-2684-2693 Fax: 0-2684-2690
47	Krung Thai Bank Public Company Limited (KTb)	35 Sukhumvit Road, Klong Toey Nua Subdistrict, Wattana District, Bangkok, 10110 Website: http://www.ktb.co.th
48	Bankthai Public Company Limited (BT)	44 North Sathon Road, Silom, Bangrak, Bangkok 10500 Phone: 0-2633-9000-3, 0-26338-8000 Fax: 0-2633-9026 Website: http://www.bankthai.co.th
49	Bualuang Securities Public Company Limited (BLS)	29/f Silom Complex Office Building, 191 Silom Road, Bangrak, Bangkok 10500 Phone: 0-2231-3777, Fax: 0-2632-0777 Website: http://www.bualuang.co.th

No.	Name	Address
Extraordinary Members		
50	ICAP Securities Public Company Limited (ICAP)	13 Floor Wave Place Building 55 Wireless Road Lumpini Patumwan Bangkok 10330 Phone: 0-2256-0888, Fax: 0-2256-0999
51	Wall Street Tullett Prebon Securities Limited (WSTPS)	33/64 Wall Street Tower, 13th Floor, Surawong Road, Bangrak, Bangkok 10500 Phone: 0-2266-8889 Fax: 0-2632-7375
Associate Member		
52	Asia Plus Securities Public Company Limited (ASP)	3rd Floor, Sathorn City Tower, 175 South Sathorn Road, Sathorn, Bangkok 10120 Phone: 0-2285-1949 , 0-2680-1290 Fax: 0-2679-5134 http://www.asiaplus.co.th

ANNEX 3

THAI BOND MARKET'S RELATED
ORGANIZATIONS

THAI BOND MARKET'S RELATED ORGANIZATIONS

Organization	Website	Address
Ministry of Finance	www.mof.go.th	Rama 6 Road, Phayathai, Bangkok 10400 Tel: (662) 273-9021 Fax: (662) 273-9408
The Fiscal Policy Office	www.fpo.go.th	Rama 6 Road, Phayathai, Bangkok 10400 Tel: (662) 273-9020 Fax: (662) 273-9168
The Public Debt Management Office	www.pdmo.mof.go.th	Rama 6 Road, Phayathai, Bangkok 10400 Tel: (662) 273-9021 Fax: (662) 265-8050
The Revenue Department	www.rd.go.th	90 Soi Phaholyothin7, Phaholyothin Road, Bangkok 10400 Tel: (662) 617-3000-9 Fax: (662) 617-3324-5
Bank of Thailand	www.bot.or.th	273 Samsen Road, Bangkhunphrom, Bangkok 10200 Tel: (662) 283-5353 (662) 283-5010 Fax: (662) 280-0449 (662) 280-0626

Organization	Website	Address
Securities and Exchange Commission, Thailand	www.sec.or.th	10 th , and 15 th -16 th Floors, GPF Witthayu Towers, 93/1 Wireless Road, Lumpini, Patumwan, Bangkok 10330 Tel: (662) 2263-6499, (662) 2695-9999 Fax: (662) 2256-7711
The Stock Exchange of Thailand	www.set.or.th	The Stock Exchange of Thailand Building 62 Ratchadaphisek Road, Klongtoey, Bangkok 10110 Tel: (662) 229-2000, (662) 654-5656 Fax: (662) 654-5649
The Bond Electronic Exchange	www.bex.or.th	5th Floor, The Stock Exchange of Thailand Building, 62 Ratchadaphisek Road, Klongtoey, Bangkok 10110 Tel: (662) 229-2786 Fax: (662) 654-5762
Thailand Securities Depository Company Limited	www.tsd.co.th	4th - 7th Floors, The Stock Exchange of Thailand Building, 62 Ratchadaphisek Road, Klongtoey, Bangkok 10110 Tel: (662) 229-2800 Fax: (662) 359-1259

Organization	Website	Address
Fitch Ratings (Thailand) Limited	www.fitchratings.com	13th Floor, Wave Place, 55 Wireless Road, Bangkok 10330 Tel: 0-2665-4755 Fax: 0-2665-4939
TRIS Rating Company Limited	www.trisrating.com	24th Floor, Silom Complex Building, 191 Silom Road, Bangkok 10500 Tel: 0-2231-3011 Fax: 0-2231-3012
The Association of Investment Management Companies	www.aimc.or.th	3rd Floor, Lake Rajada Office Complex Building 2, Ratchadaphisek Road, Klongtoey, Bangkok 10110 Tel: (662) 264-0900 Fax: (662) 264-0904
The Thai Bond Market Association	www.thaibma.or.th ; www.thaibond.com	21st Floor, Vanissa Building, 29 Soi Chidlom, Ploenchit Road, Bangkok 10330 Tel: (662) 252-3336 Fax: (662) 252-2763

BIBLIOGRAPHY

THAI BOND MARKET

Anya Khanthavit, “Mechanisms of Financial Market in the Thai Economy” 2nd Edition, Amarin Printing and Publishing Public Company Limited Bangkok 2003, in Thai.

Bank for International Settlements, “2004 Triennial Central Bank Survey of Foreign Exchange and Derivative Market Activity”

Japan Bank for International Cooperation, “The Structured Bond Market in Thailand”, JBICI Research Paper No. 35, April 2007.

Office of the Securities and Exchange Commission, Thailand “First Decade of SEC and the Thai Capital Market” (1992-2002) Bangkok 2002, in Thai.

PriceWaterhouseCoopers, “Building the OTC Market for THB Interest Rate Derivatives” 29 March 2006

Public Debt Management Office, Ministry of Finance, “A Century of Thai Bond”, published on the occasion of the 3rd anniversary of the establishment of the POMO, 2005.

Thailand Securities Institute, The Stock Exchange of Thailand “Overview of Financial Markets and Regulators” 1st Edition, Amarin Printing and Publishing Public Company Limited Bangkok September 2005, in Thai.

Wares Uppatik “Economic of Finance and Banking”
6th Edition, Thammasat University Press, Bangkok
February 2001, in Thai.

Asian Development Bank, asianbondsonline.adb.org

Bank for International Settlements, www.bis.org

The Bank of Thailand, www.bot.or.th

The Securities Exchange Commission of Thailand,
www.sec.or.th

The Stock Exchange of Thailand, www.set.or.th

The Thai Bond Market Association, www.thaibma.or.th

