

# **Fixed Income Market Development in Emerging Market Economies: Thailand**

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## 1 Introduction

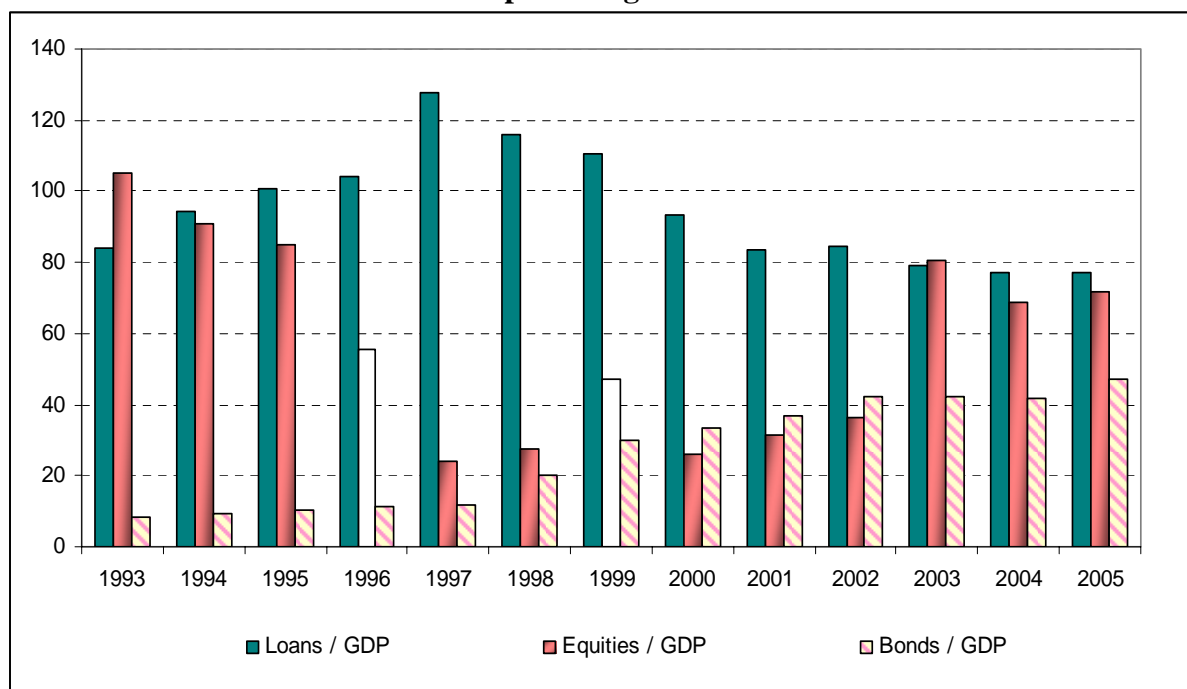
The development of the bond market in Thailand has essentially begun after the financial crisis in 1997. Prior to that, the banking sector played a dominant role of financial intermediary and the amount of bonds issued and circulated in the market was very small. As can be seen from Chart 1, the value of the Thai bond market to GDP in 1996 was a mere 11 percent whereas that of bank loans was 104 percent. At that time, neither the public nor the private sectors had incentive to issue debt securities due to nine consecutive years of fiscal surplus (1988 to 1996) and the fact that the private sector could borrow needed funds from commercial banks.

As a result of the 1997 crisis, the value of the stock market fell significantly while businesses faced difficulties in borrowing from commercial banks due to high level of non-performing loans (NPLs) in the banking system. The private sector's desire for an alternative source of funding coupled with the government's need to fund financial sector restructuring led to the growth in the Thai bond market. Consequently, the outstanding value of the bond market rose from 547 billion baht (12 percent of GDP) in 1997 to 3,367 billion baht (47 percent of GDP) in 2005.

## 2 The Structure of the Thai Bond Market

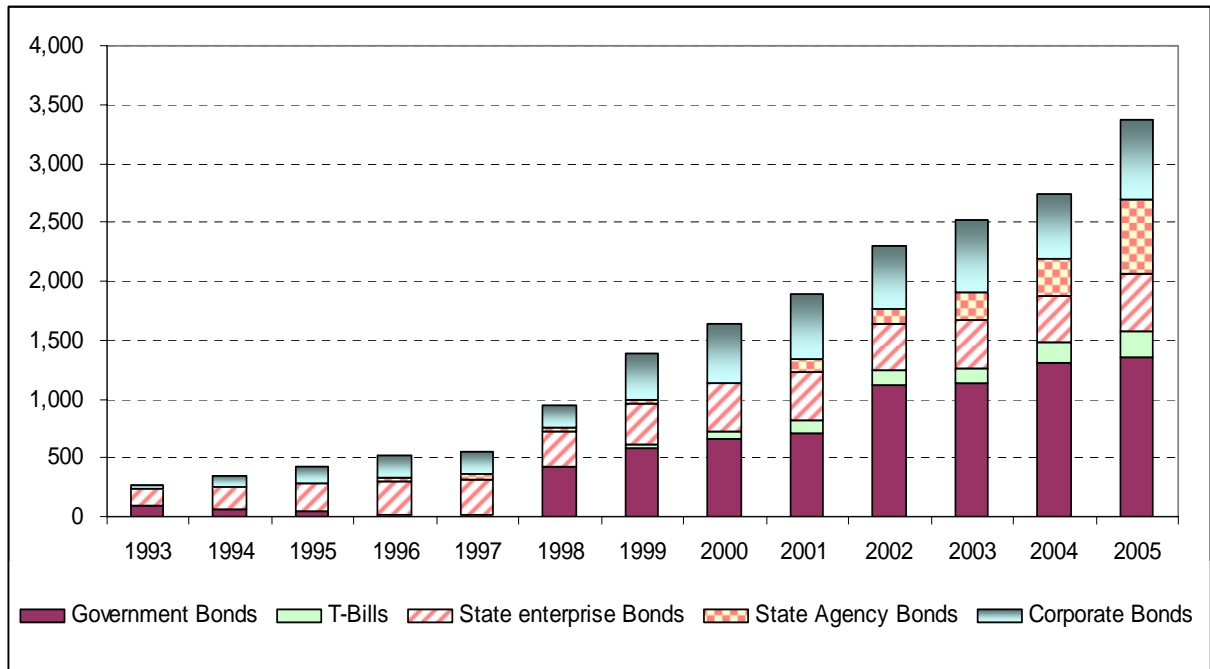
The growth in the size of the bond market could be attributed largely to the 8-time expansion in the outstanding value of government and state agency bonds, which are the majority of the market, while that of corporate bonds increased around 3-4 times during the period (Chart 2). At present, around 79 percent of the debt securities market comprises public sector debt securities while the remainder is corporate bonds (Chart 3).

**Chart 1 Size of financial markets as percentage to GDP**



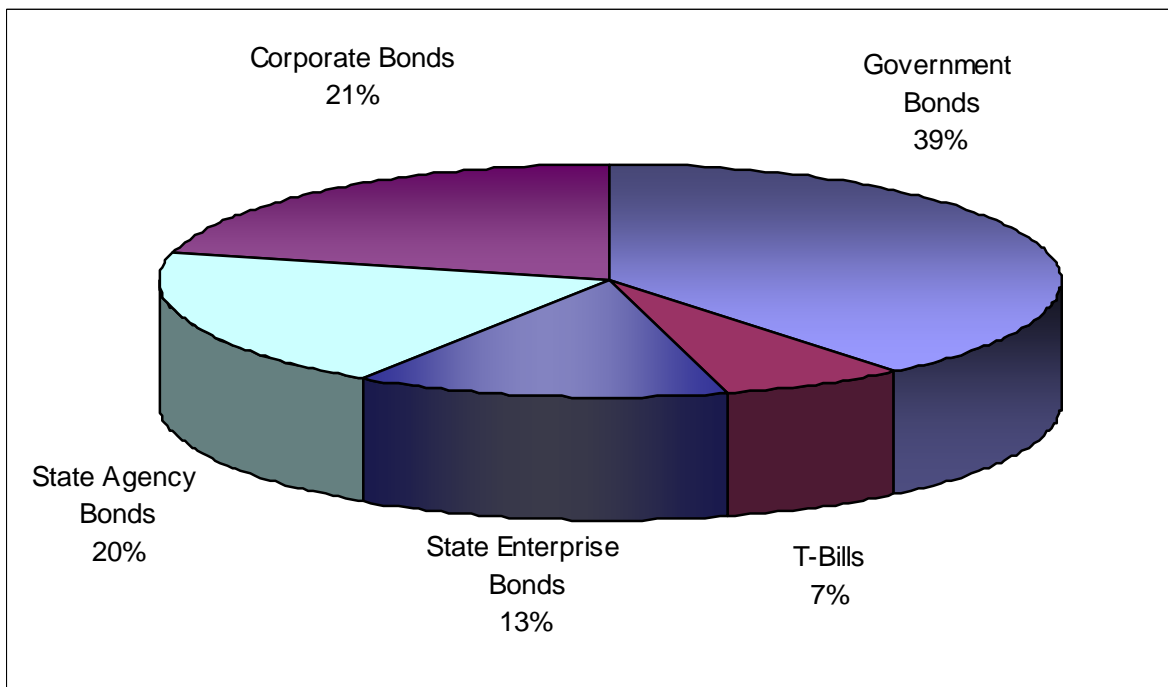
Source : The Thai Bond Market Association

**Chart 2 Outstanding value of domestic bonds (billion baht)**



Source : The Thai Bond Market Association

**Chart 3 Profile of domestic bonds, as of July 2006 (%)**



Source : The Thai Bond Market Association

## The Public Sector Bond Market

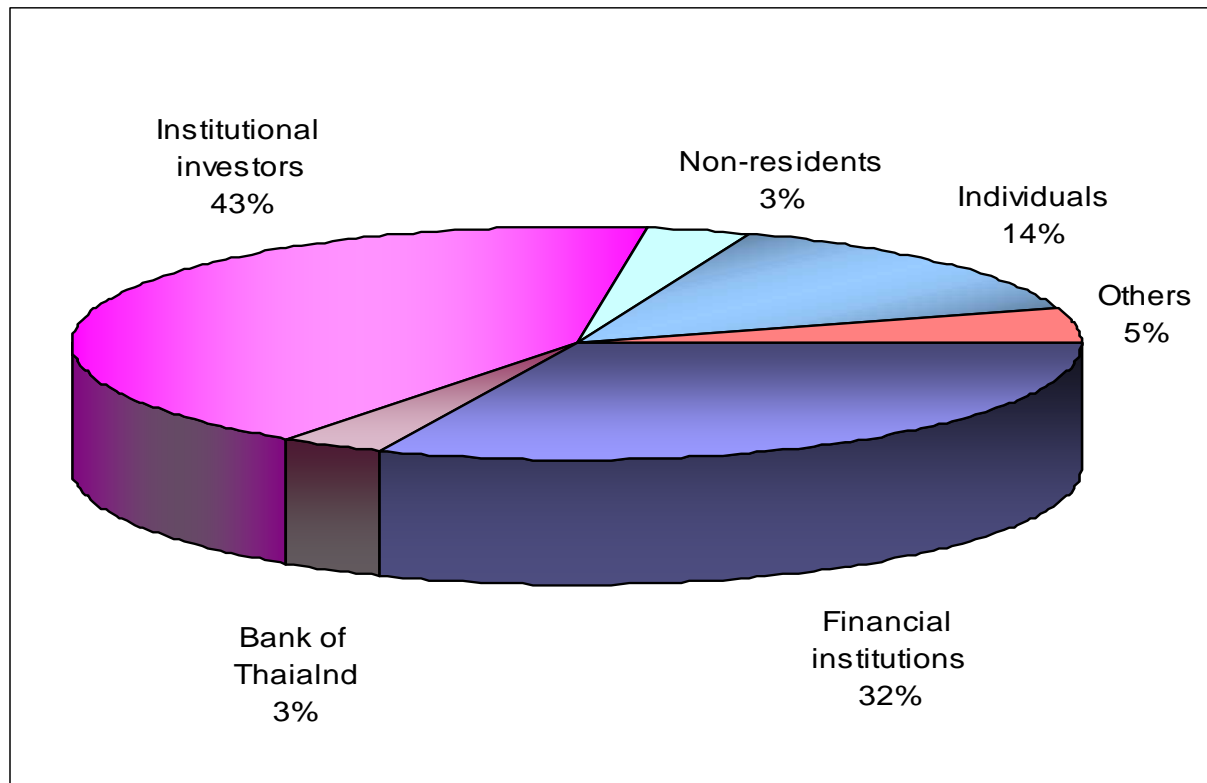
Public sector debt securities comprise 4 groups as follow:

- Treasury bills are short-term debt instruments with a maturity of less than one year and are sold on a discount basis.
- Government bonds are medium to long-term debt instruments issued by the Ministry of Finance (MoF) mainly to finance budget deficit, to fund financial sector restructuring, and to provide an alternative instrument for saving to households and non-profit organizations.
- State enterprise bonds are medium to long-term debt instruments issued by state-owned enterprises. They are generally guaranteed by the MoF.
- State agency bonds are debt instruments issued by the Bank of Thailand, Financial Institutions Development Fund, and Property Loan Management Organization.

Around half of the public sector debt securities are government bonds, whose tenors stretch across 3 to 20 years.

Institutional investors, which include the Government Pension Fund, the Social Security Fund, provident funds, mutual funds, and insurance companies, account for approximately 43 percent of the total public sector debt holding. Financial institutions also constitute a large proportion (32 percent), partly because surplus liquidity still remains in the financial system. (Chart 4).

**Chart 4 Holders of public sector debt, as of April 2006 (%)**



Source : The Bank of Thailand

## The Corporate Bond Market

As mentioned earlier, the 1997 crisis had jumpstarted the growth in corporate bond market due to the fact that banks had reduced lending after the crisis as they sought to rebuild capital and restructure their NPLs. Although the size of the corporate bond market has continuously risen since then, it is still small relative to the government bond issuance because a number of demand and supply factors impede liquidity and market development.

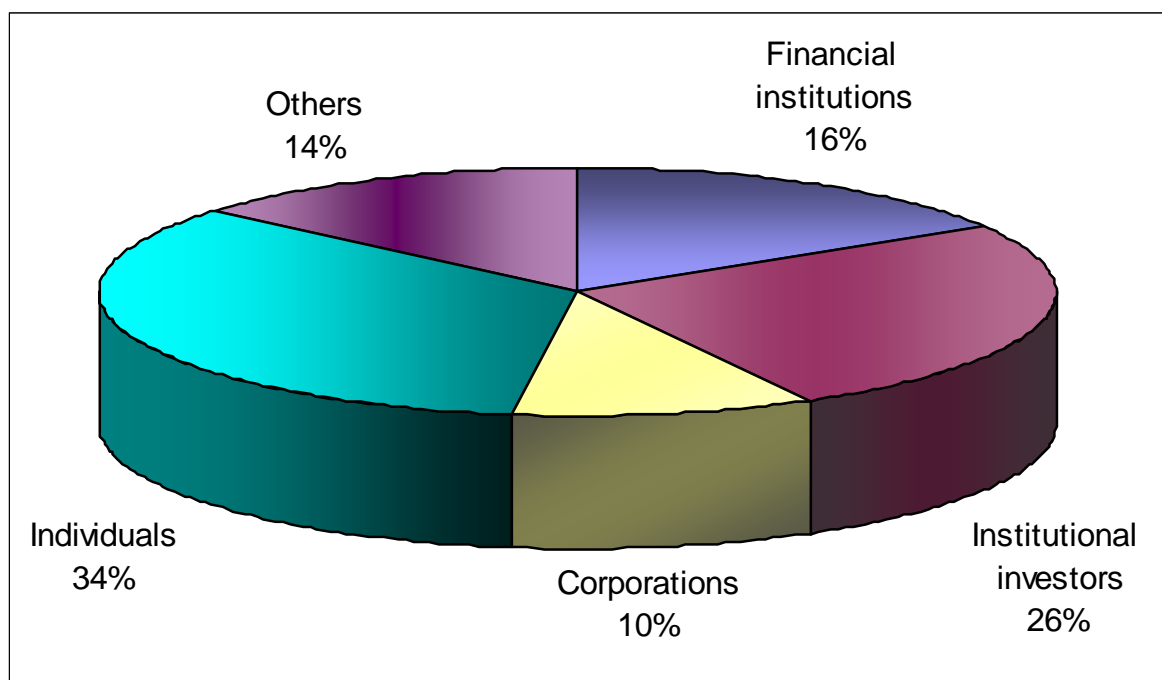
On the demand side, there have been limited interests from institutional investors such as mutual funds to invest in debt securities of firms with sub-investment grade credit standings. Also some institutional investors have been discouraged by their internal investment guidelines from investing in such instruments.

On the supply side, the number of large and good quality corporate issuers has been limited. The public disclosure and credit rating requirement for new issuance resulted in a higher all-in cost of funding relative to bank loans, especially for smaller issue sizes. The problem was further compounded by the fact that banks, which derived a large part of their profits from lending, were reluctant to underwrite corporate issues.

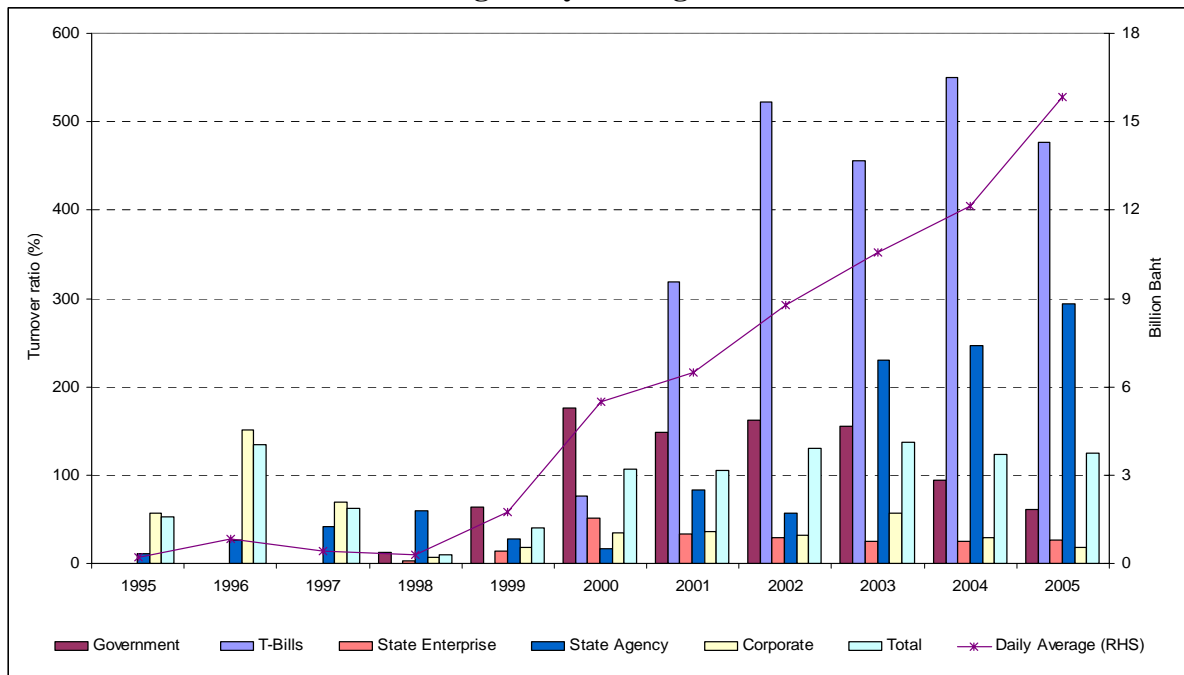
As a result, issuers in the Thai corporate bond market are those with reputable names and regular issuances due to high funding needs, such as those from the banking, communication, energy and transportation sectors. Moreover, new issues are usually offered to existing investors based on private placement basis and are usually held to maturity.

Investors in corporate bonds are mainly individuals as well as institutional investors, such as insurance companies, mutual funds, provident funds, the Government Pension Fund and the Social Security Fund. (Chart 5). High participation of retail investors have contributed to relatively low liquidity in this market.

**Chart 5 Holders of corporate bonds, as of June 2006 (%)**



Source : The Thai Bond Market Association

**Chart 6 Turnover ratios and average daily trading volume**

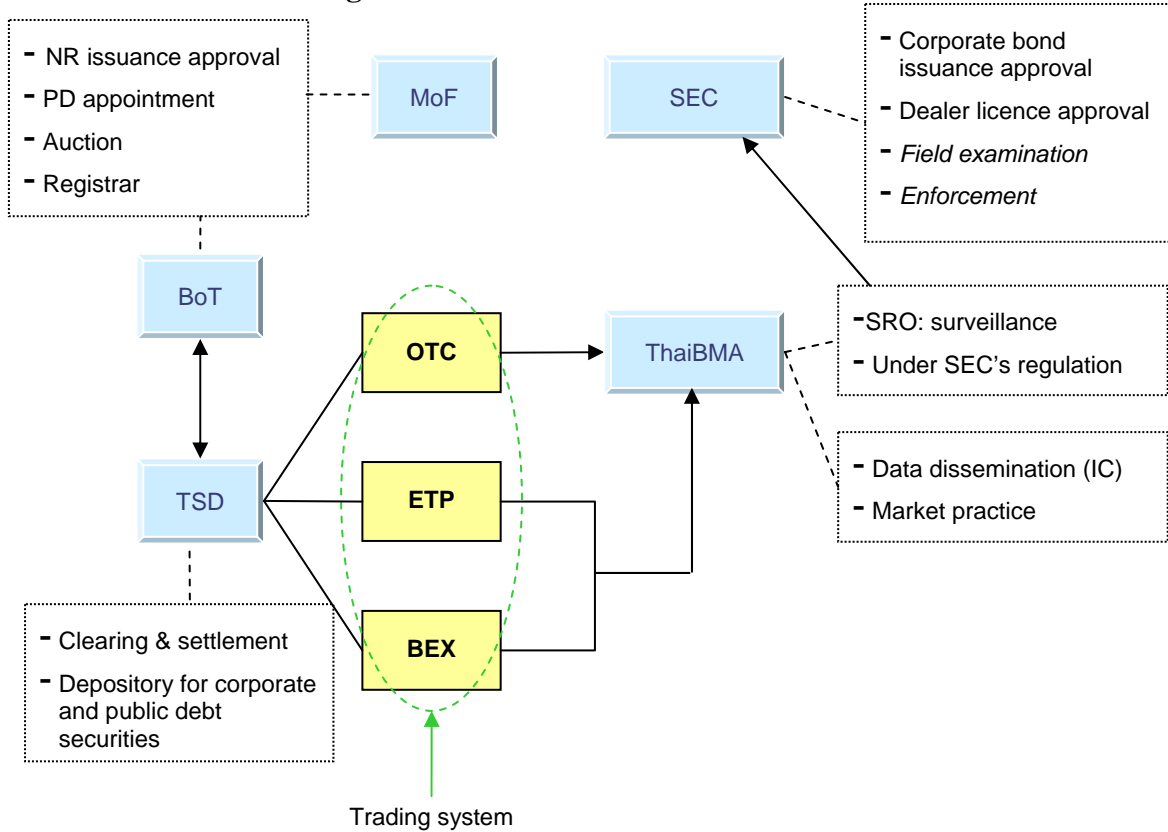
Source : The Thai Bond Market Association

### 3 Trading Activities

The growing supply of domestic bonds has given rise to a steady increase in the trading volume in the market. Average daily trading volume of the bond market rose from 300 million baht in 1998 to 30 billion baht in the third quarter of 2006. In the past few years, activities in the secondary market have become more focused on short-term, more liquid instruments such as T-bills and central bank bonds. This is partly because of the rising interest rate trend and higher demand from the money market mutual funds which were set up to serve investors' demand for short-term investments. Longer-term bonds exhibit lower turnover ratios as they are often held to maturity by investors, partly because supply is limited compared to demand.

### 4 Institutional Arrangements in the Thai Bond Market

Chart 7 depicts various public and private parties, who have important roles in the Thai bond market and have contributed to the development of the Thai bond market. The Ministry of Finance (MoF) issues government securities whereas the Bank of Thailand (BOT) performs fiscal agent and registrar functions. The Securities and Exchange Commission (SEC) is responsible for regulating and promoting capital market development. The Stock Exchange of Thailand (SET) operates the bond exchange (BEX) and the centralized electronic trading platform (ETP) called Fixed Income and Related Securities Trading system (FIRSTs). The Thailand Securities Depository (TSD) plays the role of central securities depository as well as clearing and settlement agent, while the Thai Bond Market Association (ThaiBMA) has been established as the self-regulatory organization (SRO) and information center.

**Chart 7 Institutional arrangements in the Thai bond market***Abbreviations*

MoF	Ministry of Finance
BoT	Bank of Thailand
TSD	Thailand Securities Depository
OTC	Over-the-counter
ETP	Electronic trading platform
BEX	Bond Electronic Exchange
ThaiBMA	Thai Bond Market Association
SEC	Securities and Exchange Commission
SRO	self-regulatory organisation

**5 Bond Market Development Policies and Efforts**

Since the crisis, Thai authorities have put a great deal of effort into developing the domestic bond market. In 1998, the “Domestic Bond Market Development Steering Committee” chaired by the Director General of the MoF, was established to promote the development of the domestic bond market. In January 2005, this committee was reorganised to enhance its functional efficiency, and is currently chaired by the Finance Minister and comprises high-level representatives from both the public and private sectors. The aim of this committee is to

promote choices of funding sources and investment alternatives in the market, which would also lead to better distribution among bank financing, equity financing through the stock market, and debt financing through the domestic bond market. Under the Steering Committee, there are 5 working groups responsible for 5 areas of development i.e. primary market, secondary market, infrastructure, taxation and bond market information & human resources development.

The BOT has been entrusted with the responsibility of further developing the secondary bond market. To meet this challenge, the BOT, in collaboration with other authorities and market participants, has mapped out a multi-year strategy and a plan of action for secondary bond market development. The plan of action focuses on:

- (i) improving efficiency and reducing transaction costs in the bond market;
- (ii) increasing market players' ability to lend and borrow securities;
- (iii) enhancing participants' ability to hedge risks;
- (iv) streamlining and enhancing the function of primary dealers in their role as market-makers;
- (v) broadening the investor and issuer base by increasing market access for both domestic and foreign players.

Despite the rapid growth in the government securities market during the past decade, the Thai corporate bond market has been expanding at a much slower pace. However, it is believed that an effective government bond market lays the foundation for the development of the corporate bond market. Experiences in developed markets generally show that the following components are helpful in the development of an effective government bond market:

- (i) sufficient supply and regular issuance;
- (ii) a well-functioning primary dealer system;
- (iii) a vibrant hedging market and active liquidity enhancement facilities.

Therefore, earlier efforts have been largely geared towards developing an effective government bond market.

## **6 Measures Undertaken to Develop the Market**

### **Building a benchmark yield curve**

A benchmark yield curve is a key building block to develop a liquid bond market as it is the basis for pricing other fixed income instruments. Therefore, Thailand's MoF has been issuing bonds across maturities ranging from 1 to 20 years to build a government bond yield curve and has been making efforts to ensure regular issuance of government bonds to maintain the benchmark yield curve.

Primary dealers are assigned to submit the end of day indicative quotes for government bonds to the ThaiBMA for the construction of the government bond yield curve which is publicly available on a daily basis on the ThaiBMA's website.

### **Announcing government debt issuance calendar**

The MoF, in collaboration and consultation with the BOT, has announced advance issuance programs for government bonds and Treasury bills. The aim is announcing as far ahead as possible (at present, one quarter ahead) and committing as closely as possible to the issuance calendar in order to enhance the continuity, predictability, and transparency of bond issuance.

### **Developing an electronic bidding process**

In 2003, the BOT, as the fiscal agent and registrar of the MoF, developed an online bidding process for auctions of government securities instead of receiving bids on paper. The online bidding system helped reduce turnaround time for dealers and traders, as well as enhanced efficient communication and trading in the secondary market.

### **Introducing the non-competitive bidding system for government bond auction**

To facilitate investors who are not familiar with the debt market, the MoF introduced the non-competitive bidding (NCB) system in 2002. The NCB system allows a certain group of investors, such as non-profit organizations, to place their orders in an amount of 4 – 40 million baht. Their effective yield will be equal to the weighted average accepted yield of the competitive bids. The NCB system results in a wider investor base, particularly small institutional investors.

### **Allowing foreign entities to issue baht bonds in Thailand**

Since 2004, the MoF has allowed international financial institutions and foreign governments to issue baht-denominated bonds in Thailand, with the intention of widening investment choices and attracting more overseas investors. Later in April 2006, the scope of issuers has been expanded to include foreign companies as well. So far, baht bonds have been issued by the Asian Development Bank (ADB) and the Japan Bank for International Cooperation (JBIC).

### **Establishing a primary dealer system**

The development of a primary dealer system is aimed at supporting the auction process in the primary market as well as enhancing liquidity in the secondary market and facilitating the conduct of open market operations. The BOT has appointed a number of commercial banks which are active market participants as primary dealers. These institutions are required to act as market makers and provide 2-way firm quotations for certain benchmark issues.

Institutions wishing to qualify for selection as primary dealers have to meet a number of requirements, for instance, regular participation in government securities auction, appropriate level of secondary market trading, ability to provide two-way firm price quotation.

To facilitate primary dealers to fulfill their obligation on two-way firm price quotation, the Bank of Thailand provides a privilege to primary dealers to adjust their bond portfolio through the Securities Position Adjustment facility (SPAf). The SPAf allows each primary dealer to borrow benchmark bonds at a total amount of not more than 500 million baht and for a period of not more than 30 days.

### **Developing the private repurchase market**

The development of a private repurchase market is an important step in improving market infrastructure. The private repurchase market could provide a link between money market and bond market. It is also a tool for market participants to hedge their position and manage liquidity more efficiently.

At present, financial institutions manage their liquidity through interbank clean loan, foreign exchange swaps and the BOT-run repurchase market (BOT RP). However, the BOT RP market where BOT acts as the matchmaker and central counterparty for lenders and borrowers is not priced accurately as the interest rate charged for each tenor reflects central bank's credit risk rather than credit risks of genuine counterparties. Due to this fact, the BOT has been trying to promote the development of the private repurchase market and encouraging the signing of the master repurchase agreement among market participants. Also, the BOT has been phasing out of the current BOT RP market by closing the morning session and conducts monetary operations through bilateral repurchase transactions instead. There is also a plan to close down the BOT RP market in the future along with the open market operation reform.

### **Encouraging corporate bond issuance**

As the capital market regulator, the Securities and Exchange Commission (SEC) has been making efforts in pushing through regulations for securitization and streamlining the process for corporate debt securities issuance. For example, the SEC filing and credit rating have been waived for debt issues with an offer amount not exceeding 100 million baht and with transfer limit of not more than 10 holders. Furthermore, in July this year, the SEC decided to expand the shelf filing to include investment grade long-term bonds as well as to allow the credit rating to be assessed based on either the issue, issuer, or guarantor except for subordinated bond for which issuer rating is not allowed.

### **Broadening the investor base**

Presently, major bondholders are financial institutions and local institutional investors, in particular insurance companies. Retail investors and foreign investors have much smaller participation in the bond market. Such small range of investors tend to give rise to a one-way market. A more diverse set of market players was considered beneficial to help eliminate the uniform direction and provide greater stability to the market.

In this regard, the authorities have been trying to educate retail investors about the bond market and investment in bonds as an investment alternative to traditional investment vehicles such as bank deposits and stock purchase. In addition, the MoF periodically issues saving bonds as an alternative investment for retail investors, while non-resident investors are

granted tax exemption for returns from investment in government and non-privatized SOE debt securities.

### **Developing hedging instruments**

Hedging instrument is a key factor for a liquid market. Responsible organizations have taken crucial steps to develop and promote transactions which can be used as hedging tools, such as interest rate swaps (IRS), short selling of bonds, as well as securities borrowing and lending (SBL). Furthermore, the enactment of the Derivatives Market Act in 2004 legally endorsed the establishment of the futures exchange market. The interest rate futures contract and the bond futures contract are expected to be listed on the exchange in the future.

### **Centralizing the securities depository and clearing and settlement system**

Since 15 May 2006, the depository of public debt securities has been migrated from the BOT to the Thailand Securities Depository (TSD). Prior to that, the clearing of government bonds has been done at the BOT whereas for corporate bonds at the TSD and other custodians. The centralization of the securities depository and the clearing and settlement system will help improve efficiency and reduce the cost of securities clearing and settlement. Also the centralization at the TSD paves the way for possible regional clearing and settlement linkage in the future.

### **Establishing bond lending unit and collateral management unit**

The bond lending unit at the TSD expected to be established this year will promote the securities borrowing and lending (SBL) activities which is essential for short sale transactions. The setting up of the collateral management unit on 15 May 2006, has also allowed TSD to carry out the collateral management function to support collateralized transactions, such as private repurchase and derivatives transactions. The bond lending unit and collateral management unit should help lower transaction costs of counterparties, and result in higher bond trading activities. These services should help facilitate liquidity in the secondary market trading.

### **Designating the Thai Bond Market Association (ThaiBMA) as an SRO and information center**

The ThaiBMA has been entrusted with the role of the self-regulatory organization and information center for the bond market. It plays key functional roles in four main areas as follows:

- (a) Self-regulatory organization (SRO) – Overseeing and monitoring the conduct of its members in order to ensure fairness and efficiency in debt securities trading.
- (b) Bond information center and pricing agency – Disseminating information in both the primary and secondary markets regarding trading information, bond features, reference yields, relevant market news and regulatory updates, as well as providing model yields and pricing data for marking-to-market purpose which is useful in the case of illiquid debts securities.

- (c) Market convention and standards – Enhancing standards within the marketplace through extensive consultation with market participants; for instance, symbols for bond and short-term debt securities, formula for price / yield calculation.
- (d) Market development and education – Developing and implementing several key elements for market development; such as, yield curve, bond index, credit spread, bond portfolio analysis, and value-at-risk (VaR). In addition, seminars and training programs for market participants and the general public are provided.

## **7 Conclusion**

Developing a well-functioning bond market is not an easy task. Much progress has been made in Thailand, but many important issues still need to be tackled. Relevant authorities have mutually and constantly put their efforts in enhancing and supporting the bond market development. Corporate bonds including securitized bonds have been viewed as further steps in developing the market. Although the process to widen and deepen the Thai bond market may take place over a number of years, reforms and measures imposed by authorities will help lay the foundation for the strong and diversified financial markets that will underpin sustained economic stability.