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FINANCIAL SECTOR ASSESSMENT PROGRAM

THAILAND

TECHNICAL NOTE

FIXED INCOME MARKETS

APRIL 2008

INTERNATIONAL MONETARY FUND MONETARY AND
CAPITAL MARKETS DEPARTMENT

THE WORLD BANK
FINANCIAL AND PRIVATE SECTOR DEVELOPMENT
VICE PRESIDENCY EAST ASIA AND PACIFIC
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Contents Page

GLOSSARY

ADB	Asian Development Bank
BEX	Bond Electronic Exchange
BOT	Bank of Thailand
FIDF	Financial Institutions Development Fund
FIRSTS	Fixed Income and Related Trading System
FX	Foreign Exchange
GHB	Government Housing Bank
GMRA	Global Mater Repurchase Agreement
GSB	Government Savings Bond
IRS	Interest Rate Swaps
JBIC	Japan Bank for International Cooperation
MOF	Ministry of Finance
NAV	Net Asset Value
OTC	Over-the-Counter
PDA	Public Debt Act
PD	Primary Dealer
PDMO	Public Debt Management Office
RFQ	Request for Quotes
SBT	Specific Business Tax
SEC	Securities and Exchange Commission
SET	Stock Exchange of Thailand
SOE	State Owned Enterprise
SPAf	Security Position Adjustment Facility
SRO	Self-Regulatory Organizations
Tbill	Treasury bill
TBMA	Thai Bond Market Association
TFEX	Thai Futures Exchange
TSD	Thailand Securities Depository CO., Ltd.

Executive Summary

The debt market in Thailand has made important strides since the financial crisis of 1997. The Thai government has made significant progress in building an orderly yield curve and is beginning to establish some benchmarks. However, more needs to be done if the government is to achieve its objective of enhancing liquidity in the market. In particular, liquidity in the secondary market would be enhanced by reducing the frequency of auctions, while increasing the size of each individual offering. Such a change will require primary dealers to change their mode of operation from effectively a "broking" operation to the provision of greater underwriting and market making services; consequently a review of the primary dealer system is warranted. Nevertheless, prospects for development of the government securities market will be constrained overall by the likely limited financing need going forward, unless the authorities can secure some additional flexibility to restructure the existing portfolio or otherwise establish more meaningful benchmarks.

The corporate debt market suffers from too few issuers of corporate debt and too little diversity of debt offerings. This reflects, in part the limited corporate need for long-term financing, the ready availability of alternative financing by commercial banks at competitive rates, and regulatory policies that emphasize investor protection by imposing substantial limitations on the ability of institutional investors to purchase anything but investment grade debt, which effectively precludes issuance of below investment grade debt.

Thailand should begin an orderly transition from merit-based regulation of corporate issuers and institutional investors to a disclosure-based regulatory system that opens the debt market to a larger and more diverse pool of corporations and allows institutional investors with the freedom to make their own decisions on what investments to make, based upon informed assessments of risk and return, provided that these decisions are fully disclosed to investors.

A series of regulatory changes should be considered including removing the limitations on below investment grade debt offerings, expanding the size of private placement offerings and reducing the regulatory burdens on issuers of short-term commercial paper. Comparable regulatory relief for investors should be considered such as permitting the creation of mutual funds that invest in high yield securities, reconsidering the definition of an illiquid security and/or reducing the restrictions on the investment in illiquid securities, permitting institutions greater flexibility in engaging in hedging strategies, permitting institutions to invest in offshore offerings and allowing institutions to resell private placement securities in the secondary market.

Greater liquidity in the secondary debt market can best be achieved by increasing the supply of debt issues and providing institutions with greater freedom to buy and sell. The secondary debt market would also benefit if long-standing limitations on the number of securities firms

were discarded in order to promote greater competition among financial services intermediaries.

In addition, the ability of financial intermediaries to become more active liquidity providers in the secondary market would be enhanced by the provision of more appropriate derivatives products to hedge interest rate risk. Moving forward with introducing the anticipated futures contract on TFEX will be a significant step in meeting that need.

FIXED INCOME MARKETS IN THAILAND[1]

1. This note reviews the functioning of the fixed income markets, particularly the bond markets, in Thailand. Section I provides some brief background; Section II discusses the primary markets for public sector and corporate debt instruments; Section III discusses the functioning of the secondary bond markets; Section IV the investor base; while section V discusses the regulatory framework. Finally, Section VI summarizes the key recommendations and concludes.

I. BACKGROUND

2. Table 1 outlines some key facts about the bond markets in Thailand relative to other countries in the region. Within this sample, Thailand is the fourth largest market; however, as indicated by its relative turnover ratio,[2] it is one of the most illiquid.

Table 1. Thailand: Regional Bond Market Indicators, End-2006

	% of GDP			In USD billions			Turnover ratio		
	Govt	Corp	Total	Govt	Corp	Total	Govt	Corp	Total
Thailand*	***38***	***19***	***58***	***75***	***37***	***112***	***1.3***	***0.1***	***1.1***
China	31	16	46	786	398	1,184	1.4	0.8	1.2
Hong Kong	9	42	51	17	79	96	68.2	0.2	12.1
Indonesia	13	2	15	47	7	53	0.8	0.3	0.8
Korea**	54	56	109	469	90	959	2.6	0.5	1.6
Malaysia	41	41	83	61	60	121	1.9	0.6	1.3
Philippines	37		37	44		44			
Singapore	42	32	74	56	43	99	2.5	-	1.4
Vietnam	8	1	9	5	0	5			

Source: Asian Bonds Online.
* The total for corporate debt securities also includes bonds issued by state owned enterprises.
** Data on turnover ratio is for Dec-2005.

3. In terms of the overall composition of the bond market, public debt securities account for most of the bonds, with the residual comprising corporate bonds. Bonds issued by foreign issuers are insignificant (Table 2). In terms of secondary market activity, Treasury bills are by far the most liquid debt security, followed by Bank of Thailand (BOT) bills and BOT bonds, which are also relatively short-term.

[1] Prepared by Allison Holland, IMF and Jonathan Katz, World Bank consultant.

[2] Note turnover of Treasury bills has been included in the total turnover ratio for Government bonds for Thailand.

Table 2. Thailand: Thai Bond Market, End-2006

	Amount outstanding (bn)	% of Total Market	Trading Value	Turnover ratio
Government Bonds	1,469	37%	631	0.42
- Loan bonds	*1,406*	*26%*	*628*	*0.60*
- Savings bonds	*423*	*11%*	*4*	*0.01*
Treasury Bills	228	6%	1,500	6.58
State Enterprise Bonds	491	12%	84	0.17
- Guaranteed	*325*	*8%*	*52*	*0.16*
- Non-guaranteed	*168*	*4%*	*32*	*0.19*
BOT Securities	897	22%	1,968	2.19
- BOT bills	*586*	*15%*	*1,445*	*2.47*
- BOT bonds	*311*	*8%*	*479*	*1.54*
Sub-total Public Debt	**3,127**	**77%**	**4,183**	**1.34**
Corporate Debt Securities	846	23%	93	0.10
Foreign Issues	16	0%	2	0.10
Grand Total	**4,085**		**4,277**	**1.05**
Memo: Financing Transactions			2,678	

Source: TBMA

4. An over-riding factor impeding the development of more liquid fixed income markets in Thailand is the relatively limited demand for capital. This is true of Thai corporations, where private sector investment continues to be weak, but also of the public sector given the fiscal policy stance. Until the prospects for investment improve, this limited demand for capital, which is a key determinant in the supply of debt, coupled with the ample liquidity in the banking system, will continue to constrain activity in both the primary and secondary markets. Nevertheless, there are a number of structural and regulatory impediments that should be addressed now, which will enhance the positive impact of issuance, however limited, and which will ensure that the Thai market is well positioned to address the future needs of a growing economy.

II. The Primary Debt Market

5. The primary fixed income markets comprise the primary market for public debt securities and the corporate debt market.

A. Public Debt Instruments

6. The public debt market is dominated by government securities. Of the total B 3,085 billion outstanding of public debt securities, Treasury bills and government bonds represent 55 percent. These instruments are issued by the Public Debt Management Office (PDMO) in line with the provisions of the Public Debt Act (PDA). The PDA allows debt to

be raised for the following purposes: to finance (i) the budget deficit; (ii) approved social and economic spending; (iii) debt restructuring; and (iv) onlending.[3]

7. There are two types of government bonds: loan bonds and savings bonds. Loan bonds are standard wholesale government bonds, issued at fixed rates at tenors out to 20 years maturity. Despite recent efforts to build some market benchmarks, which include the commitment to create and maintain benchmarks of at least B 40 billion at 7 and 10 years over the period 2006–2010, the current stock of government loan bonds remains fragmented. As at end-December 2006, there were 30 different issues of loan bonds outstanding, with an average size of B 35 billion. At that time, only 3 bonds exceeded B 40 billion in size, and 7 were less than B 30 billion; market sources indicate that the desired size of a benchmark would be at least B 50 billion.

8. Government savings bonds (GSBs) are effectively a retail product, sold directly to individuals in small denominations. Of the total stock of government securities, savings bonds make up around 25 percent. One bond—issued in 2002 to restructure some of the debt of the Financial Institutions Development Fund (FIDF)—accounts for almost half the total outstanding.[4] This will redeem in 2012. There are also four other savings bonds of significant size, ranging from B 26 billion to B 54 billion, maturing in 2007, 2009, 2011 and 2014. As new issues of savings bonds tend to be much smaller, typically only B 500 million, their proportion may drop significantly. GSBs are currently sold with a tenor of 3 years.

9. Treasury bills are issued at one, three and six month maturities. At end-2006, they made up 13 percent of the portfolio of government securities. However, the PDMO intends to refinance a significant proportion of bills—around B 120 billion—with loan bonds in the current fiscal year (FY2007),[5] which will reduce their proportion considerably.

10. The planned primary issuance program for FY 2007, envisages gross issuance of government bonds of around B 365 billion. Preliminary indications for FY 2008, indicates that gross issuance of bonds will decline to B 222 billion. At this level of issuance, the PDMO will only be able to support 4 new benchmark bonds a year. Coupled with the decline of the Treasury Bill (Tbill) stock and the anticipated strength of the budgetary position, this

[3] Debt restructuring refers to the refinancing of debt for the purposes of minimizing FX risk or smoothing the profile of debt repayments. Onlending refers to raising financing in the name of the government and then onlending it to approved agencies, such as local governments or state enterprises; currently onlending is restricted to external debt.

[4] The SB129A redeems on September 12, 2009. The value outstanding is B 206 billion.

[5] October 2006 to September 2007.

suggests that the PDMO's activity in the primary market could drop significantly in the medium-term unless new debt creating flows can be generated (e.g., through active debt exchanges, expanding the scope of onlending to domestic debt, etc.).[6]

11. Complementing the PDMO issuance, the BOT issues ultra-short central bank bills and bonds for monetary policy purposes. As Figure 1 indicates, the issuance of BOT bonds far outstrips that of government bonds. As at end-Dec 2006, there were B 586 billion BOT bills and B 311 of BOT bonds; bills have maturities of less than 15 days and fixed rate bonds are issued at 1 and 2 years maturity, with new issues typically between B 50–70 billion in size. Additionally, in March 2007, the BOT introduced a 3-year floating rate note.

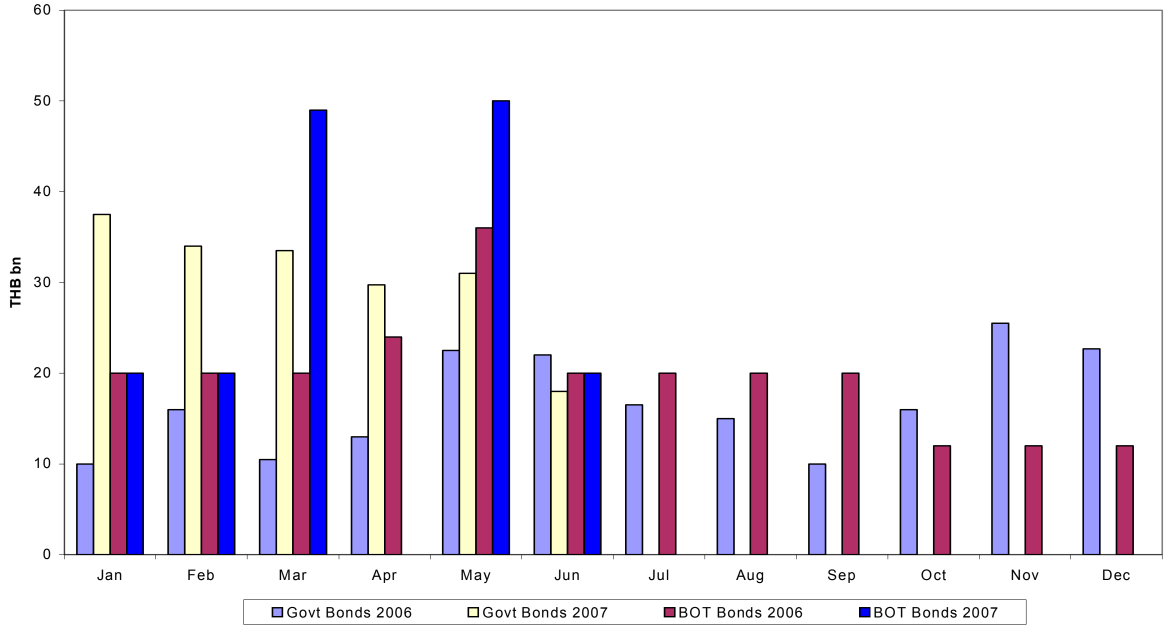
12. Finally, there are a number of State Owned Enterprise (SOEs) that issue bonds, most of which are government guaranteed. The Government Housing Bank is the largest of these issuers; as of end-Dec 2006, GHB had B 85.5 billion of bonds outstanding, 17 percent of this market segment. All GHB issues, barring one, are government guaranteed.

13. Note, these figures exclude securities issued by FIDF to meet its ongoing liquidity needs—these bonds are not sold outright but are solely used as collateral to support rolling repo transactions. The government has, over time, fiscalised the FIDF losses by issuing government securities and injecting the proceeds into FIDF, reducing FIDF's need to issue in its own name. These capital injections are based on a regular assessment of FIDF's expected loss, taking account of an updated valuation of its assets.

14. All retail savings bonds are issued in scrip (or certificated) form, while wholesale instruments are issued in scripless (or dematerialised) form, but with an option to be held in scrip (or certificated) form. As of end-April 2007, 31 percent of stock was held in scrip form. One reason that so much is held in this form is that securities can be pledged as collateral to support loan applications, electrical consumption applications, used as bail, or by insurance companies as legal reserves pledged to the Department of Insurance. Currently, the legal provisions of the Civil and Commercial Code require collateral to be pledged in the form of scrip securities. However, related Acts are being reviewed in order to allow for scripless securities to be pledged as collateral to a greater extent. Investors may also choose to hold their securities in scrip form to avoid the custody or depository costs.

[6] Although issuance of domestic debt could increase by around B 60 billion over FY 2008 and FY 2009 to meet the financing of the planned mass transit investment. This is based on an assumption that JBIC will provide a loan to meet the remaining cost to the central government – anticipated to be around B 90 billion.

Figure 1. Thailand: Issuance of Government and BOT Bonds 2006 and 2007



Source: BOT.

B. Primary Market for Public Debt

15. With the exception of the GSBs, which are sold to retail investors at a fixed price and distributed through one of the commercial banks, both the PDMO and BOT use multiple price auctions to issue their debt securities. Competitive bids can be submitted by all banks and other financial institutions, as well as the Government Pension Fund, the Social Security Office, life insurance companies, provident funds, and co-operatives. These entities are also eligible to submit noncompetitive bids; however, if they choose to do so, they forfeit the right to submit a competitive bid. Foundations, charities and other nonprofit organizations can also submit noncompetitive bids. Twenty percent of the total stock on offer is reserved for noncompetitive bids; however, this is rarely used. The PDMO auctions Tbills on Mondays and bonds on Wednesdays. Auctions of central bank bonds can be held on Tuesdays, Thursdays and Fridays.

16. Typically the PDMO auctions a bond every week, with auctions of the 7-year benchmark in the second week of the month and of the 10-year bond in the fourth week of the month. Often two bonds are auctioned in the same day. Typical auction size is small, at only around B 5 billion. This contrasts with the BOT approach which up to May had 3 auctions of bonds a month of a typical size of B 20–30 billion; under the new schedule, announced in May, BOT will only have on average 1 bond auction a month.

17. Both PDMO and BOT pre-announce their schedule of auctions. The PDMO announces its calendar of bond auctions at the end of the quarter for the forthcoming quarter; and its calendar of Tbill auctions two weeks in advance. Similarly, the BOT announces its auction schedule a month in advance.

18. Despite the improvements in the commitment to an auction schedule, issuance of government loan bonds remains highly cyclical and somewhat uncertain (Figure 2). This reflects the fact that PDMO issuance is tied closely to government cash needs. For example, in the last quarter of FY 2007, the PDMO has cancelled all further auctions of the 2024 bond, only maintaining issuance of the 7- and 10-year benchmarks in line with its earlier commitment. In the absence of more active cash management, and perhaps a more aggressive use of Treasury bills as part of cash management, the uncertainty surrounding predicting these cash needs reduces the PDMO's ability to be fully transparent about its issuance calendar. Market participants indicate that while they can adjust for gaps in the issuance schedule, more certainty and predictability would be welcome.

19. The PDMO acts as the issuing agent for SOEs. Again, these bonds are sold through an auction; however, it is a paper based, uniform price auction, with single bids submitted by the dealers by hand. The size of these issues is generally small—typically only B 1–2 billion—and is typically allocated to a single bidder.

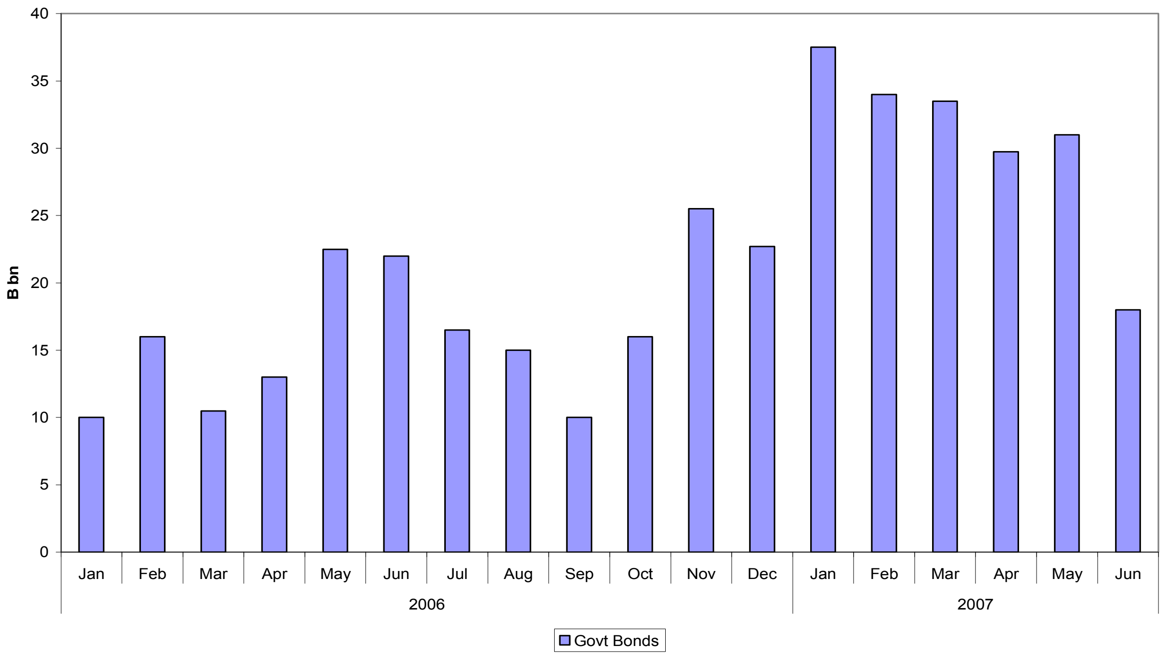
C. The Primary Dealer Function

20. In common with many countries, the Thai authorities have established a system of primary dealers (PDs).[7] Currently, the BOT manages the system, reflecting the fact that PDs were first appointed to be the BOT's counterparties in open market operations. There are currently nine PDs; all nine are banks as securities companies do not meet the capital requirements. As the roles and responsibilities of the PDs have expanded, particularly with respect to the requirement to provide liquidity in the government securities market, the PDMO is taking a more active role in the system. In brief, the principal responsibilities of PDs are: to participate in the government securities auctions and the BOT's OMO outright sales; to make markets in the secondary markets for government securities; and to submit reference yields on government securities to ThaiBMA at the end of each day. The principal benefits are: the right to participate in meetings with the authorities; the right to be the BOT's

[7] In fact there are two sets of (overlapping) primary dealers – one set for outright transaction and one for bilateral repo transactions. It is the first set we focus on here; the second are used as the BOT's principal counterparties for monetary policy implementation. This is similar to the situation in many countries where the primary dealers in the government bond market may be different, although overlap with, the central bank's counterparties for open market operations.

counterparty in the secondary market for government securities; and access to the Security Position Adjustment Facility (SPAF).

Figure 2. Thailand: Monthly Issuance of Government Bonds



Source: BOT.

21. However, the current framework does not appear to be effective, particularly in terms of providing liquidity in the secondary market. In terms of the secondary market, PDs accounted for only 37 percent of activity in the last year.[8] This reflects two factors: (i) dealers do not maintain large trading books (sources report that most of their bonds are held in their "held-to-maturity" portfolio);[9] and (ii) given the frequency of auctions, it is essentially a "broked" market with investors securing stock in the primary auction rather than accessing the secondary market. Here PDs will take account of client bids, typically those of mutual funds, when submitting bids in the auction.[10] Since there is an auction almost every week,

[8] Based on figures provided by the PDMO.

[9] One source indicated that they only typically held B 100 million of the "on-the-run" securities on their trading book; this would only cover 4–5 typical trades.

[10] Where institutions do not have direct access to the auction, PDs should submit their bid in the price and quantity indicated by the client—effectively acting as a broker. The benefit for the PD is access to information

(continued)

fund managers can manage cash flow and invest new funds by purchasing in the primary offering. Reducing the frequency of auctions would change the dynamics of the market considerably and would generate a need for more meaningful market making services to be provided. This should spur a review of the PD framework to ensure that it is "fit for purpose."

22. Before determining the appropriate mix of benefits and obligations, the authorities should be very clear about what they are trying to achieve. For example, in 2003, the Brazilian National Treasury jointly with the Central Bank reviewed the primary dealer framework to align it more closely with a desire to build a more liquid market. At that time, they introduced a "second-turn" or "green shoe option" which gives PDs the option to acquire additional stock following an auction, at the clearing price of the auction. Each PD's access to this option is determined on the basis of their performance in the primary and secondary markets. The authorities report that this change in the PD system has had the desired impact on behavior in the secondary market.

23. In terms of redefining the market making requirements, the PDMO could consider adopting the approach common in many European government bond markets, where the authorities specify the trade size and quote spread that the PDs have to meet. However, changing the frequency of auction will change the risk dynamics of the market considerably, and the current level of liquidity may not be a good indicator of the extent of the scope for improvement. Consequently, at this stage it would be difficult to determine what an appropriate spread might be. Instead, the PDMO might want to consider maintaining a general requirement to provide firm two-way quotes to clients in the benchmark stocks but ensuring that competition and the PDs' incentive structure is such that the "normal" spread emerges in the market.[11]

24. It would be appropriate to match any tightening of market making obligations to an improved set of benefits. Typically, market making obligations would be accompanied by the exclusive right to submit bids in the auctions, be the authorities' counterparty in any

on order-flow, which can inform and benefit their own bidding strategy. Note market sources indicated some instances where client bids were effectively adjusted by the PD. For example, even if a client had bid above the cut-off price for the auction, the dealer did not necessarily allocate the full quantity of their bid. If this is a common phenomenon, it would be of grave concern and would effectively constitute an abuse of their privileged position.

[11] In addition, the current electronic trading system used in the wholesale market—the FIRSTS—does not appear to be sufficiently robust or fast to support the implementation of such an obligation.

secondary market operations, and participate in meetings with the authorities.[12] In addition, other incentives such as access to a "green-shoe option," a noncompetitive bidding facility or direct payment of fees could be considered.[13] Such benefits could be the principal mechanism to incentivise the provision of market-making services in the secondary market. For example, the PDMO could instead allocate, say, 10 percent of the amount currently available for general noncompetitive bids for the PDs. Access to this pot could be determined on the basis of their performance and scored on a range of factors. These might include (i) participation for their own book in the primary auctions; (ii) share of total secondary market trading with clients;[14] (iii) provision of liquidity to individual investors on Bond Electronic Exchange (BEX), particularly holders of GSBs;[15] and / or (iv) market share of activity with customers in the corporate debt market. Data recorded by the TBMA should provide sufficient information to track performance here. The weighting of each factor should be determined based on the PDMO's assessment of priorities, in consultation with BOT; the resultant weighting system should be explicit and clearly communicated to existing and prospective PDs.

25. Finally, full market-making services could lead to PDs inadvertently going short, generating a need for a mechanism to cover that risk. Although the BOT enhanced the facility in May 2006, market participants indicate that the existing SPAf, which allows PDs to repo bonds from the BOT for up to one month, does not meet their needs. This may reflect the limitations of the BOT's portfolio with the bonds available for borrowing not those PDs want to borrow. A more effective mechanism might be the creation of a suitable PDMO portfolio from which bonds could be lent, at short tenors.[16] At a minimum, that portfolio would need to hold quantities of all the on-the-run bonds. The PDMO could create a suitable portfolio by retaining some stock on its books from each auction—the German authorities did something similar; alternatively the PDMO could explore its scope to readily create (and

[12] Exclusive access to the auction should be accompanied by a clear commitment to pass investors' bids directly through to the auction without interference.

[13] Access to a non-competitive bidding facility is a common feature of many European primary dealer arrangements, while a "green shoe" option is used by Brazil and Mexico. Both Sweden and the Netherlands have used direct fees to reward PDs, with the overall pot allocated on the basis of the authorities' assessment of PDs relative performance.

[14] In addition, the authorities might want to consider giving FIRSTS activity some priority to improve market transparency. This could comprise "put-through" business, where users show ("put through") negotiated and transacted outside the platform, say over the telephone.

[15] The BEX provides an electronic order book for retail transactions.

[16] In many of those countries that provide such a special repo facility, such as Australia or the United Kingdom, the tenor is only overnight, with a right to rollover.

subsequently cancel) new bonds on demand, as in the United Kingdom. In addition, this facility could be supplemented by the flexibility for the PDMO to "tap" a bond at short notice to address a general level of excess demand in the market. However, as this would be at the PDMO's discretion, it may not help specific PDs address their specific need to rebalance their positions.

D. Primary Market for Corporate Debt

26. The Thai corporate debt market is substantially smaller than the public debt market, representing about 15 percent of the total debt issued and outstanding. In 2006 outstanding corporate debt registered with the TBMA totaled B 846 billion, including B 237 billion of short-term commercial paper. The remaining long-term debt is heavily weighted to bonds with maturities of five years or less (B 475 billion). A very small amount of debt, B 24 billion, is of tenors 10-years or longer.

27. In addition to being small in size, it is relatively homogenous, largely comprised of medium term notes and short-term commercial paper issued by investment grade rated banks or companies. In fact, 93 percent of all outstanding corporate debt is rated A or better by one of the two Thai rating services.[17]

28. In 2006 there were 73 new corporate bond issues totaling B 145 billion. Individual issues ranged from B 50 million to B 25 billion with the tenor of the majority of issues three years or less. In 2006, B 737 billion of commercial paper was issued.

29. Overall, the limited size and uniformity of the Thai corporate debt market is a reflection of the prolonged weakness in private investment, which has limited corporations' demand for capital. However, 3 other factors are important: (i) institutional investors are interested only in purchasing investment grade debt rated A or above, in large measure because prudential regulatory policies substantially restrict institutions ability to purchase below investment grade debt; (ii) the primary underwriters of debt in Thailand are banks, which can provide bank loans as an alternative on competitive terms and may have a business preference for making a high quality commercial loan rather than underwriting a debt issue; and (iii) prudential regulatory restrictions limit or prohibit sub-investment grade companies and unrated public and private companies from issuing debt.[18] These regulatory limits also apply to public issues of short-term commercial paper by companies in Thailand.

[17] Note, Thai rating service standards differ somewhat from international rating standards.

[18] "With regard to the supply of corporate bonds, the limited number of large, quality corporate issuers with financial standings strong enough to meet the rigorous public disclosure and external rating agency requirements results in a higher all-in cost of funding through debt issuance relative to bank lending for most

(continued)