2. Challenges for Introducing PD

2.1. General Features of PD

2.1.1. Definitions

PD system is widely adopted in many countries and areas (including in ASEAN+3 region, namely in China, Hong Kong, Japan, Malaysia, the Philippines, South Korea, Taiwan and Thailand), and the system has many variants depending on the country's circumstances. Reflecting this diversity, International Monetary Fund (IMF) defines this system in a broad manner, to be "an agreement between two major stakeholders in the domestic government debt market – the debt manager and a group of dealers – to pursue a common strategy in support of the functioning and development of primary and secondary markets for government securities."

In almost all cases of this system, it can be characterized by a set of obligations and privileges given to qualified PDs to achieve a common goal to function and develop primary and secondary markets for government debt securities. These "common goals" or obligations usually reflect certain issues that each market is uniquely facing (for example, stable absorption under certain circumstances), and PD system is introduced as a solution to such issues.

In this regard, NRI would like to use this term with the following definition: Primary Dealership is a system whereby the government assigns a set of special obligations and privileges to a limited number of market participants (usually dealers), in order to solve specific issues in the bond market[5], and to offset the risk and cost incurred from the obligations.

2.1.2. Functions

In order to consider introducing the PD system, objectives of the system should be clearly defined. Objectives shall be set in accordance with the challenges of the market. In practice, there are mainly three types of objectives (or expected effects) in introducing PD system, as listed below.

Table & Chart 2-1: Major types of objectives of PD system

Source: Author's schematization from World Bank documents

[5] The issues are to be determined in line with the priority of debt management objectives.

After the clear definition of objectives in introducing PD system, appropriate design of the system (suitable for objectives) needs to be made in order to make the system workable. In this design process, three basic components of PD system – obligations and privileges, membership and target securities & transactions – should be determined, in accordance with the objective.

2.2. Vietnamese Context of PD

2.2.1. Objective of examining PD

Through discussions with MOF, the NRI study team has identified in general the reasons why MOF may want to examine PD system in Vietnam as follows:

- Primary market: Both auction members and underwriters are not necessarily obligated to bid, subscribe and underwrite a certain proportion of any type of government bonds.
- Secondary market: Secondary market remains underdeveloped so far, most likely leading to lesser popularity of government bonds and hence to higher issuance cost of it.

2.2.2. Expected functions of PD

Through discussions with MOF, the NRI study team has also identified in general possible functions of PD system in Vietnam, which MOF may want to see as follows:

- Primary market: PDs shall be obligated to subscribe for a certain proportion of government bonds, and instead be given exclusive rights for subscription.
- Secondary market: PDs shall be obligated to make market to some extent.

2.2.3. Pros and cons of PD

Possible advantage of PD in Vietnam shall include:

- Stabilities of absorption and interest rate movement: Stability of issuance will help smoothing the demand of bidders per auction, which will also help stabilizing price.
- Development of benchmark bonds: Through competitive pricing and active dealing, 5 year bonds are expected to function as the initial benchmark bonds.
- Enhancement of price discovery: There will be increase in the number of bidders in the primary market, and thus pricing would be more driven by competition. Pricing and trading practices will be established and widely used, which creates more transparency and thus participation by wider participants in the secondary market.

On the other hand, possible disadvantage shall inluce:

- Hike of issuance cost: Relaxation or abolishment of interest rate ceiling shall prevail the market rate, which is not necessarily always lower than the ceiling.

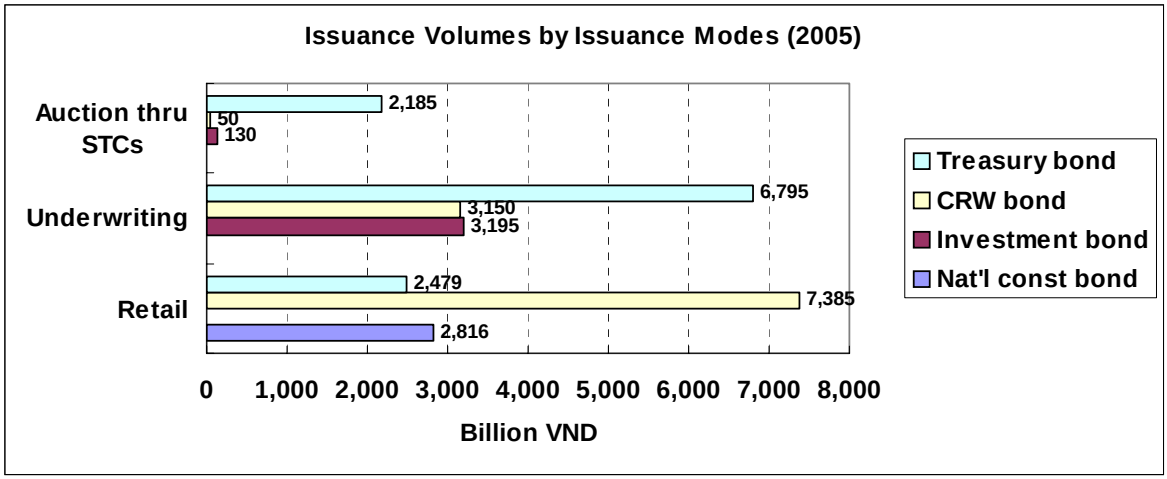
2.3. Challenges for Introducing PD in Vietnam

2.3.1. Issuance modes

One of the essential features of PD system is price discovery, and PD systems in many countries usually adopt competitive auction for better price discovery in the primary market. For this to work well, issuance modes (channels) need to be properly managed so as not to discourage PDs to perform competitively in auctions. For example, if there are any other attractive channels, PDs would lose the incentive to be competitive in auctions.

In Vietnam, however, there are currently signs that auction participants do not have incentives to perform competitively in auctions. Most of the Treasury and centrally-run works' bonds are issued via underwriting and retail channels (accounting for 81% and 99.5% respectively), and auctions only comprise a small portion. Similarly, most investment bonds are issued via underwriting (96%), rather than auctions. This shows that underwriting and retail channels outweigh, or crowd-out, auction at STCs.

Table & Chart 2-2: Issuance volumes by issuance modes (2005)



Note: Government bonds here excludes treasury bill and foreign currency bond which are auctioned at SBV.

Data source: MOF

The dominance of underwriting is explained by the easiness of this mode, both for the issuing and underwriting organizations. According to NRI's interviews with market participants, underwriting can flexibly take place upon request by the underwriting organizations. Also, this issuance mode leaves flexibility on other terms and conditions as well (e.g. issue amount, tenure and others), since these are determined by bilateral negotiations between issuing and underwriting organizations.

This discourages bidding members of STC to participate in auctions, resulting in average number of successful bidders in each auction accounting for only 1.72 for Treasury and centrally-run works' bonds, and 0.4 for investment bonds.

Table & Chart 2-3: Auction vs. underwriting results (2005)

	T- and CRW-Bonds		Investment Bonds		T-bills
	Auction	Underwriting	Auction	Underwriting	Auction
Average # of participants	--	2.07	--	1	2.4
Average # of successful bidders	1.72	--	0.4	--	2.1
# of Auction / Underwriting	25	55	10	28	60
Average issue amount	89	181	8	105	369
Tenures	5 yrs	2, 3, 5, 10, 15 yrs	10, 15 yrs	2, 10, 15 yrs	182, 273, 364 days

Unit: Billion VND

Data source: MOF and SBV

Not only underwriting, but also retail channel is crowding out auctions, as the issue amount through this channel is much larger than auctions. Organizations as well as individuals are allowed to purchase government bonds in both register and non-register forms through retail[6].

Table & Chart 2-4: Eligible buyers and types of bonds issued via retail (2005)

	Buyers	Types of bonds
Registered bond	➢ Individuals ➢ Organizations	➢ Treasury bonds ➢ Centrally-run works' bonds[7]
Non-registered bond	➢ Individuals ➢ Organizations	➢ National construction bonds ➢ Centrally-run works' bonds

Source) Based on NRI's interviews

2.3.2. Issuance schedules

According to regulations explained below, government bond issuance schedules are to be announced both at the beginning of fiscal year and before the issuance.

Decision 66 stipulates requirement for disclosure of government bond issuance plans. According to this Decision, the State Treasury and the Development Assistance Fund (for investment bonds) are to "publicly disclose information on the approved bond issuance plans or annual reports specified by months according to each type of bond, bond term and issuance mode."

Also, under Circular 21, bidding shall be organized weekly, monthly or quarterly, and STCs should announce the following information four working days before the bidding:

- Volume of to-b-issued bonds
- Bidding date

[6] Therefore, it is impossible to assess the amount held by institutions if they purchase non-register bonds.

[7] Underwriting and bidding organizations were not allowed to purchase centrally-run works' bonds through the retail channels in 2005 (Decision No. 9), and in 2006, this type of bonds will not be issued through the retail channel.

- Bidding form
- Issuance date
- Maturity date
- Forms of bond
- Forms of bond sale
- Modes of principal and interest payment

For underwriting and issuance agents, notification should be made at least 20 days before the issuance date.

However, for both, schedule seems not to be predetermined and disclosed in advance. For auctions at STC in 2005, although monthly auction plans were developed at the beginning of year, the plan was not executed except for the first month (January)[8]. There have also been complaints from market players about unclear issuance plan.

Considering that underwriting is flexibly conducted without any yearly or quarterly schedule (it is conducted "upon-request" basis), unclear issuance schedule may only make auctions less attractive compared to underwriting.

Table & Chart 2-5: T- and CRW-bonds Auctions (2005)

Issuance Date	Issue Amount	Tenure	# of Successful Bidders
1/26	50	5	1
2/24	115	5	3
3/15	0	5	1
3/30	190	5	3
4/14	200	5	3
4/28	0	5	1
5/12	0	5	1
5/31	30	5	1
6/14	200	5	4
6/20	70	5	2
6/24	150	5	2
7/11	70	5	2
7/20	0	5	1
8/12	20	5	1
8/23	100	5	1
9/5	50	5	1
9/13	100	5	1
9/22	120	5	3
9/28	100	5	1
10/1	20	5	1
10/25	50	5	2
11/4	200	5	2
11/17	200	5	2
11/30	50	5	1
12/13	150	5	2
Average	**89**		**1.72**

Data source: MOF

[8] According to NRI's interviews.

Table & Chart 2-6: T- and CRW-bonds Underwritings (2005)

Sales Date	Issue Amount	Tenure	# of Participants
1/14	103	5	2
1/31	20	5	1
2/28	220	5	3
3/7	780	5	3
3/10	50	5	1
3/22	320	5	3
4/6	440	5	4
4/13	50	10	1
4/20	300	5	4
5/6	180	5	3
5/17	105	15	1
5/20	120	5	2
5/27	65	5	1
6/6	70	5	2
6/10	250	5	2
6/15	100	15	1
6/17	60	5	2
6/30	170	5	1
6/30	90	15	1
7/7	320	5	5
7/22	50	5	2
7/22	50	2	1
7/22	20	3	1
7/28	158	5	1
8/8	480	5	5
8/9	380	5	4
8/9	50	15	1
8/25	280	5	4
8/25	50	15	1
9/13	130	5	2
9/15	200	5	1
9/28	770	5	4
10/20	370	5	4
10/20	15	2	1
10/20	15	3	1
10/24	100	5	1
10/28	100	5	1
11/3	150	5	3
11/3	50	2	1
11/8	200	5	1
11/8	150	2	1
11/11	188	5	2
11/11	80	2	1
11/15	100	5	1
11/24	165	5	5
11/24	81	2	1
11/24	150	3	2
11/30	125	5	2
12/5	240	5	1
12/8	270	10	1
12/8	200	5	4
12/8	80	2	2
12/8	90	3	2
12/22	80	2	2
12/22	515	5	4
Average	**181**		**2.07**

Data source: MOF

Table & Chart 2-7: Investment Bond Auctions (2005)

Issuance Date	Issue Amount	Tenure	# of Successful Bidders
3/31	75	15	4
5/13	0	10	0
5/13	0	15	0
5/20	0	10	0
5/20	0	15	0
7/15	0	10	0
7/15	0	15	0
7/29	0	10	0
7/29	0	15	0
8/24	0	15	0
Average	**8**		**0.40**

Note: For "issuance date" of the 8th auction of investment bond, date of auction is applied, as the issuance date was unknown from the data.

Data source: MOF

Table & Chart 2-8: Investment Bond Underwritings (2005)

Sales Date	Issue Amount	Tenure	# of Participants
1/25	40	10	1
1/31	100	10	1
1/31	100	15	1
3/31	50	15	1
4/5	80	2	1
4/8	75	2	1
4/21	50	10	1
4/26	200	10	1
4/28	150	15	1
5/25	50	10	1
5/25	80	15	1
5/30	205	10	1
6/21	90	15	1
6/30	10	2	1
7/12	80	10	1
7/29	10	2	1
8/11	10	2	1
8/16	100	10	1
8/24	120	10	1
9/20	80	10	1
10/5	30	2	1
10/21	80	15	1
11/18	140	15	1
12/15	15	2	1
12/20	200	15	1
12/21	200	15	1
12/23	100	15	1
12/26	500	15	1
Average	**105**		**1.00**

Unit: Billion VND

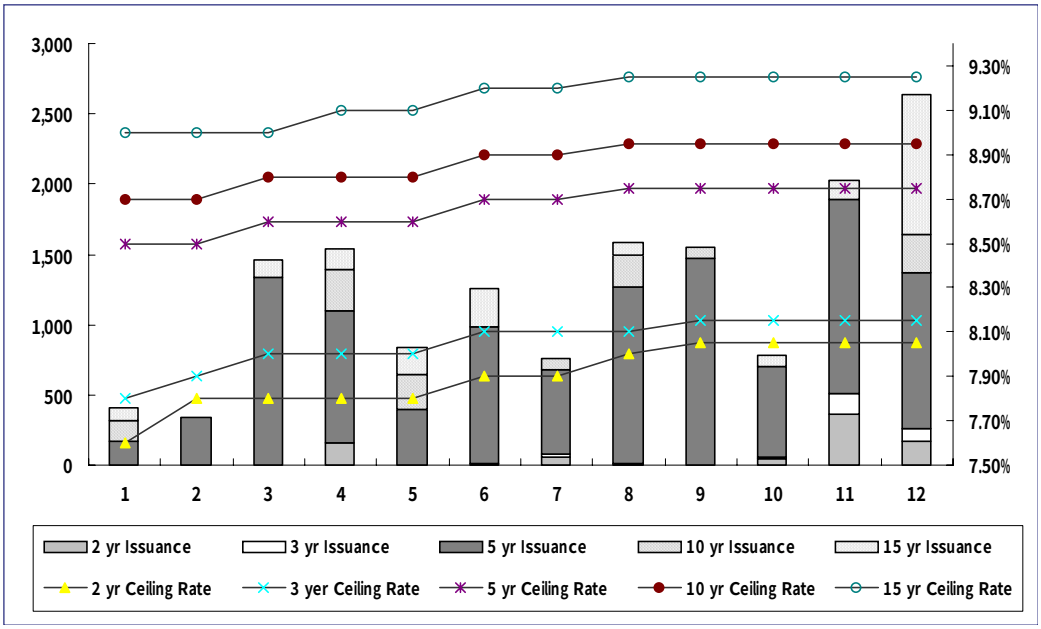
Sales date: Auction date for auction, and issuance date for underwriting.

Data source: MOF

In general, clear issuance schedule is important for bidders to get prepared for auctions. Especially, in PD system, such plan is essential for the risk management of PDs, since they are usually required to bid and/or take certain portion of issue amount. Therefore, disclosure of issuance plan is one of the prerequisites to introduce PD system.

Issuance plan is also important for the issuer, because without stable plans the issuer tends to be vulnerable to interest rate changes. For example, during 2005, interest rate was on the rise continuously. However, 36% of issuance (through auction and underwriting) was conducted in the fourth quarter, when the interest rate was at the highest. This has led to higher issuance cost than if it had been issued with stable schedule.

Table & Chart 2-9: Monthly issuance volume and ceiling interest rates (2005)



Note: Data includes only treasury, centrally run-works and investment bonds issued through auction and underwriting modes.

Unit: Billion VND

Data source: MOF and VCBS

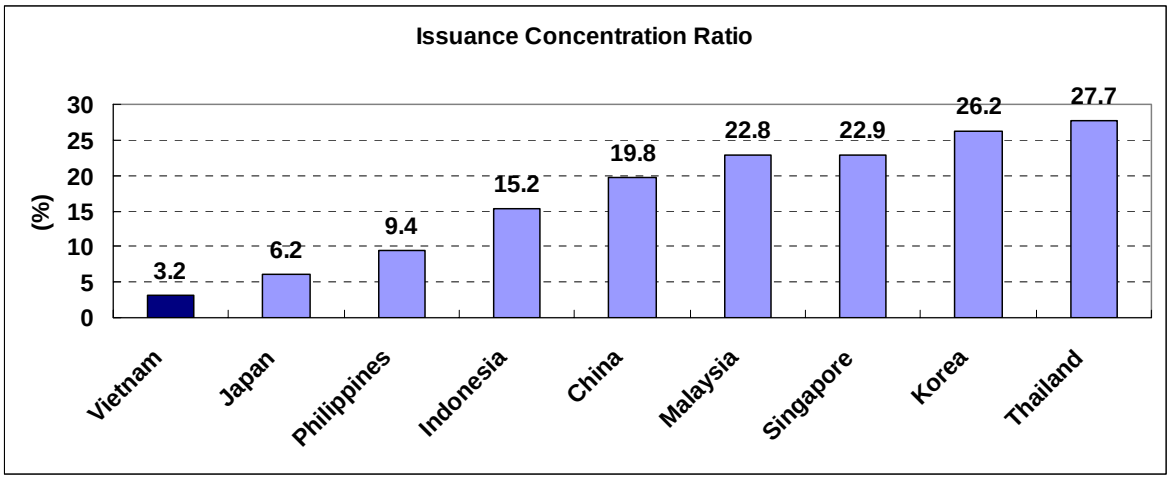
2.3.3. Issue size

To keep sufficient issue size per each bond series is an important factor to enable price discovery efficiently. In order to develop a reliable benchmark yield curve, issue size per series needs to be large enough for various market players to price and make transactions. With smaller issue size, bonds will be absorbed by a few players, making it difficult for others to make market, and also making it easier to manipulate (e.g. front-running and squeezing).

In comparison with selected ASEAN+3 countries, Vietnam has the most scattered numbers of government bonds. This means that issue size is very small per each issuance, making it very difficult to trade these bonds. This is because government bonds are subdivided into many product types and issuance modes, and in addition, among each mode, issuance was conducted very frequently, totaling up to 118 times of auctions and underwriting during 2005 (number of retail sessions is not known).

This issue should be addressed along with the design of obligations or privileges of PDs. For example, if PDs are required to trade in the secondary market, small issue size will be a big bottleneck. Also, if PDs have the privilege to participate exclusively in auctions, the risk of market manipulation increases (squeeze or cornering happens if issue size is small enough for one PD to buy up all and control the price), which needs to be avoided by managing the issue size or the design of privileges.

Table & Chart 2-10: Issuance concentration ratio in select ASEAN+3



Note 1: Issuance concentration ratio = Total outstanding of the three largest government bond issues / Outstanding government bond volume

Note 2: Data varies from 2004 to 2005 depending on country.

Data source: “Asia Bond Indicators,” ADB Asian Bonds Online

2.3.4. Ceiling interest rates

As described earlier, ceiling interest rates of government bonds are tightly set, and are not necessarily consistent with market interest rates.

Table & Chart 2-11: Ceiling interest rates vs. market rates (Dec 2005)

Term	Ceiling interest rates	Bank deposit rates		VNIBOR
		Individual	Corporate	
1 month		6.24%	6.96%	
3 month		7.44%	7.56%	around 7.90% - 8.00%
6 month		7.80%	7.80%	around 8.20% - 8.25%
1 year	6.30%	8.40%	8.40%	
2 year	8.05%	9.00%	9.00%	
3 year	8.15%	9.12%	9.12%	
5 year	8.75%	9.36%	9.36%	
10 year	8.95%			
15 year	9.25%			

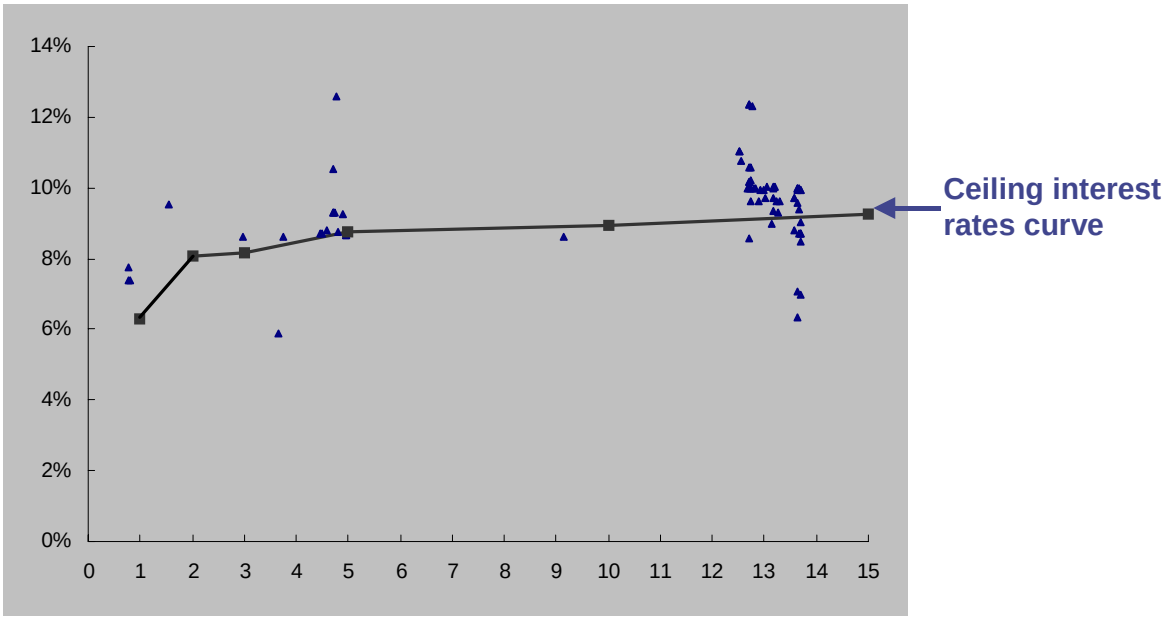
Note 1: as of December 2005

Note 2: Bank deposit rates of VCB's Hanoi capital region

Data source: MOF, VCB and VCBS

Also, ceiling interest rates are mostly lower than the market rates of government bonds traded at secondary market, as shown in the below graph.

Table & Chart 2-12: Ceiling interest rates vs. implied yields at secondary market (Dec 2005)



Note: Implied yields of treasury, centrally-run works and investment bonds listed at HCMC STC.

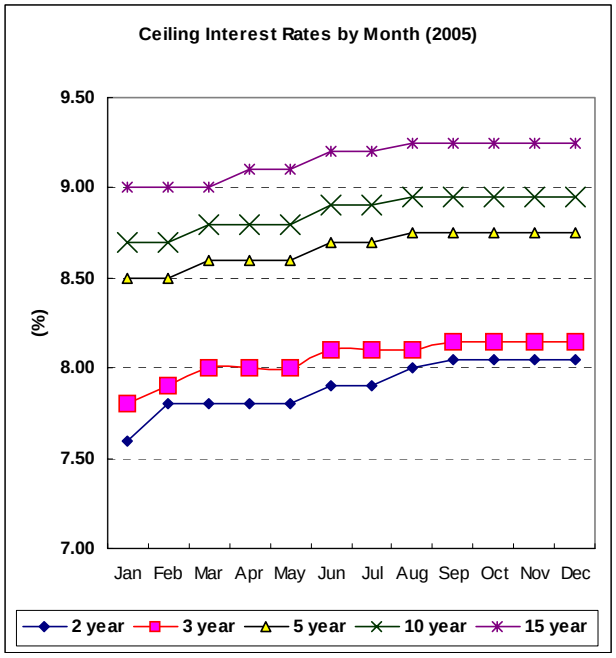
Data source: VCBS

As almost all the government bonds, expect for T-bills, are issued at par, ceiling interest rates effectively cap prices at the primary market. MOF sets out the ceiling interest rates as a response to the absence of competition in auctions (only a very few bidders participate per auction on average). However, this measure leaves auction participants very limited room for bargaining, or just let them opt for not participating at all, which again leads to lesser competition. This kind of vicious circle is observed in the primary market.

Also, the existence of tight ceiling interest rates distorts the holding patterns of market players, thus makes it difficult to observe the real market demands and movements. During 2005, as shown in the ceiling rate graph below, there was a wide gap between 3 year ceiling rate and 5 year ceiling rate. This has presumably distorted the tenure preference of banks, making them opt for 5 years rather than 2 or 3 years (see graph below; banks usually hold larger portion in 2 or 3 year bonds in order to match asset and liability, but not so in this case)[9].

Relax of ceiling interest rate should be addressed along with the introduction of PD system, because PDs are primarily required to discover market prices, both in the primary and secondary markets, through competitive auctions.

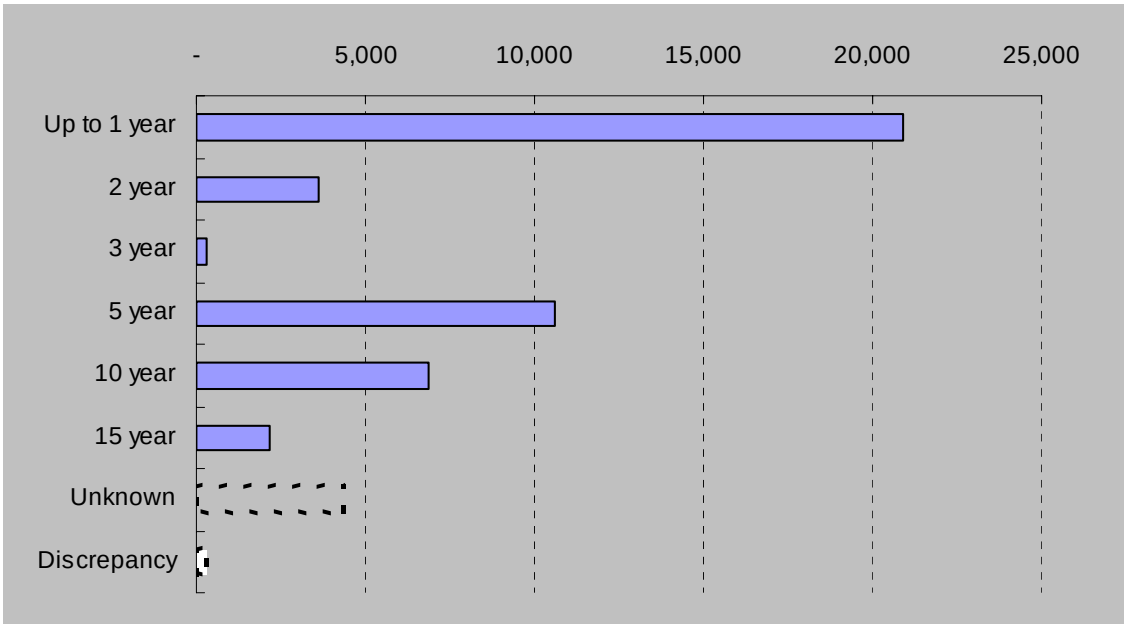
Table & Chart 2-13: Ceiling Interest Rates by Months (2005)



Data source: VCBS

[9] In practice tenures are predominantly determined upon request by underwriters and/or end-investors in case of underwritings, rather than the issuance plan of the State Treasury.

Table & Chart 2-14: Annual Issuance Volume by Tenure (2005)



Unit: Billion VND

Data source: MOF

2.3.5. Investor base

Without diverse investor base, trading in the secondary market would not be activated, since without such diversity, it becomes difficult to find trading counterparties in the secondary market. Therefore, diverse investor base is also one of the prerequisites to PD system, if any of the secondary market obligations are to be adopted.

In Vietnam, there are signs that investor base for government bonds are very limited. T-bills are mostly purchased by 4 SOCBs, with nearly 100% share. For 2-5 year bonds, 4 SOCBs and its securities companies bought and/or intermediated nearly 80%. Similarly, top 1 securities company purchased nearly 80% of 10 year bonds, and top 3 securities companies purshased more than 90% of 15 year bonds. This presumably means that (a) 2, 3 and 5 year bonds are mostly held by 4 SOCBs, and (b) 10 and 15 year bonds are mostly held by 2 or 3 insurers. Therefore, in any tenure, there are only 2 to 4 large investors in the market.

Table & Chart 2-15: Successful bidders and underwriters by tenures (2005)

	VCB Group		ICB Group		BIDV Group		AGRIBANK Gr.		ACBS	BVSC	T.LONGSC	MHB	OHTERS	Total
	VCB	VCBS	ICB	ICBS	BIDV	BSC	AGRIBANK	AGRISECO						
Up to	7,497	0	3,485	0	3,491	0	7,076	0	0	0	0	0	122	21,671
1 year	35%	0%	16%	0%	16%	0%	33%	0%	0%	0%	0%	0%	1%	100%
2 year	151	525	110	30	0	0	0	0	0	0	0	0	0	816
	19%	64%	13%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
3 year	140	15	70	0	0	0	0	0	50	0	0	0	0	275
	51%	5%	25%	0%	0%	0%	0%	0%	18%	0%	0%	0%	0%	100%
5 year	940	2,264	2,087	0	320	1,830	0	750	1,226	0	330	661	197	10,604
	9%	21%	20%	0%	3%	17%	0%	7%	12%	0%	3%	6%	2%	100%
10 year	0	270	0	0	0	0	0	50	0	1,025	0	0	0	1,345
	0%	20%	0%	0%	0%	0%	0%	4%	0%	76%	0%	0%	0%	100%
15 year	0	465	0	90	0	0	0	900	0	645	0	0	60	2,160
	0%	22%	0%	4%	0%	0%	0%	42%	0%	30%	0%	0%	3%	100%
Total	8,728	3,539	5,751	120	3,811	1,830	7,076	1,700	1,276	1,670	330	661	379	36,871
	24%	10%	16%	0%	10%	5%	19%	5%	3%	5%	1%	2%	1%	100%

Note: Data includes only treasury, centrally run-works and investment bonds issued through auction and underwriting modes.

Unit: Billion VND

Data source: MOF and SBV

2.3.6. Trading intermediary

Although years 2004 and 2005 have seen massive increase in the secondary market trading, the number of transactions is still very few. Number of transaction per working day averages approximately 4 only, making market-making almost impossible. Although one bank has recently announced to become a market maker (to quote indicative price, rather than firm price), there still exists very limited practice of it as a whole, impeding the liquidity of government bonds.

This is partly because the number of intermediaries itself is limited. Large portion of secondary market transactions are conducted by only a few large players, and led by the two largest (VCBS and Agriseco). Again, existence of enough trading intermediaries is a prerequisite to PD system, if any of the secondary market obligations are to be adopted.

Table & Chart 2-16: Number of Secondary Market "Put Through" Trading in 2005

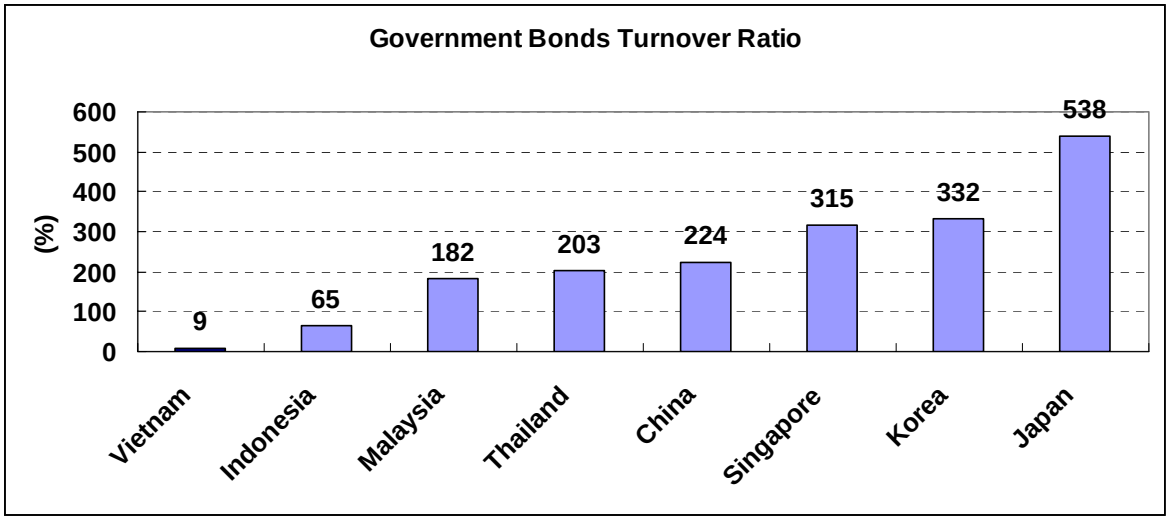
	BVSC		BSC		SSI		FSC		TSC		ACBS		IBS		AGRISECO		VCBS		MSC		HSC		HASECO		DAS		Total	
	Buy	Sell	Buy	Sell	Buy	Sell	Buy	Sell	Buy	Sell	Buy	Sell	Buy	Sell	Buy	Sell	Buy	Sell	Buy	Sell	Buy	Sell	Buy	Sell	Buy	Sell	Buy	Sell
2005/1	3	2	5	3	3	3	0	0	0	0	2	2	8	5	13	17	19	19	0	0	0	1	0	0	1	2	54	54
2005/2	2	1	5	4	3	4	0	0	0	0	0	0	1	1	13	16	10	8	0	0	0	0	0	0	0	0	34	34
2005/3	7	2	10	8	6	4	0	0	0	0	0	3	6	8	26	25	16	19	0	0	0	0	0	1	0	1	71	71
2005/4	2	4	13	10	4	6	0	0	0	0	5	2	3	3	33	35	22	14	0	0	0	0	0	0	1	9	83	83
2005/5	1	5	11	8	4	2	0	0	0	0	1	0	2	2	27	32	18	13	0	0	0	1	0	0	0	1	64	64
2005/6	7	7	7	5	8	5	0	0	0	0	6	2	4	5	25	36	34	30	0	0	0	0	0	1	0	0	91	91
2005/7	12	11	6	18	0	4	0	0	0	0	3	2	5	4	44	40	35	32	0	0	2	0	0	0	7	3	114	114
2005/8	10	9	5	3	4	4	0	1	0	0	0	2	7	4	23	38	36	26	0	0	0	0	0	0	2	0	87	87
2005/9	7	8	10	6	2	5	0	0	0	0	2	8	13	9	37	43	47	40	0	0	0	0	0	1	2	0	120	120
2005/10	3	4	12	17	5	5	0	0	0	0	24	16	8	14	43	44	42	34	0	0	0	1	0	2	0	0	137	137
2005/11	3	4	9	11	6	6	0	0	1	0	3	1	11	10	50	38	20	31	0	0	1	0	0	1	0	2	104	104
2005/12	6	7	10	13	4	7	0	0	1	0	3	2	13	12	12	11	31	23	0	0	0	4	2	1	0	2	82	82
Total	63	64	103	106	49	55	0	1	2	0	49	40	81	77	346	375	330	289	0	0	3	7	2	7	13	20	1,041	1,041
(%)	6%	6%	10%	10%	5%	5%	0%	0%	0%	0%	5%	4%	8%	7%	33%	36%	32%	28%	0%	0%	0%	1%	0%	1%	1%	2%	100%	100%

Unit: Number of Transactions

Data source: HCMC STC

Reflecting such situations, Vietnam's government bonds turnover ratio remains the lowest among select ASEAN+3 countries.

Table & Chart 2-17:Government bonds turnover ratio



Note 1: Turnover ratio = Annual trading value (excl. repo) / Annual average outstanding
Note 2: Vietnam as of 2005; other countries as of 2004
Data source: NRI's rough estimate for Vietnam; "Asia Bond Indicators," ADB Asian Bonds Online for other countries

2.3.7. Price information

Reliable and timely price information is indispensable for dealers to make market, and for investors to activate buy and sell in the secondary market. Also, price information will be the basis for mark-to-market requirements (which are required but not implemented in Vietnam), and without this, international-standard repo cannot be implemented either.

Currently, although STC collects and disseminates such price information, there is no distinction between outright and repo (i.e. securities companies are not required to report them separately). Since only short-term interest rates are relevant to repo, pricing of underlying bonds itself tends to be rough rather than accurate. Therefore, it is difficult to assess the real market value of a particular bond through the trading data.

2.3.8. Custody, clearing and settlement

Findings and observations on custody, clearing and settlement are as follows:

1) Issuance routes are scattered at four places resulting in difficulty to integrate information at one point of place with regards to government bond issuance.
2) Consequently relevant depository and settlement functions are also split to each organization.
3) Following is an example of risk incurred from the split of the settlement function:
   - From investor's view point there is a timing gap for a few days between payment of proceeds at State Treasury and the receipt of the new purchased securities at STC.
   - Such gap comes from the fact that it takes a few days for State Treasury to deliver the relevant investors list to STC, which is the official supporting evidence for STC to post securities to investors account.
   - The gap could put investors in a risky position that they cannot sell the purchased bonds until the time of booking of the bonds to their securities account at STC, even just for a few days.

Recommendations for further improvement of custody, clearing and settlement operation are as follows.

1) To organize a committee under initiative of MOF in order to discuss integration on management information with regard to government bond issuance consisting of relevant departments of the governmental organizations such as MOF, ST, SBV, STC and other relevant and competent organization.
2) Focal points of discussion are;
   - How can good quality of management information on the issuance of government bonds be available in a timely manner with accuracy?
   - What kind of resources is required to make the above? Is it human resources and / or information technology?
   - How can they find various risks built in the settlement infrastructure and find ways to mitigate such risks?
   - What is positioning of this infrastructural issue in relation to designing strategy of government bond market development?

2.4. Prerequisites and addressability of PD

As described above, a number of prerequisites need to be cleared beforehand for PD to function effectively in Vietnam, while PD can also address several challenges thereafter.

Table & Chart 2-18: Prerequisites and addressability of PD

Challenges	Prerequisite to PD	Addressable by PD	Neutral to PD
2.3.1 Issuance mode	Yes		
2.3.2 Issuance schedule	Yes		
2.3.3. Issue size		Yes	
2.3.4. Ceiling interest rate		Yes	
2.3.5. Investor base	Yes		
2.3.6. Trading intermediary	(Yes)		
2.3.7. Price information	(Yes)		
2.3.8. Custody, Clearing & Settlement			Yes

Note: "Yes" with parenthesis "(Yes)" means Yes provided that the PD system is with secondary market obligations.

Source: Author's schematization