# Proceedings of the International Workshop on The Challenge and Opportunity of the Indonesian Debt Market

September 27-28, 2005

# **Table of Contents**

Table of Contents	iii
Acknowledgements	Vi
Overview	vii
Introductory Remarks	
Welcome Remarks	3
Keynote speech	4
Challenge and Opportunity of Government Securities	6
Mechanism and Infrastructure for Government Bonds as a monetary instrument	
Government Securities as a Fiscal Instrument and the Role of Debt Management Office	12
Government Securities as Investment Opportunities	22
Q&A Session Summary	27
Global Perspective: Effective Supervision Mechanism and Government Securities	28
Development of the Bond Market in Hong Kong (China)	29
Effective Supervision Mechanism for Government Securities	
Effective Supervision Mechanism on Government Securities - A Singapore Perspective	35
Q&A Session Summary	38
Lunch – Keynote Speech	39
Global Perspective: Improving Price Discovery to Support Market Transparency	41
Transformation of the Indian Bond Market	
Taiwan (China) 's Perspective: Improving Price Discovery to Support Market Transparency	
Developing Bond Markets: A Japanese Perspective	
Q&A Session Summary	
Global Perspective: Tax Policy and Administrative Procedure to Encourage Domestic Bond Mar	ket 65
Taxation Policy to Support investment in Bond Market	
Current State of Accounting and Taxation	
Keynote Speech:	
The Role of Bank Indonesia in Developing Indonesian Bond Market	
Global Perspective Infrastructure Development to Enhance Market Liquidity	74
Securities Lending & Borrowing and Repo	
Interest Rates Futures Market	
Credit Derivatives and Credit Linked Products.	
An Essential Part of Indonesia's Debt Markets	
Clearing and Settlement Arrangements	
Credit Rating	94
Importance of Credit Ratings for the Indonesian Bond Market	
Role of rating agencies	
Q&A Session Summary	
List of Figures	
Figure 1: Investors Ownership	
Figure 2: Government Bond Market	
Figure 3: Government Bond Infrastructure	8
Figure 4. Cattlemant Time Distribution	
Figure 4: Settlement Time Distribution	9

Figure G. Magnitude of Dobt	10
Figure 6: Magnitude of Debt	
Figure 8: Cost-Risk Trade Off	
Figure 9: Profile Debt Securities, as of September 01, 2005	
Figure 10: Debt Securities Structure as of September 1, 2005	
Figure 11: Debt Securities Structure (cont.) as of September 1, 2005	
Figure 12: Re-profiling: Reducing Refinancing Risk	
Figure 13: Indonesia's Credit Rating Ladder	
Figure 14: Secondary Market: Average Daily Trading	
Figure 16: Current Ownership by Maturity	
Figure 18: Yield Curve Movement	
Figure 19: New Equilibrium of Government Bond Prices	
Figure 20: Government Bond Ownership by Major Players	
Figure 22: Mutual Funds Growth	
Figure 22: Increasing Market Risk	∠5
Figure 23: Lower Appetite for New and Re-opening Issues	∠5
Figure 24: SGS Market Structure	33
Figure 25: SGS Secondary Market Trading Structure	
Figure 26: Government Bond Market	
Figure 27: Rising Trading Volumes	
Figure 28: NDS Deal Entry Screen	
Figure 29: NDS-OM Market Depth Screen	
Figure 30: Significant Growth of Domestic Bond Market	
Figure 31: Rapid Growth of Outright Trading	
Figure 32: Bond Trading Volume Classified by Different Maturity	
Figure 33: Government Bond Holders in 2004	
Figure 34: Derivatives Trading Volume at the OTC Market	
Figure 35: Daily Trading Volume of 10 year Government Bond Futures	
Figure 36: Overview of the Japanese Bond Market	
Figure 37: Outstanding Amount of Bonds	
Figure 38: Trading Volume of Bonds on the OTC market	
Figure 39: By Investor Type	
Figure 40: Primary Market Related Developments, secondary Market and Taxation	
Figure 41: US Secondary Market	
Figure 42: Infrastructure Comparisons in Government markets	
Figure 43: Growth of US Repo Market	
Figure 44: the Credit Derivatives Market is Maturing	84
Figure 45: Indonesian Government bonds: Average daily frequency	
Figure 46: Indonesian Government Bonds: Average Trade Size	
Figure 47: UK non-government bond market	
Figure 48: Most trading takes place shortly after issuance	
Figure 49: "What do Ratings Mean?"	
Figure 50: Rating Agencies Overview and Approach	
Figure 51: Rating Landscape	
Figure 52: Indonesia Sovereign Rating History	
Figure 53: Credit Ratings – Local versus International	
Figure 54: Credit Ratings and Default Risk Premium	
Figure 55: Republic of Indonesia Bonds Secondary Performance	
Figure 56: Philippine Case Study	
Figure 57: Market Reality vs. Ratings. Indonesia vs. Philippines	
Figure 58: Rating Process	
Figure 59: Rating Symbols	
Figure 60: Default Study	105

#### List of Tables

Table 1: Supply: Government Issuance	9
Table 2: Developing the Government Bond Repo Market	
Table 3: Secondary Market: Liquidity by Maturity	
Table 4: Primary Market and Secondary Market	
Table 5: Secondary Market	
Table 6: Statistics of Bond Trading Volume	

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The Government of Indonesia has been placing increasing emphasis on development of the Nonbank Financial Institutions (NBFIs). As part of this effort, and as part of the World Bank's support to the Government in this area, a series of four workshops was held during 2005-06 focusing on various issues facing NBFIs. These proceedings are a record of the discussions at the second workshop focusing on debt market. These proceedings have been prepared jointly by Bureau of Securities Transaction and Institution, BAPEPAM-LK, Ministry of Finance, Government of Indonesia, Self Regulatory Organization (SROs) and a World Bank team.

A number of people and institutions were involved in planning and implementation of the workshop. BAPEPAM-LK, Ministry of Finance, Indonesia as well as the World Bank Jakarta Office would like to extend their gratitude to speakers, panelists, moderators as well as participants who made this workshop successful with providing their valuable inputs during the workshop.

Key people from the Government of Indonesia who helped organize the workshop and prepare these proceedings include Messrs. Darmin Nasution (former Chairman of BAPEPAM and Director General of Financial Institutions, Ministry of Finance), Arif Baharudin, Yunita Linda Sari. Thanks are also due to Dr. Fuad Rahmany, Chairman, Bapepam-LK, for his support of this publication.

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#### Overview

P. S. Srinivas

Lead Financial Economist, the World Bank Jakarta Office

Well-functioning government and corporate debt markets are critical elements of modern financial systems. A mature domestic bond market offers a wide range of opportunities for funding the government and the private sector, with the government bond market typically creating necessary benchmarks for other issuers.

Bond markets play a critical role by assisting governments and firms in mobilizing financing for investment needs; helping governments and firms in obtaining financing directly from the market, thereby subjecting them to the discipline of the market as well as providing healthy competition for the banking system, and thereby reducing concentration of risk in the banking sector; and providing investors with access to diverse types of financial instruments in which to invest both directly and indirectly through mutual funds, pension funds, and insurance firms.

In many countries, bond financing is the main source of long-term financing because commercial banks' shorter-term liabilities place constraints on their ability to finance long-term assets. Countries therefore need well-developed bond markets to improve the efficiency of allocation and increase the availability of capital. An added benefit is that a strong domestic bond market strengthens the resilience of a country's financial system to external shocks through reduced dependence on foreign capital inflows.

Recognizing their importance, Indonesia has placed substantial emphasis on the development of domestic bond markets. Indonesia's bond market is still in the early stages. The government bond market has grown rapidly. From literally no government bonds prior to 1997, tradeable domestic government bonds in 2005 totaled nearly Rp. 400 trillion (15 percent of GDP). Although much of this was initially driven by recapitalization of the banking system, the government now accesses bond markets for its regular financing needs. Annual net issuances are about 1 percent of GDP. Recently the government has adopted a debt management strategy to expand the share of domestic debt in total public debt. Retail bond issuance has also been made a priority. The corporate bond market, although much smaller than the government bond market, is also growing, with outstanding issues of about Rp. 63 trillion in 2005. A well-functioning corporate bond market would allow Indonesian corporate issuers to finance themselves at lower cost using instruments better tailored to their needs.

Demand from other sources is also growing. Indonesia is committed to a large infrastructure development program, a substantial portion of which is expected to be financed by private capital mobilized from domestic as well as international capital markets. Particular effort is being made to encourage the financing of private infrastructure projects through domestic bond markets. In the medium term, sub-national governments will also increasingly need access to bond markets. All in all, therefore, domestic debt markets will play an increasing role in Indonesia's financial sector.

In order to address some of the major challenges that lie ahead as Indonesia develops its bond markets, an international seminar on the subject was held in September 2005. This seminar brought together practitioners, policy makers, regulators, government officials, and international expert. Experiences of several countries with major policy and technical issues were discussed. The implications of these experiences and the options available to Indonesia were debated extensively during the seminar. These proceedings record the discussions and presentations at the seminar. It is hoped that this will provide a useful source of information as well as a guide to policy decisions as Indonesia continues its efforts to further strengthen its debt markets.

# **Introductory Remarks**

#### **Darmin Nasution**

Chairman of Capital Market Supervisory Agency (BAPEPAM) Director General of Financial Institutions, Ministry of Finance, Indonesia

Let me extend my warmest welcome first to our foreign speakers who have joined us at this workshop. Secondly, I have to express my sincerest gratitude to the World Bank, the Central Bank-Bank Indonesia, the Debt Management Office of The Ministry of Finance and the Self-Regulating Organizations (SROs) for their contribution towards the success of this workshop. It is an opportune time to organize this workshop on the Indonesian debt market, in light of some of the situations that we have been facing currently.

Like most other countries in the region, we are a typical of bank-based economy. Our business relies heavily on bank- financing and savings and deposits outperform other instruments, including capital market instruments. Prior to the financial crisis in 1997, the Government did not have a large fiscal deficit, and so there was a limited need for government bonds. It was only after the Asian financial crisis that we began to recognize the growing importance of developing our debt market, the market for government securities in particular. All studies conducted and recommendations issued brought to light the urgency of making the most of government securities as fiscal and monetary instruments in the economy. We then implemented these recommendations.

We created The Debt Management Unit in 2000. It was formerly structured under the Directorate General of Financial Institutions, before being transferred to Secretary General of the Ministry of Finance. We then transferred it into the State Treasury of the Ministry of Finance last year. The transfer was intended to ensure that Government debts are well managed and the markets are maintained in line with Government objectives. Despite this strong foundation a minimum assurance has been provided with the passage of Government Securities Laws of 2002, State Finance Law of 2003 and State Treasury Law of 2004.

These laws and regulation provide legal certainty to the parties' concerned. The same institution law and regulatory reforms have been given a clear separation of responsibility between the Central Bank and the Ministry of Finance. The former is responsible for monetary policy while the latter maintains fiscal policy. We admit that much more remains to be done as our debt markets are still under development. We need to improve our professional expertise by increasing the skilled staff in the management office. This has been one of our biggest priorities since the establishment of the management unit in 2000.

Our market infrastructure is not so advanced, our secondary market is far from liquid and our report market is not quite active. We need to improve these markets further. The Master Repurchase Agreement was launched last June to enhance market liquidity. We encourage primary dealers to be more active as they possess the means for an efficient price discovery. Additionally, we are working intensively to establish related financial markets, such as lending and borrowing of securities, and a short-term lending scheme for government securities, which may facilitate a risk management strategy.

These are aimed towards further development of both primary and secondary markets of that instrument which is expected to further boost liquidity. We need to stimulate both supply and demand side of this industry. In this regard, we need to promote a secondary market for these instruments through an effective regulatory framework, fiscal incentives and educational programs to generate wider public interest. This will lure bank, institutional and retail investors into the market.

A well-functioning government debt market can help the government in financing its expenditure efficiently. It also may ease the task of the Central Bank in formulating an effective monetary policy. And for a securities regulator a developed government debt market may serve as a stepping stone to developing a corporate bond-market, as they offer a pricing benchmark for private debt in issuance. To the same extent it may also speed up the growth of capital market as a whole. Significant growth of our mutual fund industry over the past four years is strong evidence of how our security markets benefited from a well-structured issuance of government securities in the form of recapitalization bonds. The notable growth of the net asset value of the mutual fund industry from just Rp. 8 trillion in December 2001 to about 100 trillion at the end of 2004 was clearly linked to the emergence of fixed income funds invested in recap bonds in 2001.

However, recently many investors redeemed their units and relocated their funds to other instruments that are safer, stable and more promising. Most of the funds are now flowing back to conventional instruments, such as bank deposits. Some may argue that it was the decline of breakup bond price that brought about that panic. Some say that it was the fall of the Rupiah, combined with rising interest rates that triggered the fall. Others believe that it was the oil price rise and the slowdown in the global economy that caused the drop. Critics can argue that we as securities regulators failed to supervise the aggressive marketing techniques of selling agents. Others may doubt the effectiveness of regulations. We have received complaints that question our role in maintaining confidence in our mutual funds industry.

I accept those critics or arguments, but allow me to comment on them. We did and will continue to do our best to preserve the integrity of the mutual fund industry and stay committed to its growth. We will keep enhancing regulatory framework, improving market infrastructure, heightening surveillance systems and boosting our enforcement activities. We did it regardless of any misfortunes the market had in the past, at present, or in the near future.

I started my initial bureaucratic work in 1993, when I joined the Coordinating Minister of Trade and Industry. I was transferred to the Ministry of Finance in early 2000, as the Government made me the Director General of Financial Institutions. This is how I started my new career in the financial sector, which was quite different from my work in the previous Ministry. My first year with the Ministry of Finance was very challenging from a political and economical perspective. We strove for survival and did our best to regain the confidence in our economy. We have come a long way through difficult times and launched numerous reforms to promote economic growth, that we have sustained until today.

In doing so, we must not forget the role our international counter-parts played in helping us redesign our new financial structure that laid out a more solid and stable foundation for our economy to grow. International organizations such as the World Bank stood by us during good and bad times and contributed to nurturing the Indonesian economy. They continue to render their valuable support today, as I take the Chairmanship of BAPEPAM. We are committed to maintaining a constructive relationship with the World Bank and other international organizations as well.

Let me end my remarks by thanking all of you for participating in this workshop. May this workshop contribute to the development of the Indonesian capital market and Indonesian debt markets in particular.

### **Welcome Remarks**

#### William E. Wallace

Lead Economist, the World Bank Jakarta Office

On behalf of the World Bank it is my pleasure to welcome you to this workshop on the development of debt markets in Indonesia. Well-functioning Government and corporate debt markets are the backbone of modern economies. They play a crucial role in assisting Governments to mobilize financing or investment needs. They assist corporations in getting access to financing directly from the market, thereby subjecting them to the discipline of the market as well as providing healthy competition for the banking system.

They provide investors' access to diverse type of financial instruments in which they can invest both directly and through mutual funds, pension funds and insurance companies. In fact, in many countries bond financing is the main source of long-term financing, due to the maturity mismatch that the banks face. Countries need well-developed bond markets to improve the efficiency of capital allocation and increase the availability of that capital. And there is the added benefit that a strong domestic bond market increases the resilience of a country's financial system to external shocks.

In Indonesia the situation with respect to the debt market is changing very, very rapidly. From literally no government bonds, as Mr. Darmin mentioned, we now have government bonds of over 600 trillion, 25 % of GDP. Corporate bond markets, although much smaller, are also growing and are now over Rp.60 trillion. Although much of this has been driven by the recapitalization of the banking system, domestic bond financing is not and should not be restricted to one of its uses. For example, the debt management strategy the Government recently unveiled in Parliament tries to build a deepening domestic bond market as a part of the plan to reduce the share of foreign debt in the total debt.

The Government-bond curve established high quality corporate issuers to also financing themselves at lower cost enables. Demands from other sources are also increasing. Indonesia is committed to an extensive infrastructure development agenda, as we all know. The vast majority of that will be financed by private capital. This will also have to be mobilized from domestic as well as international capital markets. And sub-national governments, especially cities, will need to finance their development needs. All in all, the domestic debt markets must play an increasing role in Indonesian finance and it is critical that the key policy issues be addressed.

Regulations and supervision of bond markets need to be strengthened. This will require a better infrastructure, improved quality, more transparency and the ability to handle a higher volume and variety of transactions. These and other important issues will be discussed in the next two days and the World Bank remains committed to working with the Government to strengthen debt markets in Indonesia. There is a lot of interest in the bond market, particularly for a technical seminar like this but also, in the near future the demand for improvements in the bond market is certainly there.

Thus let me say how pleased I am to see so many domestic and international participants and how much I look forward to your suggestions on how to promote the bond market.

# Keynote speech

JB. Kristiadi

Secretary General, Ministry of Finance, Indonesia

Chairman Darmin has just highlighted some achievements we made towards the development of Indonesian debt markets. Taking those into consideration, allow me to give my views on issues concerned from different angle, by linking them with economic situation we currently have since His Excellency President Susilo Bambang Yudhoyono asserted national leadership in October 2004 to date.

We have entered 2005 on a promising note. According to our long-term economic plan and medium economic plan the economy should grow by 6.6 % per annum for the next 5 years, unemployment should reduce from 9.5 % in 2004 to 5.1 % in 2009 and poverty incidents will reduce from 16.6 % in 2004 to 8.2 % in 2009. We do realize that it is not an easy task to sustain these targets. These targets can be achieved only if we keep inflation low, if the fiscal budget in control and we continue our economic reforms. With strong support and commitment from the Central Bank, monetary policy is directed at achieving the medium-term inflation target, and making policy remained focused on enhancing banking stability.

Policy action now aims at a more favorable investment climate and tackling the lack of competitiveness in the manufacturing industry as well as in agriculture. As you may know, last week we were part of a road-show in Europe, among the other ASEAN countries. One of our goals is to increase foreign direct investment in Indonesia. On the real sector, we direct policies towards creation of a more favorable investment climate, and to tackle the lack of competitiveness in manufacturing industry, as well as in agriculture. In the capital market arena, policies are directed towards enhancing its role as alternative source of financing for Indonesian business and government, and as an attractive investment alternative for investors.

In August 2005, our economy faced some turbulence due to oil price hikes and the U.S. Federal Reserve hikes in interest rates. The Rupiah, our domestic currency, depreciated and the Jakarta Stock Exchange composite index fell into its lowest level in the previous seven months.

President Susilo Bambang Yudhoyono took the lead in overcoming the situation. He openly talked to the public to clarify the situation and explained his administration's strategy. He met consultants, prominent persons from various backgrounds just to find out the most effective measures to deal with the situation. He encouraged ministers to improve coordination at all levels, to ensure that the newly-issued directives be well implemented.

He took the following measures to overcome the recent economical obstacles. The first one was the energy sector. These included, diversifying energy, conserving energy, increasing domestic production of fuel, building new oil refineries, dealing with oil smuggling. He mentioned this strategy at any public appearances, including the one he had in New York at Indonesian investors gathering last week. The World Bank President responded positively, the IFC senior officials shared similar views, and the US Assistant Secretary for Economic and Business Affairs gave its support to Indonesia to implement this strategy.

The second agenda was tackling the problem of the Rupiah depreciation. Bank Indonesia, our central bank, managed to deal with that issue effectively. The third agenda was the fiscal sector, which is the area of the Ministry of Finance. That emphasized the need to maintain the 2005 budget in a stable manner. This is not easy for us because we have to increase our tax revenue and reduce our expenditure sharply.

The last agenda was a strong directive to re-confirm our commitment to investments. Regulation should be investor-friendly and should ensure similar treatment to investors, regardless their

nationalities. In this regard we have to compete with our ASEAN neighbors, since the bureaucracy in these countries is improving its public service delivery.

The government is committed to maintain its promise: to adopt economic strategy that is "Pro Growth", Pro Job Creation", and "Pro Poor". Thanks to our international counterparts for being so supportive.

Challenge and Opportunity of Government Securities as Fiscal, Monetary and Investment Instruments

# Mechanism and Infrastructure for Government Bonds as a monetary instrument

**Budi Mulya** 

Director, Monetary Management, Bank Indonesia

#### Overview of the Indonesian Government Bond Market

For other economies, using SUN (government securities) as underlying open market operations is not a new thing. In Indonesia, this is just beginning and has just started in the year 2005 as mandated by law. Despite the big redemption in mutual funds (about USD 4 billion) or 40 trillion Rupiah, other investors still see an opportunity to trade and hold SUN. Foreign investors are important and are net buyers in this market. Pension funds also contribute quite significantly to this market (see figure 1).

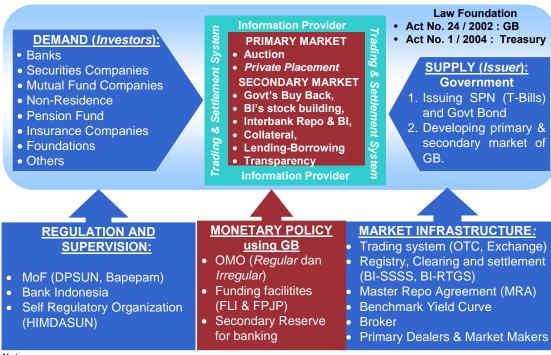
Indonesia is a bit better off where the infrastructure settlement system is concerned. The country moved from the non-scripless to the scripless era in the year 2004. The following chart gives a sense of the structure of the market (see figure 2).

The central bank, Bank Indonesia (BI) is mandated by law to be an issuer of government bonds. BI also acts as the central registry. The central bank functions as a government bond administrator and conducts ownership registration, clearing and settlement services, payment and redemption services. There are several banks appointed by BI that act as sub registrars in the market and offer custodial services to individual customers. BI has also been granted the power to be the auctioning agent for state treasury bills and for state bonds in the primary market. Another of BI's functions is to participate in the secondary government bond market in an effort to ensure financial system stability and nullify the effects of excess volatility.

31 Jan 2005 22 Sep 2005 % Type of Investor Δ 252,466.47 249,991.50 **Recap Bank** (2,474.97)-1.0% Non-Recap Ban 33,928.29 50,339.93 16,411.64 48.4% -22.3% 120,704.43 93,739.09 **Sub-Registry** (26,965.34)104,243.91 69,935.64 1. Resident (34,308.27)-32.9% 474.74 763.98 Corporate 289.24 60.9% Foundation 1,743.78 2,259.71 515.93 29.6% Financial Institution 465.67 1,146.32 680.65 146.2% Individual 12.40 78.07 65.68 529.8% 27,042.06 32,362.43 19.7% Insurance 5,320.38 Mutual Fund (Reksadana) 56,618.13 10,368.20 -81.7% 17,401.15 22,069.03 Pensiun Fund 4,667.87 26.8% Securities Company 346.98 751.89 404.91 116.7% Other 139.00 136.00 -2.2% (3.00)2. Non-Resident 16,460.52 23,803.45 7,342.92 44.6% Bank Indonesia 10,383.60 10,383.60 0 100.0% MOF 0 994.00 994.00 100.0% Total 407,099.19 405,448.12

Figure 1: Investors Ownership

Figure 2: Government Bond Market

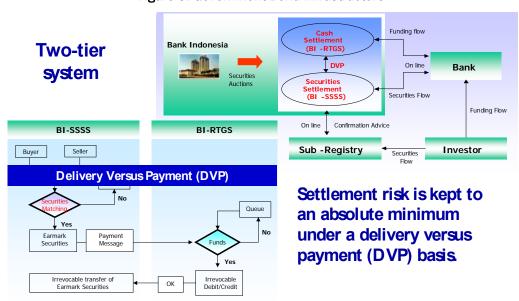


#### Note:

- Trading System: IGSTS (Indonesia Government Securities Trading System), BBT (Bloomberg Bond Trader)
- Penyedia Informasi: Bloomberg, Reuters

The following chart gives a sense of the supply side of the government bond market and the market infrastructure. The market follows a two-tier structure (see Figure 3). Bl conducts the securities auction. The securities risk is kept to the absolute minimum through a delivery versus payment system. The cash settlement is done by Bl-RTGS (Bank Indonesia-Real time Gross Settlement system) and the securities settlement is done by Bl-SSSS (Bank Indonesia, Scripless Securities Settlement System).

Figure 3: Government Bond Infrastructure



	Oversubscribe	Undersubscribe	No-winner	
Items	FR0022	FR0031	FR0032	
items	110022	Reopening 1	Perdana	
Auction Date	08-Apr-03	26-Jul-05	26-Jul-05	
Issuing Date	10-Apr-03	28-Jul-05	28-Jul-05	
Maturity	15-Sep-11	15-Nop-20	15-Jul-10	
Coupon Payment	15 Mar, 15 Sep	15 Mei, 15 Nop	15 Jul, 15 Jan	
Indicative Target	Rp2.700 billion	Rp 2.000 billion	Rp2.000 billion	
Incoming Bids	Rp8.047 billion	Rp496 billion	Rp 2.455 billion	
Competitive	Rp6.448 billion	Rp461 billion	Rp 2.455 billion	
Non competitive	Rp1.599 billion	Rp35 billion	Rp0 billion	
Bidders	42	6	22	
- Banks	33	5	19	
- Securities Companies	3	1	3	
- Brokers	6	0	0	
Winning Bids	Rp2.700 billion	No w	inner	
Competitive	Rp2.160 billion			
Non competitive	Rp 540 billion			
Coupon rate	12,00%			

Table 1: Supply: Government Issuance

As of this May, the country has started following some of the best practices where treasury bills settlement is concerned (see figure 4). The T+0 settlement is 25%, which makes the market liquid. The T+2 settlements is 52%, which makes market confidence increase.

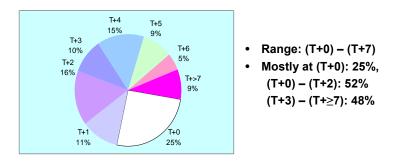


Figure 4: Settlement Time Distribution

#### BI policy on Surat Utang Negara (SUN)

Macro-economic stability cannot be sustained in the long-run without financial stability and this cannot be achieved without the development of the SUN market. Thus, BI pays a great deal of attention to SUN as a monetary instrument. Another name for government securities in Indonesia is State Debt Securities or Surat Utang Negara (SUN). Therefore, BI pays a great deal of attention to using SUN. Besides, helping create a benchmark for government bond pricing in the market, SUN is a crucial element for effectiveness in the Indonesian monetary operation and ultimately financial system stability. Indonesia has been trying to develop SUN ie the government bond market for monetary policy purposes. The measures are divided into contractionary and expansionary measures.

BI began issuing its own debt in the form of Bank Indonesia Certificates (SBI) – also called Sertifikat Bank Indonesia – to manage the money supply in 1984. The one-month SBI is currently auctioned weekly and the three-month SBI is auctioned monthly. FASBI is opened for seven days currently. It is determined a 100 basis points below the BI rate, which is currently at 10 %. As far as non-regular or the Fine Tune Contraction (FTK) Operation is concerned, under contractionary measures, BI has an FTK overnight, and recently for three days or five days and pre-determined FASBI for seven days.

BI has also fine-tuned expansionary FTA and BI will use SUN as underlying collateral in our facility. Phasing out the SBI using SUN started by implementing Treasury bills as a monetary instrument. On top of that, other SUN bonds may also be used as monetary instrument. So while we are waiting, the readiness from the issuer to issue the bills, then we will use the bonds, SUN, in due time as an instrument in our open-market operation.

BI also provides repos, or short-term loans to banks in exchange for SBIs. The SBIs act as collateral for the loan; when the loan matures, the bank repurchases the SBIs back from BI. The central bank phased out this instrument on August 22, 2005 and its function will be replaced by another expansion instrument called Fine-Tune Expansion (FTE). The central bank is still unable to provide reverse repos, since it holds a limited amount of government securities – just 7.4 trillion rupiah purchased in three operations in 2005 (April – August).

The Fasilitas Bank Indonesia (FASBI) deposit facility is BI's rupiah deposit facility, in which banks can deposit funds with BI for one to fourteen days and receive interest. BI previously offered only a seven-day FASBI with a set interest rate of 7.25%. Effective August 31, 2005 BI increased its FASBI interest rate by 100 bps to 8.5%. Under irregular operations, the FTO was introduced in April 2005 and is used on an "as needed" basis for both monetary contraction (FTK) and expansion (FTE) purposes. These instruments can be used for one to 14 days. The FTK rate is fixed by BI and its cap is the one-week FASBI rate. The FTE would be a short-term lending facility to provide liquidity: only SBI and government bonds can be used as underlying assets for this transaction.

BI also introduced a liquidity enhancing measure in the market, through an intra-day liquidity facility, also referred to as a short-term lending facility (FLI). This is a funding facility extended by BI to BI-RTGS member banks to resolve very short funding difficulties and uses government bonds are used as underlying collateral.

#### Summary of BI's Strategies to Promote the Government Bond Market

BI tries to enhance financial sector stability (FSS) be making sure that the bond market is not excessively volatile. To that end, BI established the Biro Stabilitas Sistem Keuangan. BI dedicated senior officers to learn how to achieve FSS.

- Legal framework: The standing appropriation and BI's role as an administrator and auction agent.
- Trading settlement and infrastructure. The BI-SSS enhancement.
- Development of Repo Market to enhance liquidity and efficiency.
- OMO instrument.
- The Master Repurchase Agreement, was signed by five banks on June 15, 2005 allows market players to undertake repo transactions more freely. The MRA does not include non-bank participants yet and is restricted to commercial banks. This is next on our agenda.
- Primary dealership: The existence of a primary dealership is crucial to the growth of the secondary market. Dealer selection is based on competency. This is a pending matter with the government and the finer points, the pros and cons, still need to be worked out.

We are also trying to interconect the BI-SSSS with the capital market to enhance market efficiency by bringing in STP processing.

BI believes that the development of the repo market is important. As far as BI is concerned, it will use SUN for open market operations. SUN in the BI portfolio will only be used on a repo basis. The following graphic shows the various benefits of a repo to market participants (see Table 2). The Central Bank is the last resort for dealers. Measures such as bond lending and short selling are there to promote the secondary market.

Table 2: Developing the Government Bond Repo Market

A well functioning repo market is indispensable to enhance the liquidity of the secondary market of government bond.

Market Participants	Repo as a	Description	How Important?
<ul><li>Dealers</li></ul>	Hedging Tool	<ul> <li>Dealer uses a repo as a hedging tool to make market</li> </ul>	➤ Without a repo, it is almost impossible for dealers to make market
<ul><li>Investors</li></ul>	Cash Adjustment/ Funding	► Open-end mutual funds adjust their position	▶ Able to adjust the cash position without selling a bond in a thin market
	Investment Instrument	► Long-term investors uses a repo as a investment instrument	➤ A bond held to maturity can be tradable in the market
	Leverage Instrument	▶ Able to creates a leveraged long position by purchasing securities with borrowed funds	▶ Able to amplify the return on capital
<ul><li>Central Bank</li></ul>	Monetary Operation	► The central bank uses a repo as the OMO	► CB can not only adjust the liquidity but also show the stance of the monetary policy to the market
	Bond Lending	► CB serves as a last resort for dealers	► Able to avoid a heavy squeeze of a specific issue

In conclusion, BI has identified controlling inflation as a key target on July 1st 2005. The central bank is dedicated to controlling medium term inflation by using interest rate as an operational tactic. Currently inflation is higher than expected. On October 3, the Central Bureau of Statistics (BPS) announced that YoY consumer price inflation rose to 9.1% in September 2005. Currently BI uses the "BI" rate as the reference rate for its one-month paper in the money market. In September, BI raised the reference rate by 50 basis points to 10 % in the market. In some other economies, like the central bank of Thailand, looks at the 14-day repo market. However, currently we are comfortable using the one-month rate as a policy rate. Using SBI and SUN will be in tandem in some time. In the meantime, as we are using SUN as an underlying open market operation. We are concerned the repo rate of SUN becomes our price. In its daily operation, BI is going to do focus on maintaining the corridor between expansion and contraction measures.

# Government Securities as a Fiscal Instrument and the Role of Debt Management Office

#### Ayu Sukorini

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What is the definition of government securities? Based on the law 24/2002, "government securities shall be commercial papers in the form of letters of indebtedness in Rupiah as well as in foreign currencies which payments of the principal and interests thereof are guaranteed by the Republic of Indonesia, in accordance with validity period thereof." The key point of that definition is the currency denominated that we issue and the assurance of the debt servicing payment by the Government.

What is the importance of the legal basis? As a legal appropriation for the Government to manage securities prudently, accountably and transparently, this legal basis will also give confidence to the investor for a number of reasons. All issuances are strictly for certain purposes mentioned in the law, all coupon and principal liabilities are covered in the annual budget, and the net issuance within a particular fiscal year should be approved by Parliament as part of the budget appropriation. And lastly trading of such securities shall be subject to market regulation and supervision.

Now to fiscal issues related to the Government securities. In the fiscal policy framework net issuance of securities within a certain fiscal year is solely for the purpose of financing the budget deficit. It means that there is no possibility of issuing securities for the budget free-financing, as is probably done in many other countries. Also all net issuances should be discussed and approved by the Parliament following all the budget cycles. All the proceeds of issuance go directly to the Treasury account at Bl. This means that the Government cannot use the proceeds out of the budget operation. Since it is part of the budget operation, it is subject to an audit by the Supreme Audit Body and shall comply with a Government accounting standard. Last but not the least it should support the achievement of fiscal sustainability.

The question then is what is the fiscal sustainability? A simple and clear definition is the ability of the Government to meet repayment and servicing its obligation. The best practice to measure fiscal sustainability is an overall balanced budget; the budget deficit should be less than 3 % of GDP and the debt to GDP ratio should be less than 60 %. This implies that the growth of debt doesn't exceed economic growth. Debt management contributes to debt sustainability by managing refinancing and other risks, and reducing cost of borrowing. In Indonesia, over time, both the GDP ratio and the deficit are decreasing. The debt to GDP ratio has come down from 89.1 % in the year 2000 to 56.2 % in 2004. Likewise budget deficit as a percentage of GDP has moved from -1.5 % in the year 2000 to -1.1 in 2004 (see Figure 5).

In terms of the amount of debt (see Figure 6) the total central government debt - securities and official borrowing - has moderately increased. The recent projection by the end of this year is around 1.300 trillion (USD 130 billion), split almost equally between foreign currency and the Rupiah.

0.0 90 80 -0.570 -0.7 -1.0 % of GDP [ % ] 5 😸 50 -1.5 -1.3 40 -1.5 30 3 -1.7 -2.0 20 10 -2.5 -2.4 2005 E 2002 2003 2004 -3.0 Debt to GDP Ratio (LHS) 2000 2001 2002 2003 2004 2005E 2006P Debt to GDP Ratio (% of GDP), **Budget Deficit Economic Growth** 

Figure 5: Fiscal Sustainability Indicator, 2000 - 2006

Source: Ministry of Finance



Figure 6: Magnitude of Debt

Source: Ministry of Finance

NB: The last two figures are a rough projection number that might change according to developments.

Budget Structure and Debt Financing: Recent trend shows that the financing of budget deficit is predominantly through borrowing, through the issuance of government securities, and this borrowing is increasing over time. While the overall budget deficit is decreasing over time, the net issuance of government securities is rapidly increasing. In 2004 it stood at 0.5 % (as a percentage of GDP) and is expected to touch 0.8 % at the end of 2005 (see Figure 7).

Financing Source: Non Securities vs. Debt Service relative to Revenue and Securities (% of GDP) Expenditure (% of GDP) 3.5 3.0 2.5 2.0 30 1.5 1.0 10 0.5 -0.5 2002 2003 2004 2001 by Revenues by Expenditures ■ Deficit ■ Securities - Net Non Securities - Net

Figure 7: Financing Budget Deficit Trend - 2000-2006

Source: Ministry of Finance

Increasing reliance on the market to finance our deficit may raise concerns about the country's indebtedness. But the question is how much room is available to reduce this debt? There may not be too much because the fiscal stimulus is certainly needed for the economy. The important point is that this debt should be managed properly and made accountable to a structured fiscal policy that is publicly disclosed. On a more technical front, the predictability of government cash flows is crucial in order to match the financing required and lowering the cost of raising such funds from the financial market. Last but not least the coordination among policy agencies should be strong to achieve macroeconomic stability and be conducive for the financial market to grow and develop properly. For sure, this kind of fiscal discipline is important in order to move towards fiscal sustainability.

#### Government Securities: Debt Management Issue

Any international best practice of debt management has primary and secondary objectives, both equally important. The main objective is funding the deficit in a cost effective manner and with a prudent level of risk. The second group of objectives deals with developing an efficient market for Government securities. But an important part of it is that there needs to be an information flow to policy-makers on costs, trade-offs and risks, and also share information on current and future liquidity needs.

In Indonesia, the objective of Government securities management is about minimising the cost of borrowing in the long-run while meeting the budget deficit financing requirement at a tolerable and manageable risk level. So in the policy framework we aim to do a number of things;

- Develop and enhance secondary market liquidity. This will be accomplished through infrastructure development, such as market intermediaries, and enhancing market transparency.
- Portfolio and risk management. Balance out the maturity structure, in line with government budget and market absorption capacity; reduce refinancing risk, mainly in the period of 2007-2009. Broaden investor base in order to increase demand and market liquidity.
- Strengthening coordination to support financial stability

This is how the Government manages the cost and risk trade-off when managing Government securities. The overall objective of debt management is achieved by;

- Achieving a balanced maturity structure.
- Broadening the range and the distribution of government debt securities.
- Effective selling operations.
- Efficient secondary markets, particularly for government securities.
- Co-ordination with monetary policy.

In managing the cost and risk daily, we move along the curve (see Figure 8). Each dot along the curve corresponds to a particular cost and risk at a particular level of debt. What we do is juggle the optimal combination between risk and cost. As a debt manager, it is a matter of choice. It depends on our risk tolerance and cost that we want to take.

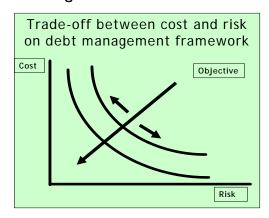


Figure 8: Cost-Risk Trade Off

Associated Risks with Government Securities: In practice the consideration is even more complicated due to the various risks associated with government securities. We believe there are five kinds.

- Fiscal Sustainability Risk: due to substantial debt servicing that can be caused by fiscal distress in a particular fiscal year.
- Refinancing Risk: due to an unbalanced maturity structure of the total debt securities portfolio.
- Market Risk: These are of two types;
- Interest Rate Risk, due to the variable rate component of debt portfolio being sensitive to interest rate movements.
- Currency Risk, due to the foreign currency component of debt portfolio, which is sensitive to currency movements.
- Liquidity Risk: the risk associated with poor cash and liquidity-management within the government.
- Operational Risk: risk associated with daily debt-management operations.

These are all equally important but probably the refinancing risk is the major one. If we cannot handle this risk it will jeopardize our fiscal prudence. Why is this major one? It is simply because we have to pay back our debt at very significant amount in a very narrow time horizon.

The debt profile shows that by 2006, the government has to pay back about 26 trillion of debt. It doesn't seem much but is a heavy task because at the same time we also have to finance the

fiscal deficit of around 25 trillion. Simple mathematics indicates that we have to issue new securities of about 51 trillion (USD 5 billion), which is quite substantial amount. The refinancing risk is probably even higher because on an average 40 trillion needs to be re-financed.

Figure 9: Profile Debt Securities, as of September 01, 2005

GOVERNMENT DEBT SECURITIES	NOMINAL	% of GDP	
I. Government Domestic Bonds			
1. Fixed Rate 1)	IDR 186,061.02	7.09%	
2. Variable Rate 1)	IDR 219,337.10	8.36%	
Sub Total	IDR 405,398.12	15.45%	
			Notes:
3. Bonds to Bank Indonesia 2)	IDR 220,661.87	8.41%	1) Tradable
Sub Total	IDR 220,661.87	8.41%	2) Non-Tradable
			3) Nominal in billion rupiah
otal Government Domestic Bonds	IDR 626,059.99	23.86%	Assumptions:
			1. Exchange Rate (IDR/USD) = 10,345
otal Government International Bonds	USD 2.00	0.79%	(Source: Bloomberg on Sept 1, 2005)
OTAL GOV'T DEBT SECURITIES	IDR 646,749.99	24.64%	2. GDP 2005 = Rp.2,624.3 trillion
JIAL GOV I DEBI SECURITIES	IDR 646,749.99	24.64%	2. ODI 2000 – Rp.2,024.5 trimori
45			
40			
35			
30			
. 25			
20			
30 . 25 20 . 15 . 10	1 1 1		
10	1 1 1		
5			

Source: Ministry of Finance

Int. Bonds

□VR

■FR

2005

3.03

2006

11.77

14.55

2007

16.00

23.50

2008

39.36

2009

13.68

2010

2011

4.48

20.01 29.80 26.03 25.75 23.71

Figure 10: Debt Securities Structure as of September 1, 2005

2012

1.07

2013

2014

10.35

11.41

6.75

2015

10.35

17.45

5.00

2016

18.32

5.33

2017

16.82

3.00

2018

17.92

1.56

2019

22.72

2020

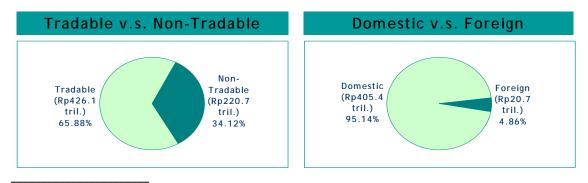
25.32

1.05

Total

219.34

186.06



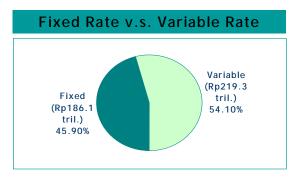
Source: Ministry of Finance

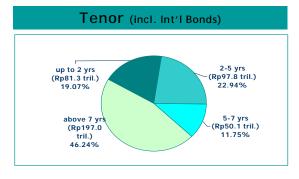
The following two tables give you a snapshot of our debt securities structure. The tradable component at Rp 426.1 trillion is dominant and constitutes almost 66 % of the entire debt structure. This component will potentially increase due to the net additional debt issuance to meet the financing requirements. Most of the tradable securities are in domestic currency (about

95%) and so it is important to develop the domestic market to be efficient and liquid in order to reduce the cost of debt issuance.

The relatively balanced interest rate composition of tradable securities mitigates the interest rate risks and makes the interest rate burden more predictable. However, the average term maturity needs to be longer in order to achieve higher fiscal sustainability and at the same to mitigate the refinancing risk.

Figure 11: Debt Securities Structure (cont.) as of September 1, 2005





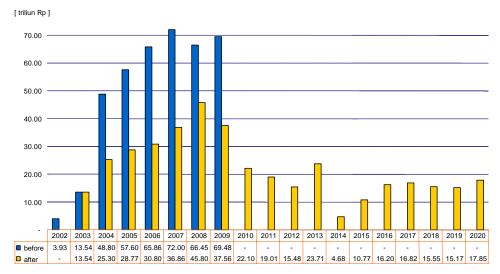
Source: Ministry of Finance

Debt Management Strategy: Currently the government already has a debt strategy in place.

The objective, as mentioned earlier, is to finance the debt in a prudent manner. The current situation is that the net issuance is increasing and we need to get the right fix of floating and fixed rate of interest. And then we need institutional demand to support the net issuance.

As a risk management measure, reprofiling was executed in November 2002 and February 2003. It reduced the maturing bonds in the period 2004-2009 and extended the maturity profile towards 2020. This increased the average maturity of the government bond portfolio from 4.4 years to 7.8 years (see figure 12).

Figure 12: Re-profiling: Reducing Refinancing Risk



Source: Ministry of Finance

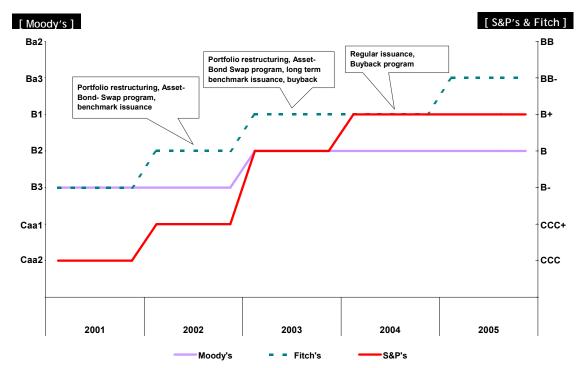


Figure 13: Indonesia's Credit Rating Ladder

We believe that these decisions related to debt management contributed to the stepping up of Indonesia's credit ratings.

Primary Market Status and Problems: One of the main operations of securities management is issuing primary market securities. The Government has already conducted 22 auctions, 3 of which were rejected. 12 different new series were issued. The maturity was between 2 – 15 years, but mostly above 7 years time to maturity at the time of issuance. Coupons rates were market determined and carried fixed coupon ranging from 9,5% - 15%. The tenor selected to meet the objective of debt management. The market preference and market depth were also considered. We noticed that the competition has been significantly increased. The proportion of non-competitive bidders is declining. We have also tried to put into practice what other countries have done on conducting issuances on a monthly basis, with the indicative schedule of issuance pre-announced. But some problems still persist in the primary market.

#### These are:

- Pre announced calendar of issuance is still not long enough.
- Market is still inefficient: There are indications of market cornering. The Price (yield) widely diverges among submitted bids.
- Capability to assess genuine market demand and appetite needs improvement.
- Have no genuine benchmark issue (such as 5, 7, 10, 15 etc.).
- The participation of buy and hold investor is still low.
- Market capacity to absorb is limited.

Secondary Market Facts and Problems: The secondary market activity is increasing over time. It was mainly supported by the declining interest rate environment and broadening investor base (see Figure 14).

5,000 200 4,500 180 4,000 160 3,500 140 3,000 120 2,500 100 2,000 80 1,500 60 1,000 40 500 20 SOND SOND JFMAMJJA J F M A M 2002 2005 2003 2004 ── Volume (billion rupiah) - LHS ── Frequency - RHS

Figure 14: Secondary Market: Average Daily Trading

Source: Ministry of Finance

Table 3: Secondary Market: Liquidity by Maturity

		Frequency				
Month	< 5 y	5 - 7 y	> 7 y	< 5 y	5 - 7 y	> 7 y
Total 2003	212,100,326	88,127,802	37,470,041	7,430	3,346	1,564
% of TOTAL	62.81%	26.10%	11.10%	60.21%	27.12%	12.67%
0004.84	4= ==0 40=	47 700 447	44 500 540	-44	004	044
2004 March	17,559,485	17,588,445	14,526,510	741	864	644
June	23,270,108	4,277,300	5,264,798	1,008	345	336
September	13,623,884	5,444,519	18,822,837	864	422	1,396
December	15,691,015	16,620,643	15,731,200	851	863	928
Total 2004	208,123,053	150,208,041	155,205,174	10,134	8,023	8,935
% of TOTAL	40.53%	29.25%	30.22%	37.41%	29.61%	32.98%
2005 January	27,109,180	14,251,519	19,648,102	1,197	927	1,234
February	21,475,384	9,865,454	14,699,448	893	597	944
March	33,247,822	8,637,680	14,757,969	1,400	465	727
April	52,607,107	6,158,758	13,924,971	1,556	484	691
May	23,587,128	5,845,638	12,136,325	955	445	619
June	26,140,870	8,808,448	14,141,414	1,026	335	464
July	22,186,537	4,302,242	11,677,978	850	189	235
August	36,654,122	10,078,516	12,104,504	1,370	452	362
Sept. 16	41,798,203	7,398,969	7,037,754	1,539	296	228
·				•		
Total 2005	284,806,353	75,347,224	120,128,465	10,786	4,190	5,504
% of TOTAL	59.30%	15.69%	25.01%	52.67%	20.46%	26.88%

Source: Ministry of Finance

The liquidity has moved from short-dated to long-dated in the lower interest rate environment. In contrast, in uncertain interest rate environment liquidity is greater in the short end.

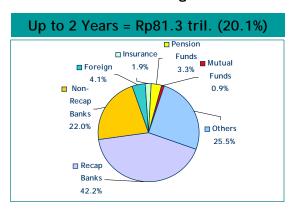
The year 2000 exchange offer was a catalyst in creating liquidity. The total secondary market ownership was up from Rp 398.92 trillion in 2000 to Rp 403.84 trillion in August 2005. Even though it is still dominant, banking sector ownership is decreasing gradually. The market is open to foreign investor and there investors have appetite for domestic issues, but have to be more cautious. From nothing in the year 2000, foreign ownership in the secondary market is up to 4.23 % in August 2005 (see Figure 15). The current ownership by maturity is the highest in the above 7 year category and the lowest at 12.4 % in the 5 - 7 years category (see figure 16).

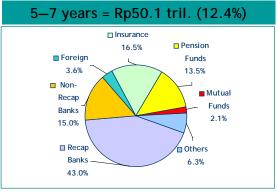
Figure 15: Secondary Market: Ownership, 2000 - August 2005

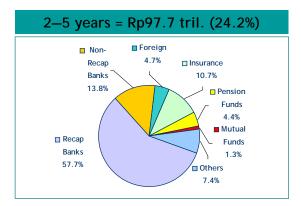
End	of	Recap Bank	Non-Recap Bank	Insurance	Pension Fund	Mutual Fund	Other Domestic	Foreign Investor	Total Outstanding (trillion IDR)
2000	Dec	97.80%	1.74%	0.26%	0.00%	0.01%	0.19%	0.00%	398.92
2001	Dec	90.41%	6.29%	0.95%	0.04%	0.52%	1.80%	0.00%	394.07
2002	Dec	84.91%	3.51%	1.65%	0.09%	9.06%	0.29%	0.48%	394.06
2003	Dec	74.82%	7.52%	4.27%	0.98%	10.60%	0.26%	1.55%	390.48
2004	Dec	63.61%	8.41%	6.78%	4.11%	13.52%	0.88%	2.69%	399.29
2005	Mar	61.00%	9.21%	7.02%	4.67%	13.06%	0.74%	4.31%	408.72
	Jun	59.95%	12.31%	7.42%	4.94%	9.34%	2.46%	3.58%	404.98
	Aug	60.91%	12.61%	7.60%	5.16%	6.61%	2.88%	4.23%	403.84

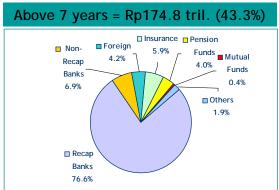
Source: Ministry of Finance

Figure 16: Current Ownership by Maturity









Source: Ministry of Finance, ownership Position as of August 31, 2005

However, the secondary market is plagued by a number of problems.

- Lack of liquidity: There is a thin, one-way market with no market making mechanism.
- There is a wide spread between the bid offer and price quotation spread. The participation of direct issuers to stabilize the market is limited and rigid.
- Investor perception and behavior: Securities are still viewed as substitute for deposit and a negative market instrument puts pressure on the market.
- Market infrastructure is lacking, which causes liquidity and efficiency problems. The implementation of the repo market is essential. Also there is an absence of a derivative market (Futures Market, Forwards, and Swap. There is also an absence of short selling and securities lending and borrowing for certain objectives.
- Market microstructure should be rethought. There needs to be an efficient trading system to support price discovery mechanism and an efficient registration, clearing and settlement mechanism.
- Tax is still the obstacle to an efficient market for different types of investor. It creates an un-equal level playing field.

In conclusion the Government has several challenges ahead. The trend of net issuance as a main form of deficit financing will increase during next few years but it is not supported enough by the market capacity to absorb. The Government needs to develop market infrastructure properly to enhance market liquidity and efficiency. This will lower cost of borrowing over the time. There have to be a broadening range of instruments in order to meet market needs and broaden investor base. Continuously communicating with different segments of the financial industry will strengthen market confidence and gather market preferences and perception as feedback in return. Good coordination among policy makers and regulators is important to ensure market signals are clear and correct. Last but not the least there has to be an effort to increase retail participation in the market.

### Government Securities as Investment Opportunities

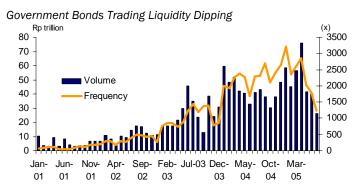
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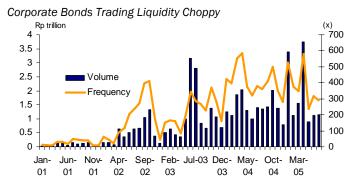
Executive Vice President Head, Economic and Fixed Income Research Mandiri Seckuritas, Indonesia

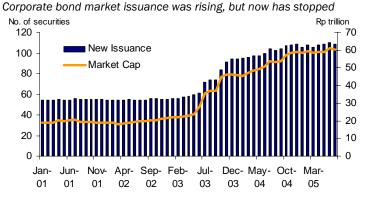
#### Recent Developments in the Bond Market

Until very recently, a strong demand due to low deposit rates and high liquidity in the banking sector had increased liquidity in the Indonesian Rupiah bond market. These factors have evaporated recently as the market is subject to selling pressure. The selling pressure started from mutual funds and has now spread to banks. Pension funds are holding on so far. As a result, corporate have been unable to tap the bond market as an alternative funding mechanism (see figure 17).

Figure 17: Domestic IDR Bonds. Liquidity Decline





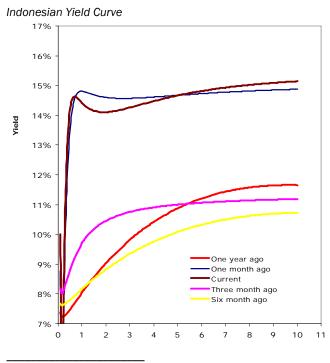


Source: CEIC

The Indonesian yield curve has shifted up tremendously on the back of selling pressures in the secondary market. Recap banks and mutual funds are the net sellers since the beginning of 2005 due to: (see Figure 18)

- Even tighter monetary policy in the banking sector (higher interest rates and higher reserve requirement ratios).
- Redemption in the mutual funds industry forced fund managers to unload their government bonds portfolio in the first place due to liquidity reasons.
- Yields on middle to long-term government bonds are stabilizing at 15 % to 16 %, as investors seem to have priced in inflation uncertainties and policy issues, going forward.
- These levels might persist until the end of the year 2005 due to lack of demand from the mutual fund industry in the government bond market.
- Bank Indonesia has bought Rupiah 10.50 trillion to help the secondary market but selling pressures continue to maintain prices at the current levels.

Figure 18: Yield Curve Movement



Source: Mandiri Sekuritas

Figure 19: New Equilibrium of Government Bond Prices



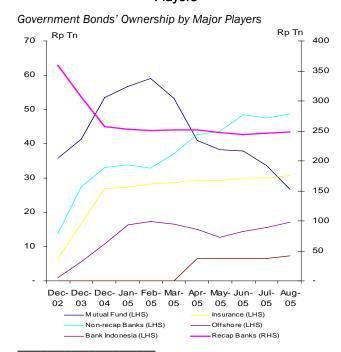
Source: Mandiri Sekuritas

#### **Losing Mutual Fund Support**

The government bond market has lost a big player in terms of mutual funds. The mutual funds boom had overwhelmed the bond market until March 2005, when the interest rate trend started to reverse. The mutual fund holding of government bonds has dropped 53 % since January 2005. Corporate issuers have put their issues on hold due to lack of demand and a high coupon rate. The banks that remain in the market are recap and non-recap banks, pension funds, and offshore funds.

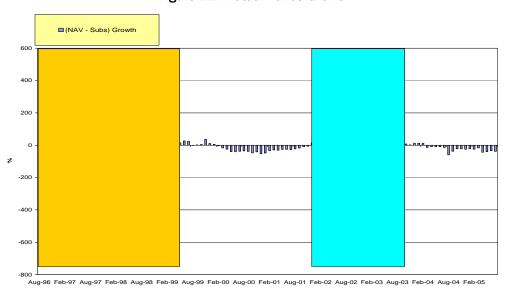
By subtracting subscription growth from NAV growth, we find that NAV growth due to market returns peaked in November 2002 and has been in decline ever since. Hence, the recent rise in mutual fund NAVs has been driven by subscription and not growth in asset values (see figure 21).

Figure 20: Government Bond Ownership by Major
Players



Source: CEIC

Figure 21: Mutual Funds Growth



Source: CEIC, calculated by Mandiri Sekuritas

Recently, the volatility caused by mutual funds has created the impression that government bonds are a very risky investment proposition. Government bonds should provide risk-free rate for financial market but credit risk is mistaken for market risk. A fund industry whose NAV rise is due to rise in subscription is very susceptible to correction by redemption. The rise in NAV due to

subscription gains suggest a herd mentality in investors, who seem to be investing without actually calculating long-term gains. Mutual funds are long-term investments but the traffic data in the Indonesian markets suggests a short-term view (see figure 22).

#### **Future Outlook**

In the current bearish market, the appetite for government bonds in the primary market has declined. The Ministry of Finance (MOF) cancelled a few auctions this year due to possibly high yields. However, it might become inevitable for the MoF to accept higher yields as the government relies very heavily on government bonds to fund the budget deficit. The recent move to access the offshore market is a good idea, as there is huge liquidity offshore and Indonesian paper benefits from scarcity value. In addition to fulfilling the budget requirement, selling bonds offshore also adds to foreign exchange reserves. However, the government should include the offshore market in their regular funding strategy and the offshore market should not be relied only as a stopgap measure (see figure 23).

Figure 22: Increasing Market Risk

Mutual Funds' Holding of Government Bonds vs. the Price of FR02

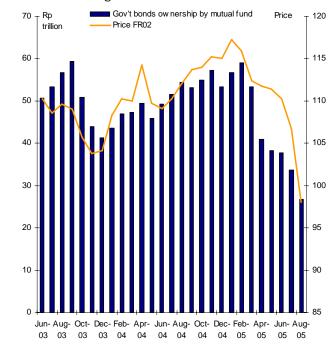
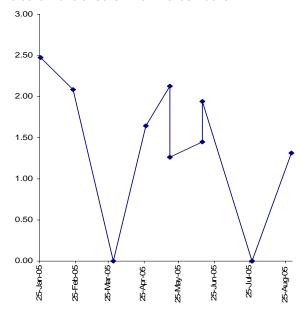


Figure 23: Lower Appetite for New and Re-opening Issues

Bid to Cover Ratio of Government Bonds' Auction



Source: CEIC and Mandiri Sekuritas

#### The Domestic Bond Outlook

**Low Liquidity:** Until a few months ago, trading liquidity was being maintained but with the latest policies from the central bank, liquidity in the financial system has dried up. This coupled with the continuing selling pressure from the mutual fund industry has resulted in several government bond yields shooting up. One example is the FRO4 (maturing in Feb 06) whose yield shot up to 20 % but since then has settled down to 13 % to 14 %.

**Higher Reliance on the Market**: In the longer term, government bonds will have a supply shortfall. However, the government is increasingly relying on the government bond market to fund its budget deficit. Therefore, the ability of the government to maintain fiscal prudence should be monitored.

**Issuance Risk:** With the increasing selling pressure and liquidity drain, upcoming government bonds and corporate bonds are at risk. The overall financial situation needs to improve before the market's ability to absorb these issues is restored.

**Stability:** The hike in interest rates will further deteriorate bond prices but over-done yields in short-term rates should provide buying opportunities. Stabilisation can start when there is a reversal in interest rate hikes, probably by Q2 2006, after the Fed stops its rate hike and domestic inflation pressure have crested. In the longer term, the issuance of Government bonds is mainly for refinancing, not to plug the fiscal deficit. Recently some high-ranking Government officials in Indonesia, including someone in the Ministry of Finance, said that they were very disappointed that they could not issue bonds to plug the higher fiscal deficit due to high oil prices. That is a good thing, and indicates fiscal discipline in the market.

Since 1999 until now the Ministry of Finance, especially DPSUN with the cooperation of Bank Indonesia (BI) have managed to create an atmosphere where buying government bond should be as market-friendly as possible. Therefore, in terms of issuance, calendar, size, and pricing, the communication between the authorities and the market is very close. In that reference, this fiscal discipline is a good thing.

Unfortunately, in comparison to many countries, the position of pension funds, insurance companies and other market players is not very big in this market. The main player, even in the near future, will probably be banks, by virtue of them having the largest assets. The inter-bank market in Indonesia has not returned to what it was before the crisis. From one perspective, it is a good thing that it did not, because the Government bond market is playing that role of distributing liquidity. On the other hand, it is a great thing if the mutual fund market went up to a 100 trillion rupiah and that the participants are mainly individuals. This means that retail investors are buying government bonds through mutual funds. Unfortunately, this market has since then collapsed.

To summarize the current situation in the government bond market;

- The liquidity and the pricing of government bonds have declined recently due to a sell off by mutual funds and decline in banking liquidity.
- With a higher reliance on the market, the government now faces an issuance risk in the domestic market. As do corporate borrowers.
- The market has priced in higher inflation and a further rise in domestic interest rates, with the SBI reaching 12 % by the year-end. Hence, there are still some buying opportunities in government bonds. This has resulted in a decline in several short-run series yielding 20 % and now settling at 13 % to 14 %.
- Stabilizations will occur once the Fed stops its interest rate hike, domestic inflation, the rupiah stabilizes, and there is some predictability of key economic variables going ahead.
- In the end, there will be scarcity value in domestic and offshore government bonds.
- For a healthy, functioning market, hedging tools and a wealth of government bond availability, such as inflation-indexed bonds, SPNs etc.

# **Q&A Session Summary**

Moderator:

#### Freddy R. Saragih

Director, Investment Management and Research Bureau Capital Market Supervisory Agency (BAPEPAM), Indonesia

- The time-frame for the introduction of the derivatives market to enhance liquidity is based on the development of the market itself. For sure, the Indonesian market needs a futures market but this needs an agenda, a proper framework, and a surveillance mechanism.
- Too much short-term liquidity is a problem in Indonesia. The economy needs long-term investments, such as mutual funds, which in turn invest in government bonds. Unfortunately, this has not happened. The mutual fund industry has lost some of its confidence and is dealing with massive redemptions. This is a very critical situation and somehow the confidence needs to be brought back into the market.
- Investors are getting more risk-averse and this is not helping either the bond market or the economy at the end of the day. Funds lying in bank deposits to be moved back into long-dated instruments. Perhaps, participation in retail bonds need could be one way. Another method is to bring in funds with structures that require a longer-term investment and not just the conventional funds where investors can redeem anytime.
- The responsibility of infusing confidence back into the mutual fund industry is with the participants on the supply side, the investors that make up the demand side, and the regulator.
- There are times that BI interjects liquidity in to the system and pulls it out almost simultaneously through tools like SUN (Surat Utang Negara/State Debenture) and SBI (Sertifikat Bank Indonesia/Central Bank Certificat). On October 6, the GOI sold USD 1.5 billion in dollar-denominated global bonds comprised of USD 900 million in 10-year bonds at a yield of 7.6% and USD 600 million in 30-year bonds at a yield of 8.6%. On October 24, the GOI bought back Rp 2.5 trillion (USD 250.5 million) worth of high-interest government bonds maturing in 2007 2009. BI monitors the impact of liquidity on a daily basis and pulls out extra liquidity if necessary. In this manner, BI tries to maintain stability in the financial system. This function of intervention by BI is not fully optimal as yet and the central bank is working towards it.
- As mandated by law BI will do everything necessary to maintain stability in the mediumterm, including keeping inflation in check.
- Both banks and non- banks need to be nurtured in the economy for over all financial system stability.

Global Perspective: Effective Supervision Mechanism and Government Securities

### Development of the Bond Market in Hong Kong (China)

lan Johnston

Advisor, Securities and Future Commission, Hong Kong (China)

#### **Historical Perspective**

The development of the bond market in Hong Kong (China) is characterized by three drivers. The first was the building of a very modern, capable and extendable infrastructure. Two, the Government did step in to facilitate and stimulate the bond market deliberately. Three, the regulator, the Government and market participants worked together fairly closely to identify any impediments hindering the development of the bond market.

Before 90's, there was virtually no bond market in Hong Kong (China). Secondary market liquidity in Hong Kong's local bond market was very low and market infrastructure highly underdeveloped. Since 90's there have been a number of measures taken to develop the markets. A highly modern and capable infrastructure was created, market-making was developed, the retail bond market was deliberately facilitated and a fairly clunky piece of regulation was modernized. Other measures included simplifying the bond-issuing procedures and relaxing marketing regulations. The Hong Kong Monetary Authority (HKMA), the Central Bank, played a significant role, as did the Securities and Future Commission (SFC). The role of the SFC was to examine whether the regulatory system was tuned to the debt market and identify areas for improvement. But probably the HKMA played the bigger role because it created the infrastructure through the following measures, which allowed the market to develop:

- Introduction of the Exchange Fund Bills and Notes (EFB/EFN) Program by the Exchange Fund of the HKMA in 1990. The Exchange Fund Bills and Notes Issuance Program ensures the supply of a significant amount of high quality Hong Kong dollar debt paper, which can be employed as trading, investment and hedging instruments.
- Establishment of the Central Money Markets Unit (CMU) in 1990. It provides computerized clearing and settlement facilities for Exchange Fund Bills and Notes. In December 1993, the HKMA extended the service to other Hong Kong dollar debt securities. It offers an efficient, safe and convenient clearing and custodian system for Hong Kong dollar debt instruments.
- Extended the market-making system for Exchange Fund papers to debt securities issued by other statutory bodies.

One of the primary reasons for the slow development of the bond markets was that the Government of Hong Kong rarely had any deficit financing needs, the banking sector was well developed, and efficient equity markets provided corporations with easy access to funding.

But since then the Hong Kong bond market has developed well. By December 2004, there were HK\$608 billion issues outstanding, compared with HK\$355 billion at the end of 1997. Hong Kong (China) is now a major regional centre for the arrangement and trading of foreign currency debt by investment banks. The HK stock exchange has listed about 164 local and international debt issues. The Exchange Fund is the largest issuer of new debt (55% in 2004). Non-Multilateral Development Banks have the largest share of outstanding debt (35%), followed by authorized institutions (24%) and the Exchange Fund (20%).

#### **Investor Profile**

In the past, investors were mainly institutional investors and high net worth individuals. However, in recent years, retail investors have been specifically targeted and the retail market has now developed to a reasonable extent. In fact, there are a large number of issuers, particularly some of the quasi-government issuers that target their issues specifically at retail investors. Infrastructure builders such as the Mass transit Railway Corporation, the Calwin and Canton Railway Corporation have issued bonds specifically for the retail market.

#### Regulatory System

Any regulatory framework is about having fair, orderly and transparent markets. Regulators tend to be less concerned with infrastructure and more with investor protection, particularly for retail investors, at the same time allowing for sophisticated markets to develop. Hong Kong (China) does not have a tailored debt or bond market regime. Its regime falls under the aegis of the fundraising provisions of the companies' ordinance, which mainly deals with equity issues. Over the past, the Commission has made attempts to make the provisions in the companies ordinance work for both debt issues and equity issues.

Bonds are subject to regulations by the stock exchange as well as the SFC. Trading of bonds listed on the stock exchange is regulated by both the stock exchange and the SFC. Trading of bonds on Automated Trading Services is regulated by the SFC. Trading of the Inter-Bank Exchange Fund Bills and Notes market is regulated by the HKMA. There is 160 or so debt issues listed on the exchange. Although, compared to countries like Australia, trading is very thin. This is because the retail market thinks of bond issues as term deposits, and therefore most bonds are held to maturity. Trading over the counter is really a non-regulated space. Like Australia, Hong Kong (China) too licenses the issuers and supervises the overall systemic impact of the market. In recent years, the SFC has taken a number of steps to specifically develop the debt market through a three-phased approach.

**Phase 1** – The first phase tried to achieve some quick wins, simple changes in the Companies' Ordinance provisions made by the regulator to facilitate the debt market as well as the equity market. It aimed at adjusting and refining the legal framework to facilitate offers while ensuring satisfactory standards of investor protection. Phase I, completed in December 2003, had three parts to it.

- Disclosure Aspects: The content and manner of publication of "awareness" and "summary disclosure" materials relating to an offer of shares or debentures made by a prospectus.
- Prospectus Guidelines: Rather than having a specific prospectus for every issue, there
  was one program prospectus introduced which could be updated annually. Then the
  specific issue prospectus could be a much shorter document.
- The adequacy for registration purposes of faxed copies of experts' consent letters and bulk print proof prospectuses.

There were also two main exemptions given to issuers as a part of the reform process.

In the first exemption, prospectuses which offer listed debentures (bonds and other debt securities) were exempt from content requirements which are the same as or similar to equivalent requirements under the Listing Rules and others that is considered irrelevant for investors or unduly burdensome for issuers.

The second exemption relieves prospectuses that offer non-listed debentures from content requirements that are considered either irrelevant for investors or unduly burdensome for issuers. Essentially, what this means is that there is a general exemption given for anything that was considered irrelevant for investors. For example, fund-raising provisions would normally require a summary of a memorandum and articles to be included in the document. Since it wasn't considered important for debt issuers it was taken out.

Phase 2 – Phase two just followed a few months after the first phase and involved legislative change to the prospectus regime. It provided a statutory backing to the initial initiatives and removed a number of issues from the prospectus provisions completely. For example, issuances to sophisticated investors, depending on the size of the issue, there may be no need for a prospectus. In all, there were 12 new exemptions from the prospectus regime, a new advertising regime for public offers and increased scope for use of the SFC's exemption power. This phase was completed in December 2004.

**Phase 3** – This phase is on currently and involves a comprehensive review of the overall fundraising provisions. When completed, it will completely overhaul Hong Kong's prospectus regime.

In conclusion, a bond market can only develop if both economic and market underlying drivers exist. Governments can only play a facilitation role. Independent regulators like the ASIC and the SFC try and make sure that no obstacles exist for market development but cannot always go out and actually promote the market. The job of market promotion belongs to others. A regulator's job is to allow the market to operate in a fair, efficient and orderly way and ensure adequate protection to investors.

## Effective Supervision Mechanism for Government Securities

**Andrew Crain** 

Director, International Relations ASIC, Australia

To ensure market integrity and confidence, the attributes efficient, fair and orderly, must apply to all markets, regardless of its geographical location and size. However, the methods to achieve a regulation with these attributes depend greatly on the traditional market structure at the time and the types of products on offer.

Traditionally, securities markets focus on equities markets rather than bond markets. Understanding this difference is important. Equity is indicative of a share in the company and the company's ability to draw profits, whereas bonds are simply a return of capital with interest payments. So the two different kinds of products need to be managed differently. Yet, bond markets are increasingly moving towards structured securities that are potentially drifting into equity themselves, or have certain facets of equities. So the approach to regulation of bond markets does need to converge some-what with traditional regulation in equity markets.

Regulation also needs to have different approaches to primary markets and secondary markets. In the case of primary markets, the product, the price and the agenda is controlled directly by the Government. The Government decides the direction the market heads in. If one were to apply the earlier-mentioned attributes of efficient, fair and orderly, it's important to keep in mind that perspectives might differ. From a Government perspective, efficiency would mean source of funds. From a market perspective, efficiency would mean the existence of a benchmark yield curve and the ability to compare different kinds of products. In the secondary market, market forces determine the structure of the market, which the players are, how big they are, who has a percentage of it and where the trading takes place. Unless of course, the Government imposes some form of uniform methodology on trading. The power within the market can move between different places, between pension funds, banks and investment firms, depending on the market structure and conditions.

The following figures (see Table 4) indicate the different perspectives of what efficiency, fairness and orderliness can mean in a specific market. There are a lot of environmental issues that also need to be considered, such as the level of trading within the market, the complexity of the products. There are few perfectly functioning orderly and efficient markets depending on which side of the fence you are on. However, when attempting to build an efficient market system, it is important to actively consider the perspectives of all market participants.

Efficient	Fair	Orderly		
Source of funds	Competitive auction	Known process		
Investment vehicle	Equal access	Checks & Safeguards		
Benchmark yield curve	Pricing methodology	Reliable settlement		

Table 4: Primary Market and Secondary Market

Efficient	Fair	Orderly			
Known process	Access to trading	Price discovery			
Reliable data & prices	Pricing methodology	Benchmark – yield curve			
Settlement	No abusive behaviour	Checks & safeguards			

Table 5: Secondary Market

#### **Australian Perspective**

The Australian Government over-time ran substantial budget surpluses. That caused a real problem for the bond product because investors lose the products that they have been investing in, but the market also loses its entire bench mark yield curve. At the time there was a lot of lobbying that the Government should continue to issue bonds even when the money is not required for financing. This is an issue that needs careful consideration. An economy needs fiscal restraint and it's prudent to say that the Government should not flood the market with bonds. But it is equally important to develop a deep bond market. Indeed, Governments need to plan the maturity of their issuances, so that it has a kind of bouncing effect on the market. This is important perspective from the other side of the equation, because it becomes quite a problem if the market doesn't have an adequate Government bond market.

Does Australia have a tough approach to regulation? Certainly, the regulating entities would disagree. According to some critics Australia needs tougher restrictions on trading, particularly in areas of reporting. But essentially it remains an open question. The Australian bond market has been around for several years. But true regulatory involvement occurred in the mid nineties. The Commission concentrated its energies on three specific tasks - participants, structure and transparency. There was no retail participation, although there was a huge amount of participation from mutual funds. In that sense there was indirect retail participation.

As far as the structure of the market is concerned, there was no evidence of market integrity issues in the Australian market. Almost all trading was over the counter; several bonds were listed on the Australian stock exchange but very little trading occurred on the exchange. Transparency was a real issue back in the nineties. Pre-trade pricing and post-trade reporting were both unsatisfactory. The industry itself was keen on initiatives for further development of reporting. The government and the ASIC were comfortable that focusing on these three pillars would adequately satisfy regulation needs.

The biggest change was the Financial Services Reform Act (FSRA) introduced in 2001, which focused on licensing. All participants in the bond market were licensed and regulated by ASIC directly. The ASIC also licensed market operators but with over counter trading being the predominant form of trading, it was difficult to determine who actually operated the market. Yet, there are some licensed market operators in the Government bonds industry which are regulated by the ASIC. It would be a fair assumption that the Commission has focused on regulating behavior and not on having transparency, so transparency remains an issue.

The Australian market place is divided between those who provide services and those provide market facilities. The Australian Securities and Investments Commission (ASIC) has been able to formulate the over the counter market into something that can be described as a "contained market place."

The Australian marketplace places a great deal of responsibility on the operator of that market, to perform what in essence would be a self-regulatory approach. Local banks and brokers have formed a partnership to create an infrastructure to provide an electronic trading platform. The

argument to the ASIC is that this is simply a communication platform and therefore should not be regulated. The ASIC has a different view and did enforce certain rules in order to maintain fairness, orderliness and transparency in the market place. Therefore, the ASIC has chosen to regulate an unregulated space.

On the issue of transparency, a discussion paper has just been put out this month on the issue of transparency in the secondary markets. There are various ways to discuss the issue, are we looking at transparency in terms of the risks an investor is facing in making an investment (the issue of credit ratings and the likelihood of the investor being re-paid. Or are we looking at pre-trade transparency, where an investor can be sure that the price being offered is the current market price. Or are we looking at post-trade transparency?

In terms of the risk facing the investors, the regulator can push disclosure for transparency and feel comfortable with that. However, the pre-trade price discovery is a difficult one to handle, because one is dealing with over the counter markets. As far as post-trade transparency is concerned, the Australian markets have resisted quite strongly to post-trade reporting. This is an on-going discussion at the moment and eventually there will be some form of price reporting in the future.

But the more important question here is how quickly the trades will be reported. Here it is important to bear in mind that bond transactions are illiquid but very large-sized, so if the market has to report trades right away – by the end of day— then it is not possible to manage the risk adequately.

In conclusion, one opinion is that regulators should be independent and not progressive or promote the market too aggressively. But regulators do need to sit down and work out very clearly and very simply the protocols for sharing information in that space. One of the developments in Australia is that when the legislation in the securities market was being changed, the Bank of Australia had a key role to play in the financial stability of this market place. The ASIC does promote financial stability but with the new legislation, the market will formally recognize the role of the bank in that function.

# Effective Supervision Mechanism on Government Securities – A Singapore Perspective

Lee Chuan Teck

Monetary Authority of Singapore (MAS)

#### Singapore Government Securities Market Structure

The structure of the SGS market is like the US market, particularly in two areas; the role of the Monetary Authority of Singapore (MAS), the Central bank, and the role of the primary dealers. The MAS plays the role of the intermediary between the government, which is the issuing authority and the market. Therefore, the MAS functions both like a debt management office as well as a fiscal agent. The MAS issues the bonds, does the book-keeping and appoints the primary dealers. The body also plays the role of a mediator between market participants (see figure 24).

There are 11 primary dealers in Singapore with a number of obligations. It is their responsibility to contribute to the development of the SGS market and related interest rate markets. They underwrite every SGS issue. They create liquidity in the secondary market by providing two-way quotes, regardless of the market condition. They are entitled to a higher non-competitive tender limit and overall allocation limits at SGS auctions. All income derived from SGS trading is tax exempt.

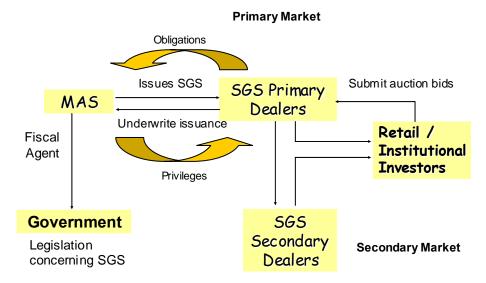


Figure 24: SGS Market Structure

#### Rules of the Government securities market:

There is an overlaying government securities regulation, registered in Parliament. This piece of regulation determines the overall structure of the SGS market, the primary dealership structure and so on. Just below this layer are the rules and practices of the SGS market. This second layer gives the common basis for market participants to transact with each other. The rules and practices are not enforceable by law, but are accepted as industrial practice and are self-regulatory rule in nature. If market participants do not obey these rules they could be ostracized

over time. The next layer is guidelines issued to specific players in the market, such as primary market and secondary market dealers. The repos code of best practices comes under this category. Once again, these guidelines are just that and not enforceable by law. But if flouted, the MAS can suspend or revoke dealership licenses. Regulation in the government bond market is often used in the broad sense. As mentioned earlier, some guidelines are enforceable by law but some serve as mere guidelines. Nevertheless, the following four guidelines are very important in nature regardless of their legal status. Two concern the primary market and two the secondary market.

a) Primary market Guidelines In any primary market, all issuances should be done in a fair and transparent manner so that every market participant has access to the same kind of information. There are strict rules to govern this. The issuance calendar needs to be announced in advance. Details of the issuance need to be announced eight business days before the issue comes to market. All auction results are announced within an hour of the bids. The MAS' participation in the market is restricted to non-competitive bids, since the MAS is probably the only participant in the primary market with more information.

The second set of rules in the primary market deal with strict allocation of bids to prevent cornering. In this capacity, primary dealers are slightly privileged and are allocated a bit more than other participants. In a non-competitive bidding scenario (40 % per issue), primary dealers get 1 % of the issue per applicant. Non primary dealers get SD \$ 2 million for bonds and SD \$ 1 million for treasury bills. In a non-competitive scenario (unconstrained) primary dealers get 30 % of the issue per applicant and non primary dealers get 15 % of the issue per applicant. It should be mentioned here that while this seems like a fairly straight-forward rule, in practice it is difficult to implement. It is possible, for example, for a bank or a non-bank investor to flout the guidelines. So the MAS pays very close attention to the transaction of the security in the immediate hours and days following the auction. Any suspicious activity is investigated further.

b) Secondary Market Guidelines Singapore recently introduced an electronic trading system for primary dealers to transact with each other. Currently more than 70% of the transactions between primary dealers are conducted on this platform (see figure 25).

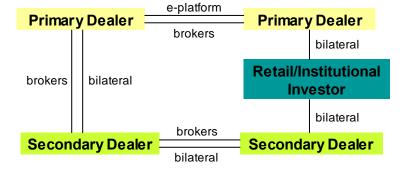


Figure 25: SGS Secondary Market Trading Structure

The first guideline aims to provide liquidity in the market. All primary dealers are required to give two-way quotes to each other. The standard lot is SD \$ 5 million. The bid / ask spreads are 5 basis points for treasury bills and \$ 0.05 - 0.30 for bonds. In the repos market, the standard lot market lot is SD \$ 25 million. The bid – ask spread is below 12.5 basis points.

Again, enforcing this is not easy. In the past, prior to the electronic trading system, the system was dependent on voice -- dealers just called each other for prices - and therefore the system

would run into snags. But now with the electronic bond platform system in place, giving two-way quotes is much easier. The MAS can monitor the quotes and the response times and keep tabs on how seriously the primary dealers are fulfilling their liquidity creating obligations.

Finally, there are a set of conventions to handle field transactions. Fairly straight-forward but essential to ensure the smooth functioning of the Government bond market. If a seller fails to deliver the securities by 4 pm on the value date, buyers issue a buy-in notice by fax or phone by 9:15 am next day. The MAS acts as a buy-in agent. This transaction is executed through brokers for complete transparency.

In conclusion, there are four key messages that need reiterating. The first, for the Government bond market to function properly, there needs to be a confident and stiff set of rules, guidelines, and conventions, to guide market participants and give them an assurance that all trading is in a fair and transparent manner. Secondly, it is necessary to enforce these ground rules, else they become empty phrases. Having done so, it is also important to leave the market as much freedom as possible to discover price levels and transact with each other. However, there is an obligation on the part of the central bank to monitor the market, and watch out for eventualities that could potentially destabilize the market. These rules are not cast in stone and need to evolve over time for a truly vibrant and fair bonds market.

## **Q&A Session Summary**

Moderator Benny Haryanto

President Director, Indonesian Central Securities Depository

- Hong Kong (China)-based issuers, issue bonds specifically targeted at the retail market. It is appealing for retail investors since the country has a low interest environment now. Hong Kong (China), like many markets in the region, has been a bank-driven market, apart from equities. By targeting retail investors and making it clear to investors that there is another way for a relatively secure income, that is several percent higher the bank interest rates, issuers have tasted some success in getting people to start moving their money out of the deposits and into the bond market.
- Issuers regularly approach the regulatory authority to help remove impediments towards targeting retail investors. The regulatory authority in Hong Kong (China) has relaxed some of the marketing provisions. Five to six years ago there were significant costs attached to marketing an issue targeted at the retail market but these costs have now come down, partly due to improved infrastructure and partly due to relaxed marketing provisions.
- The Hong Kong government established a task force as a market development force in 2001. It was established by the government but it drew on government departments, the regulator, the market participants (large financial institutions), and the main industry bodies. A cross-functional task force covers the whole sector. This is a pertinent characteristic of the Hong Kong bond market since one of the key factors for the development of the bond market in recent years has been the level of co-ordination and co-operation between the government regulator and market participants. The task force is responsible for the three-phase reform of the fund-raising provisions. Phase 1 being the easy pickings the regulator can put in place. Phase 2 dealt with disclosures and exemptions in the prospectus. Phase 3, is a comprehensive undertaking, and is an overall review of fund-raising laws in HK.
- It could be awkward for the regulatory authority to promote a particular market and that is why it makes sense to have such a body carry out this function. The job of the regulator is to find the regulatory impediments and remove them in a sensible and appropriate way. Indonesia faces a problem of coordination between government agencies, the Ministry of Finance, the central bank and could benefit from a step similar to the Hong Kong (China).

## Lunch - Keynote Speech

#### Dorodjatun Kuncorojakti

Economist, University of Indonesia Former Coordinating Minister for Economy, Indonesia

The IMF forecast for 2006 indicates that despite the increasing price of oil globally, and the adjustment of the interest rates in the U.S, there is not going to be a serious economic slow-down but a slight slowdown. The global economy is expected to grow by 4.3 percent in both 2005 and 2006, with the projection for 2006 slightly lower than the growth rate previously predicted. While the 4.3 percent growth projected for the world economy this year is healthy, it would mark a slowdown from the blistering 5.1 percent increase posted in 2004.

Yet, there are warning signs that cannot be ignored. In September 2005, OPEC announced that the group planned to allow its members to up the supply of crude oil if the market needed it. But the bigger concern is that there is a global shortage of refining capacity, the current inability of refiners to turn oil into sufficient gasoline and other products like diesel or jet fuel. The long gestation period (over 7 years) and the two key risks – production and construction risk – associated with the business make a quick turnaround difficult. Plus winter is approaching and most of the capacity is going to be used for heating oil. Even if the price of oil is not very different from last year, it will translate into a slightly higher price at the gas station. The refining crunch in the United States caused gasoline supplies to dip, led to spot shortages in some parts of the country and, for a brief period, pushed gasoline prices above \$ 3 a gallon nationwide for the first time.

This crunch in oil refining capacity will hurt countries with two characteristics. One is, emerging markets. Developing economies do not have an adequate buffer to weather such shocks, which often translate into dangerous inflationary pressures. For countries like Indonesia, the inflation expectation tends to be rather volatile. If it is true that inflation next year is going to be on the higher side, already predicted for the United States, then one can imagine that the inflationary expectations for the emerging markets is going to be on the higher side. Secondly, institutions in emerging markets like ours tend not be perfect and so it takes some time for the institutional machinery to absorb the global high prices into domestic prices. It is good in a way because it gives one time to maneuver. But it also gives you uncertainties because it is difficult to determine when the next inflation cycle will be. So I would tend to agree with the IMF, that there would be a bit of a slowdown. Not dramatic, but emerging markets should watch out for the downside, particularly since there is already an inflationary anticipation built in, as is evident in Indonesia.

What is going to be the prospect for Indonesia? There is now evidence of protectionist measures everywhere, in particular against the Chinese products. Earlier this year there were about \$ 7 billion of textiles and garments languishing in warehouses in Europe. If this situation translates into pressure for the Chinese to re-value their currency further, then there are likely to be problems in the Doha round of trade talks next December.

The other problem is the problem of global imbalance is going to continue. Now, the US has a record deficit of \$ 66.1 billion after Katrina and oil shocks. In our part of the world, in countries like China, the Republic of Korea, there is a surplus. Countries like China and Japan are recycling their trade surplus with the US, back into dollars, and especially into US Treasury bonds. So with this kind of money being translated into US bonds, Asia is now approaching about a \$ 1 trillion or more of US treasury bonds in the reserve. This is a fairly precarious global imbalance.

Nevertheless, the problem for Indonesia is that the country must find maneuverability in its budget. When I joined the Cabinet, the Indonesian external debt was about \$ 133 billion. On the domestic side, it was about Rp.216 trillion and the recap bond was around Rp.460 trillion. In all, domestic debt totalled about Rp.600 trillion. One part of the national budget is being eaten up by foreign and domestic debt servicing. If you translate the dollar value into a weakening rupiah, one can imagine the budget situation. That is why the October decision to adjust the price of oil, which will have a positive effect on the deficit. It took us nearly three and a half years, to cut the budget deficit from a size of 3.5% GDP to 1.2%. The plan then was to have a balanced budget by 2006. This is the greatest challenge for Indonesia.

Global Perspective: Improving Price Discovery to Support Market Transparency

### Transformation of the Indian Bond Market

#### **G.V Nageswara Rao**

Chief Executive Officer, Commercial Banking IDBI Bank, India

The Government bond market drives the overall debt market in India. Over the years, a burgeoning budget deficit has made the bond market a vital part of the economy. The Indian government has mandated several categories of investors, like banks, insurance companies and pension funds, to invest a minimum proportion of their assets into Government bonds. Due to the interest rate hikes and expansion of credit growth in the economy last year, it has increasingly become a challenge to manage the large borrowing program. The Ministry of Finance has been giving a lot of attention to developing the Government bond market in India. The Reserve Bank of India oversees the government bond market, and has put in place a strong regulatory framework to ensure its smooth functioning. As a result the Government bond market is miles ahead of the corporate bond market and net issuances have been steadily increasing (see Figure 26).

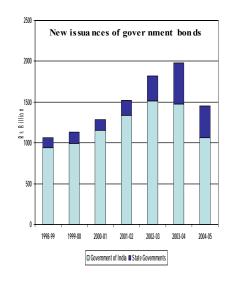


Figure 26: Government Bond Market

#### Major participants in the market

The major participants in the market are banks. There are more than 200 licensed banks in India, required to invest 25% of their deposits in Government bonds. In practice they hold more than 45% of their deposits in Government bonds. There is a very strong primary dealer system. There are 17 primary dealers who underwrite new issuances and function as market makers.

There are about 30 mutual fund companies, with both debt and gilt funds. There are insurance companies, retirement funds. More than 12% of national savings go to government pension funds, which are required to invest at least 35% of their assets in Government bonds. Foreign institutional funds are important players too but have a cap of \$ 1.75 billion on investment in the government bond market.

Most of these categories of investors are already over-invested and hold Government securities in excess of the regulatory limit. Due to a falling interest rate regime over the past few years in India,

coupled with strong trading and settlement mechanisms that have been put in place, volumes have been growing exponentially. In 2004-2005, trade volumes were in excess of \$ 500 billion. Gilt funds in particular have become popular. Despite the fact that interest rates have risen last year, the volumes have not been impacted substantially due to a strong trading culture that now exists in the market. Traders are keen to exploit the short term volatility (see figure 27).

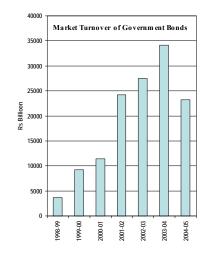


Figure 27: Rising Trading Volumes

#### The key characteristics of the Indian Bond Market are

- It is a very liquid market with tight spreads.
- It is essentially a wholesale market. The top ten participants control over 70 % of the volumes.
- The market is concentrated in a few issues; the top five issues contribute to over 50 % of the volumes.
- The market is characterised with very thin spreads. Data for 2002 shows that countries like Hong Kong (China), Singapore have bid-ask spreads in excess of five basis points. India, that year, had a spread of only 1 basis point.

Government Bond Market - Initial Phase of Development: Economic reforms started in India in 1992 and prior to that there was no market determination of rates. Interest rates were administered and fixed by the government. After the reform process, the market determination of rates came into being and Government bonds were auctioned to determine interest rates. The secondary market prior to that was practically non-existent and also started developing only in the early 1990s. But the early phase of development saw some problems. As soon as the market started to develop, the settlement infrastructure broke down since at the time Government bonds were held in physical form. Investors had a physical Government bond stock certificate and the Reserve Bank of India (RBI) the country's central bank, maintained the registry in paper ledgers. As volumes grew it became impossible for the RBI to manage transfers. It took days, weeks and finally months to execute transfers. There was no Delivery versus Payment (DVP) system - a seller delivered a security to the bank institution and collected the payment, giving rise to the possibility of counter-party exposure. The dealer in the transfer system gave rights to a `banker's receipt', which in effect is an IOU to deliver the security at a future date. So in effect, one could generate a false banker's receipt and collect the funds from a buyer. Clearly this system was full of loopholes and susceptible to fraud, which is exactly what happened. A massive scam occurred in 1992 and several banks lost money, including the country's largest bank the State Bank of India. A Parliamentary inquiry into this scam revealed a complete failure of basic controls in the country's largest banks and financial institutions.

Post this scam, over the next two years the RBI introduced the DVP system in July 1995, which nullified the settlement risk. The RBI Public Debt Office was computerized and today all Government bonds are held in electronic form. Nullifying of the settlement risk resulted in a phenomenal rise in trading volumes. But the system still entailed a physical transfer forms. Investors still dealt with the RBI and had to sign a piece of paper authorizing the bank to transfer funds and securities. Both counter-parties would sign it. This system worked for several years but once again as volumes grew; it started showing signs of trouble.

#### Post 1995 - The Rise of the Primary Dealers

In 1995 the RBI appointed primary dealers. Today, there are 17 primary dealers, including companies set up by domestic banks like Bank of India and foreign banks like Citibank, HSBC, ABN-AMRO. Global investment banks like Merrill Lynch set up joint ventures in India for primary dealerships. They also function as underwriters of Government bonds and the underwriting commission is determined by what the dealers feel is appropriate.

All primary dealers have a minimum bidding obligation. The RBI negotiates with the primary dealers on an annual basis, when the Government's borrowing program is finalized and obtains commitments from them as to what their aggregate bids in the coming year will be. This commits the primary dealers to subscribing to Government bonds. In turn, it is their responsibility to find buyers for these bonds and distribute them.

Primary dealers also have market making obligation but it is not very strictly monitored or enforced. But since the market is pretty liquid the RBI has not insisted on enforcing this. For the purpose of meeting their obligations they get funding lines from the RBI and have access to the call money markets.

Primary dealers have made a significant contribution to the development of the Government bond market. Today they act as counter parties to half their trades that take place in the market. More than 60% of new issuances are taken up by the primary dealers and then distributed to the rest of the market. In fact, this is commendable since dealers don't have exclusive access. Their bids compete with the other market participants but they still manage to pick up large volumes.

#### Price Discovery and Information Dissemination in Government Bond Market

Introduced in 1992, the price discovery mechanism through auctions has been working fairly well. All new issuances, could be new securities as well as re-openings of existing securities, take place through auctions. There is a yield-based auction for issuance of new securities and a price-based auction for re-issue of existing securities. India follows the English auction method for bonds and a few T-bills are auctioned on the Dutch basis. The auction calendar is issued on a semi-annual basis with exact details of when and where the auction is going to take place.

Telephone-based Voice market has been historically the dominant mode of trading. The primary dealers act as market makers by providing two way quotes and the inter-dealer brokers facilitate trading. This system has an efficient spread of trade information, there is no anonymity and there is a low chance of getting non-market prices since by the next day the actual trades are published.

As far as the secondary market is concerned, until recently, it was essentially a broker market, but there are a large number of inter-dealer brokers. Inter-Dealer brokers are members of the

Wholesale Debt Market segment (WDM) of the National Stock Exchange (NSE). Each trade by the inter-dealer brokers is tracked by the WDM. The market share is concentrated in the top 10 or so and it's a highly competitive market. While the primary dealers act as market-makers, the inter-dealer brokers match trades between the buyers and the sellers.

Initially the voice-broking market was not considered suitable and there have been constant efforts to shift the government bond market onto an electronic trading platform. In fact, the WDM platform, which the NSE offered was the same as the auto-matching platform that worked with stocks. But brokers were not keen to use an auto or non-auto matching platform for the wholesale market. The argument was that globally the whole-sale market is a voice-broking market because it requires negotiation. So in effect the WDM became an information dissemination tool rather than a trading platform.

Market information dissemination was very, very efficient. All WDM trades are published by newspapers and the NSE website next day. All SGL trades published on the RBI website the next day. In fact, all active participants in the market know every single trade by end of day. It is an efficient system that allows market participants to study each other's positions. One could access each trade, the security, the price and the quantity.

This transparency of information acted as a very efficient check. But the voice-market, although efficient most of the time, would break down if there was a large volume traded on a particular day. And this is how the system continued for almost 7 years.

#### Debut of the Negotiated Dealing System and Clearing Corporation of India

In February 2002 the RBI launched the Negotiating Dealing System (NDS) and made it available to all banks and primary dealers. It was intended to be a dealing platform with chat-type of applications and indicative quotes. It provided a structured negotiation format and participants could enter an indicated code and carry on multiple negotiating sessions with multiple counterparties. But the system failed to take off as a trading platform and ultimately the NDS became a trade confirmation and a settlement service. As soon one entered trades into the NDS, both counter-parties verified the trade, which flew directly into the settlement system. So whilst trading continued through voice, the entire settlement process became electronic. In fact, soon trades had to be entered 30 minutes after being confirmed (this is now immediate). Now real-time information is available to the market as soon as the deals are struck.

The other important event that took place in 2002 was the establishment of the Clearing House for Government Bonds. To eliminate counter-party risks even further the RBI set-up the Clearing Corporation of India (CCI); the body became a central counterparty to all trades. As soon as the broker confirms the trade, the participant is guaranteed a settlement. The funds were settled on a net basis and the securities continued to be settled down at gross bases.

The CCI also put in place a margin system to ensure that market participants met with their obligations. Members deposit a margin in the Settlement Guarantee Fund which limits their trades. All trades within that limit are guaranteed settlement.

This is a screen capture of how the NDS works (see figure 28).

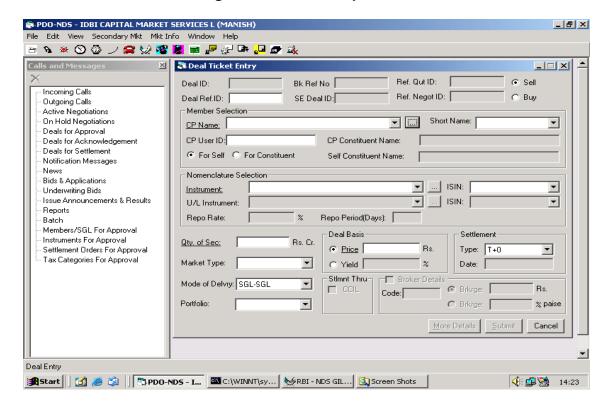


Figure 28: NDS Deal Entry Screen

#### The CBLO Debut (Collateralized Borrowing and Lending Obligations)

The CBLO is an Indian innovation, launched by the CCIL. It's essentially a collateralized borrowing and lending system by offering repoable securities and bonds as collateral. The system facilitates easy liquidity in the repo market and it provides non-bank entities suitable opportunities for short-term investment (other than call money market). It completely takes away the risk of unsecured lending among the banks. For example, if a corporation has surplus funds it can enter a trade on the system and be able to place its funds into the market against government bond collateral.

This system is currently available on the Internet as well and to all kinds of participants. As per the data available the volumes are fairly large and this is a very popular market. On September 22, 2005 the CBLO traded more than USD 2.5 billion.

The NSE also tried launching the debt market. It extended the stock market trading platform to government bonds, aimed at small investors and semi-wholesale investors. The system was available to all broker members of the NSE. The clearing and settlement system was the same as stocks. But the system failed to take off and has zero volumes currently and voice broking continues to service semi-wholesale investors.

#### The debut of the NDS Order Matching System

We have discussed earlier in this section, how both regulators and the stock exchange have been trying to move the Government security market away from the voice system to an electronic system but with little success. Then in August 2005, the NDS launched an order-matching system. And something extraordinary happened. The market took to it. Today more than 60 % of

deals in the wholesale market are executed on this electronic platform and the voice brokers are fast going out of business. Also, the deals go straight through directly to CCIL for settlement.

The thin bid-ask spreads are indicative of how efficient, deep, liquid the market has become in the order-matching system. The market depth is evident in the following slide (see figure 29).

∲RBI - NDS GILTS ORDER MATCHING SEGMENT \_ B × CG CG 10.25 GS 2021 SG Bid Amt Bid YTM Offer Offer YTM Offer Amt Bid Security Market By Price 21 Sep 2005 14:19:4! 10.25 GOVT. STOCK 2021 High 126.5400 / 7.3664 Low 126.4300/ 7.3765 14-11-35 Messages Total Bid Amt Refresh IDBI CAPITAL MARKET SERVICES LIMITED (35155) 21 Sep 2005 **(**∰ **3** 14:26

Figure 29: NDS-OM Market Depth Screen

Extraordinary Liquidity and transparency

In the above real-time screen all orders outstanding in the system are showing up. Unlike in a voice based market, where it was never as clear how many orders there are in a market. If a participant wants to configure a particular day, on say a 5 year or 10 year bond, then it is clear at what price the deal can be configured. This data is also available on the Internet. This is what is made the market extremely efficient and transparent. In conclusion, the Government bond market has all the characteristics of a single unified national market.

- Unmatched efficiency in price discovery in a wholesale bond market.
- Spreads are one-fifth of a basis point.
- There is a single central, counterparty offering guaranteed settlement.
- The market is accessible to all kinds of investors.
- Unmatched transparency due to a real-time feed to the RBI's public website and wire services.

There are very few markets anywhere in the world where an electronic order-matching system has worked in a whole-sale debt market. Today, people are talking of extending the system to corporate bonds, to interest rates and so on. There are still a few missing pieces. The industry is not allowed to go short on securities, there is no securities lending and borrowing mechanism and the interest rate derivatives market is still under development. There are also issues related with

the corporate bond market, which is illiquid, non-transparent. Its settlement infrastructure requires a lot of development.

This is the status of the government bond market in India and with the right systems in place; Indonesia can too achieve a substantial growth in the market volumes.

# Taiwan (China) 's Perspective: Improving Price Discovery to Support Market Transparency

Dr. Shyan Yuan Lee

Commissioner, Financial Supervisory Commission Taiwan (China)

This discussion will focus on how Taiwan (China) provided a benchmark-rate for selected maturities so that the price of these assets can be fair and a free flow of information encouraged. Before 2000, the Taiwanese capital market was similar to that of other Asian nations, except Japan and Australia. Most of the capital in Taiwanese capital market was in stock, and not into invested in bonds. In mid 1999, the central bank in Taiwan (China) and the Finance Ministry pushed to make the capital market more structurally sound. In 2000, they published a policy report on building a yield curve, while proposing the first ever-systematic blue print for developing the bond market.

The report had the following sections and is dedicated to the goal of efficient bond pricing and to create a market which is fare and transparent for issuers, trading and hedging.

- Government bond issuance policy and market coordination
- Primary dealer system
- Building a complete infrastructure for trading and settlement
- A reasonable tax for bond market
- Markets for trading in corporate debt and bank debentures
- Management of bond funds
- Futures markets for government bonds

The biggest challenge in building an efficient bond market is coordinating the different regulatory agencies. Since 1991, in an attempt to develop an efficient bond market, Taiwan (China) switched the issuance of government bonds from discretionary allocation to competitive bidding. Over the counter trading was established for price quotations and discovery.

However, the government had too many regulatory agencies in charge of issuance and trading. With each having its own way of doing things, it became difficult for these agencies to work together towards a common goal. Therefore, performance was unsatisfactory before 2000. Based on this experience, it is advisable that any plan for efficient price discovery should involve one agency with overall authority to coordinate the action of various policy makers.

Post this realization, it became easier for the Central Bank and the Financial Ministry to develop the market system methodically and building consensus became easier. Since 2000, Taiwan (China) has taken the following initiatives to build the bond market. These can be divided into three segments.

#### 1. Financial reforms in government primary market

It is important that government bonds be issued periodically and in the appropriate amount. If the government issues bonds consistently, it will lower uncertainty and help manage positions. Taiwan (China) has used a policy of periodical issuance of appropriate amount since July 2002. The amount of issuances is neither fixed nor pre-determined. The Finance Ministry wants to control fiscal spending, therefore a policy, where the issued amount varies is more suitable. However, every issue ranged from one to two

- billion US Dollar, making the market large enough to be efficient and to prevent price manipulation.
- Financial trading: The Taiwanese market began financial trading in November 2002, and it has been effective in discovering auction price, by raising the motivation of investors to compete in auctions.
- Taiwan (China) opened the issuance policy: Bond traders prefer on-the-run issues and this makes the active trading life of each bond shorter. This makes it easier for particular bonds to disappear from the market and the price can be easily manipulated. There are huge price discrepancies between the on-the-run issues and the over-run issues. In order to raise the saturation of individual bonds in the secondary market and to create a deeper market, Taiwan (China) instituted a re-open policy in April 2003. It has been effective in prolonging the trading life of benchmark bonds.

#### 2. Financial reform in government bond secondary market

- The clearing and settlement system was set-up in October 2001. Transaction data is gathered at the end of the day at the OTC market in Taiwan (China), and positions are netted out by the clearing system. This has significantly reduced counter party risk, as well as streamlined the transaction process.
- The electronic bond transaction system was implemented in July 2002 and was used to diminish the level of information asymmetry between issuers and investors. Currently, trading via the electronic bond transaction system accounts for 90% of bond transactions. As the sole secondary market intermediary, the GreTai Security Market is responsible for all kinds of information disclosure, such as end of day transaction data, historical performance, issuer-related news and announcements and market-rate statistics.
- Long and short trade are basic elements required for price discovery. It is quite rare to borrow bonds to short-sell and the regulators, especially in developing countries, often ban selling short. Moreover, Taiwan (China) was no different. In October 2002 the government, realising the importance of long and short trade in price discovery, allowed the borrowing of bonds to short-sell. However, at that time, the bond market was at its peak and therefore this procedure was not successful. It was only in March 2005, when the repo trading system began to be used and the yield curve began to rise that the borrowing of bonds for short selling began to be profitable. Since then, the number of short selling of trades through the repo trading system has grown dramatically.
- A Primary dealer system was launched in November 2003. There are now 11 primary dealers dealing in government bonds.
- A Government bond borrowing and lending centre was set-up in October 2003 and went online in January 2004. This provides a stable channel for borrowing bonds. Taiwan (China) provides an avenue for investors to short-sell through a repo-trading system and now through a government bond borrowing and lending centre. It is now an electronic bond transaction system to engage in borrowed bond trade.
- Ten Year Benchmark Rate. Trading in a ten-year government bond is the most active and best reflects market trends. The GreTai Securities Market and Reuters introduced such a ten-year benchmark rate in May 2004. Through this the investor is able to feel the pulse of the market and able to calculate the spot price for the delivered bond.
- The reverse repo computerized negotiation trading system was introduced in March 2005. These two systems were integrated so that outright trades can be consolidated with repo trades for net worth calculations. In addition, if an investor purchases a bond over a set limit, one can dispose it off automatically in the repo system. This system also cuts costs for dealers. The new system allows more flexibility in ensuring capital

adequacy raises the effectiveness of a trading settlement and allows for more efficient long and short trades.

#### 3. Financial Reforms in Fixed Income Derivatives Market

- The platform for forward agreement trading was established in March 2003. This platform allows dealers more flexibility in the holding strategy, allows them to hedge positions and stimulate liquidity in the market.
- The ten year bond futures began trading in Taiwan (China) in January 2004. Bond futures allow the price of an underlying bond to be more easily discovered and the information can be used to speculate and arbitrage on the underlying bond. It also allows dealers to hedge his price risk. It is an important tool for any efficient market. In addition to forward agreements in bond futures, fixed income derivative products began to appear in the Taiwanese market between 2002 and 2004, such as interest rate swap and convertible bond swap and asset swap, principal guarantee products and equity-linked notes.

#### Overview of Taiwan (China)'s Bond Market

The market has developed well in the past few years due to the effort to create a yield curve (see figure 30).



Figure 30: Significant Growth of Domestic Bond Market

Note: Date at end of Aug 2005

Trading was dominated by repo before 2001. However, electronic trading was introduced in 2002 and the primary dealer system introduced subsequently. These changes led to outright trades overtaking repo and now account for over 70 % of total market volume, although trading is focused on a few treasury benchmarks (see figure 31).

Trading Amount of Taiwan Bond Market RP/RS **US\$ Billion** OP/OS 05/8 

Figure 31: Rapid Growth of Outright Trading

Note: Date at end of Aug 2005

Even though market size and trading volume have improved, reform is still needed to construct an effective yield curve. As is evident by the trading breakdown for the past few years, most of the trading is in government bonds. Now government bonds are not actively traded (see Table 6).

	1998	1999	2000	2001	2002	2003	2004	2005/8
Government Bond	218	220	514	1,661	1,891	4,118	4,318	4,854
Financial Debenture	0	0	0	0	2	4	15	25
Corporate Bond	2	3	5	6	21	60	74	62
ABS & MBS	0	0	0	0	0	0	1	1
Foreign Bond	5	5	8	11	9	23	20	6
Convertible Bond	0	0	1	3	6	8	14	8

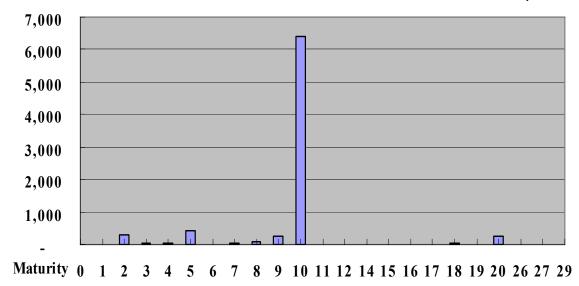
Table 6: Statistics of Bond Trading Volume

Only the ten-year government bond trades actively, while the two, five, and twenty-year government bonds trade less actively (see figure 32). This problem is an impediment in constructing an effective yield curve.

The Taiwanese bond market has not acquired different kinds of investors and not enough foreign investors and small investors. Most of the bonds are held by domestic institutional investors. In contrast, most of non-government bonds are held by bond funds. The high minimum trade discourages small investors, which is 1.6 million for each trade. Bond funds should ideally be a channel for small investors to invest but Taiwanese bond funds are actually money market funds and are merely a temporary parking spot for enterprises. This reality means that small investors do not have a way to invest in bond market. One solution: reform the withholding tax (see figure 33).

Figure 32: Bond Trading Volume Classified by Different Maturity

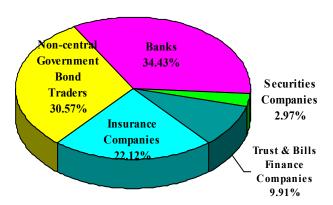
From: Jan/05 to April/05



Billion USD (NT\$/US\$=31.523)

In Average of April/2005

Figure 33: Government Bond Holders in 2004



The Taiwanese bond market has developed many derivative products since the year 2000. Most of them are in the infant stage. The IRS is very actively traded however; Taiwan (China) does not have a full-time government agency for regulating IRS trade. The trade volume shown in the following figure includes the trade by securities firms and does not include the volumes of financial institutional, such as banks. The trades in this figure account for about one twentieth of total IRS trades (see figure 34).

Taiwan (China) has introduced a mechanism for short-selling bonds and the results have been impressive. Investors can engage in short selling through reverse repo and through government GreTai Securities Market's Electronic Bond Trading System (EBTS), where trading volumes have dramatically increased since March 2005. Third, due to the increased volatility in interest rates,

the trading volumes of a bond option are two to four times what it was last year. The results are staggering and point to a continued growth of the derivative market.

Figure 34: Derivatives Trading Volume at the OTC Market

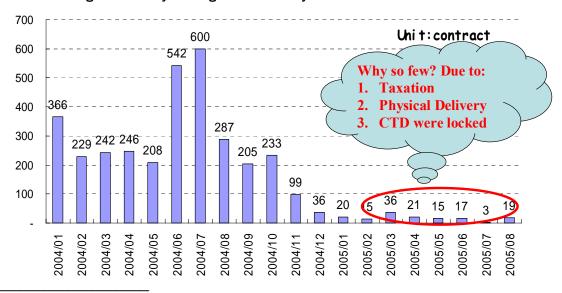
	Launched date	2001	2002	2003	2004	2005/8
CB Asset Swap	Jun-00	5	305	793	1097	1058
IRS		0	685	3309	4470	3791
Interest Option	Jun-02	0	0	496	213	60
Special Reverse Repo Issue	Oct-02	0	10	70	996	26538
When-Issued Trading	Dec-02	0	3118	108010	281480	217130
Forward Trading	Mar-03	0	0	257	660	254
Structured Note	Jul-03	0	0	298	1481	1578
SBL of Bond	Jan-04	0	0	0	742	855
<b>Bond Option</b>	Jul-04	0	0	0	6664	26654

Million USD (NT\$/US\$=31.523)

In Average of April/2005

Even though the derivative products are doing well, the government bond future market is falling behind (see figure 35). The bonds have been on the market since January 2004. Taxation issues and physical delivery issues are some of the main reasons for this poor performance. In response to this problem, the Financial Supervisory Commission had submitted a proposal to remedy this situation.

Figure 35: Daily Trading Volume of 10 year Government Bond Futures



Note: Date at end of April 2005

Conclusion: The marketing of Taiwanese bond funds has been incorrect. The whole industry is presently making structural changes. Bond funds offer high returns and high liquidity. This position turned out to be a mistake. Bond funds got into this mess due to the low interest rates over the past ten years in Taiwan (China). Taiwanese bond funds have attracted investors and enhanced after tax profitability by raising the allocation of bonds in the funds, thereby increasing the size of the funds and at the same time sacrificing their liquidity and increasing risk.

Therefore there are three actions need to be taken to solve the bond fund problem.

- The market cannot offer fixed income products that offer high liquidity and high return at the same time.
- We must make sure that the market for corporate bonds and financial debentures grows.
- In order to reflect accurately the health of each bond fund, the fund assets should be marked to market.

## **Developing Bond Markets: A Japanese Perspective**

Seiichiro Dokyu

JICA Resident Advisor to DPSUN

#### Overview of the Japanese system

Trends of Bonds Issued

Most of the market is dominated by government bonds. In the year 1998 about 64 % of the market was Japanese government bond, which went up to 82 % in 2004 (see figure 35). At the end of July 2005, the total amount is equivalent to \$ 7.71 trillion. About 75 % of this outstanding amount is the Japanese government bond market. Further about 85 % of the total outstanding amount is related to government and public bonds (see Figure 36).

The trading volume as of August 2005 is \$ 5.68 trillion. Again, 95 % is government bond trading (see figure 37).

Bond dealers, securities houses and financial institutions, have about 87 % of the market. Foreign participation is only about 7 %. Like other markets, institutions play a very important part in the market (see figure 38).

(In Trillions)

JPY 250

200

150

100

82.2%

64.0%

1998

1999

2000

2001

2002

2003

2004

Figure 36: Overview of the Japanese Bond Market

Source: JSDA

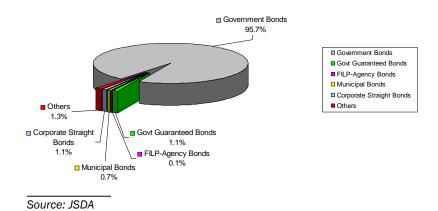
Total Amounts: JPY 848.15Trillion (US\$7.71 Trillion) Corporate Straight Bonds 6.1% FILP-Agency Bonds (JPY 51.41Trillion) Others 8.9% 1.2% (JPY 10.04Trillion) (JPY 75.16Trillion) Government-Guaranteed Bonds 4.8% (JPY 40.39Trillion) **Municipal Bonds** Government Bonds 3.3% (JPY 28.28Trillion) (JPY 642.88Trillion) Source: JSDA

Figure 37: Outstanding Amount of Bonds

Figure 38: Trading Volume of Bonds on the OTC market

#### c.1) By Bond Type

Total trading volume: JPY 625.3 Trillion (US\$5.68 Trillion)



By Investor Type

■ Citybanks & Long ■ Foreigners 6.6% Term Credit Banks 8.8% Others 14.5% Other financial institutions 5.5% ■ Bond Dealers ■ Investment Trust 56.4% 1.3% □ Individuals ■ Trust Banks 0.0% 6.8% □ Citybanks & Long Term Credit Banks ■ Foreigners ■ Bond Dealers □ Individuals ■ Trust Banks □ Investment Trust ■ Other financial institutions Others

Figure 39: By Investor Type

Source: JSDA

#### Major deregulations accomplished by the mid-1990s

After the burst of the Japanese bubble, the government suffered a huge fiscal deficit and had to increase the issuance of bonds. To strengthen the capital market and the financial system, the government made some reforms. The key reforms as follows.

1983-1996	Reducing restrictions of bond issuances in the primary market
1985-1994	Reduction and Partial liberalization of securities commissions
1992-1996	Mutual entry of banks and securities companies into their specific businesses.
1997-1998	Financial system reform

Fundamental market reform by continuous deregulation

Implementation of market principles by securing competitive market environments and self-responsibility principle.

1999-2001 Introduction and amendment of so-called financial infrastructure-related laws

Financial Products Sales Law. Amendment of SPC Law, Investment Trust Law, Securities Exchanges Law, and Financial Futures Law.

2001 Securities markets structural reform program to promote individual investors participation.

2002 Program for promoting securities markets reform to enhance the depth of securities markets where a wider range of investors could participate and the markets with market mechanism play a core role of the Japanese financial system.

2004 Amendments of Securities Exchange Law and other laws and regulations to promote the further development of financial markets.

As part of the reform agenda in the primary market, the government introduced a variety of products. In 1994, starting with the issuance of six-year JGB upto the 10-year inflation indexed bond in 2004. The diversification of the product base is aimed at increasing the investor base in the JGB market. Most individual investors prefer to keep their money in the banks. Even though the government bond carries a higher yield compared to bank deposits (interest rates are almost nil).

Additionally, the issuing procedures were changed. In 1998 the Japanese Syndicate Underwriters Group for the ten years bond — this large group is asked to underwrite on the ask price basis. The underwriting portion of the ten-year bond was increased gradually and currently 90 % is under the competitive bidding limit. There was also a shortening of the bidding time span, a very critical move since long time spans were a problem for the underwriters.

Under secondary market improvements was a repo market, introduction of futures and options. Surprisingly, in Japan the repo agreement was implemented in 2001. Most important thing is that the Japanese government bond market became 100 % paperless as late as 2003. This is a surprising fact about the Japanese system (see Figure 40).

Figure 40: Primary Market Related Developments, secondary Market and Taxation

#### Primary market

Variety of products and maturities			Review of issuing procedures	Improvement of bidding procedures			
1994 1999	Issuance of 6-year JGBs Issuance of 1-year TBs Issuance of 30-year JGBs	1989	[Reduction of syndicate group underwriting (10-year JGBs) Introduction of partial competitive	1991	Introduction of same-day announcement of bidding results		
2000	Issuance of 5-year JGBs Issuance of 15-year floating rate bonds		bidding (share 40%) Expansion of the competitive bidding limit (share 90%)	1999	Introduction of prior announcement of auction calendar and issue amount		
2001	Integration of mid-term government securities (4-6 year JGBs into 5-year JGBs	Present 2001	[Re-opening system] Introduction of re-opening system	2000-02	Time of announcement of bidding results brought forward		
2003	Introduction of STRIPS for government securities Issuance of retail bonds	1999	[FB issuance] Adoption of public auctions for FB issuance Adoption of public auctions	2003	Reduction in days between auction and issue dates		
2004	Issuance of 10-year inflation- indexed bonds	2004	Introduction of JGB Market Special Participants' scheme				

#### **Taxation**

## Relating to non resident General Lifting of taxes on profits from TB redemptions for foreign

institutions
1999 Exemption of withholding taxes on TBs & FBs redemption

profits held by foreign investors with certain conditions

Exemption of withholding taxes on interest from JGBs held by foreign investors through global custodians
 Exemption of taxes on interests from cross-border repo transactions earned by foreign financial institutions

2004- Expansion and simplification of procedures required to get Present tax exemption are in progress

Bonds, etc" took effect ? JGBs 100% paperless

2003 Exemption of withholding taxes on JGB interest for domestic corporations (capital in excess of ¥100million)

#### Settlement system and practices

Settle	ement system			Settleme
1980	Creation of transfer book-entry settlement system	19	87	Introd
1990	BOJ-NET JGB services came into operation	19	96	Introd
1994	JGB DVP system came into operation	19	97	Introd
2001	Introduction of BOJ-NET real time gross settlement (RTGS)	→ 20	01	Estab Guide
2002	Introduction of RTGS for issuance of JGBs Settlement System Reform Laws			practi
2003	"The Law concerning Book-Entry Transfer of Corporate	* /	A m	arket pra

#### Settlement practices

TBs and FBs

987 Introduction of "Gatoubi" settlement\*
996 Introduction of T+7 rolling settlement
997 Introduction of T+3 rolling settlement
998 Establishment of "The Japanese Government Securities
999 Guidelines for Real Time Gross Settlement" (market practices)

1999 Abolition of Securities Transaction Tax and Exchange Tax

Exemption of withholding taxes on redemption profits on

\* A market practice here where JGB transactions are settled within 10 business days after trades are contracted, on the fifth,  $10^{th}, 15^{th}, 20^{th}, 25^{th}$ , and the last day of each month. The word "Gatoubi" means every fifth and tenth day of the month.

#### **Secondary market**

Creati	ion of new / markets and transactions		Easing of restriction
[Future	es and options markets]	1984	Lifting of the ban on bank dealing
1985	Creation of JGB futures market		
1989	Creation of JGB options market	1987	Lifting of the ban on short sales by securities house
[Repo ]	Market]		
1989	Introduction of bond lending	1989	Lifting on the ban on short sales by banks
1996	Full-scale commencement of bond lending transactions against cash collateral	1995	Removal of interest rate regulations of bond lending against cash collateral
2001	Introduction of repurchase agreement		
Outrig	tht market]		
2003	Commencement of buy-backs by the Ministry of Finance		
2004	Commencement of WI Trading		

#### Japanese Government Bond related Primary Market Developments

The Japanese primary market dealership system was introduced in 2004. It was a critical step in the Japanese government bond market. The scheme is also called the JGB Market Special Participant Scheme and 25 banks were invited to be members of this scheme. The Ministry of

Finance (MoF) gives special privileges to these participants and in return, the dealers carry out certain obligations. One of the entitlements is participation in regular meetings with the government to discuss debt management policies. Despite the fact that the Japanese government had one of the higher debt rates in the world in the late nineties, this scheme is a relatively new occurrence.

The system is designed to promote adequate financing, and to maintain or increase liquidity, competitiveness, transparency, and stability in the JGB market. There are a number of responsibilities for these banks.

**Bidding Responsibility:** These participants are expected to bid for at least 3% of all government bond issuances at reasonable prices.

**Secondary Market:** The participants are expected to supply the secondary market with adequate liquidity.

**Purchasing Responsibility:** The market participants are expected to achieve a certain underwriting and purchasing share of the planned total issues size – at least 1 % – in each of the super long term, long term, medium term and short term zones in the preceding two quarters.

Information Provision: All market trends are reported to the ministry.

In return for fulfilling these obligations, the JGB have access to certain privileges. They have access to the finance ministry, and can take part in buy-back auctions of the MOF, apply for stripping and reconstruction of STRIPS, participate in non-price competitive auctions and liquidity supply auctions, and be preferential counterparties for MOF interest rate swap transactions. In addition, they have access to government meetings on debt management policies.

#### Roles of Self-Regulatory Organisation. Japan Securities Dealer Association

The JSDA is the sole corporative organization in Japan authorized by the Prime Minister under the Securities and Exchange Law and consists of all the securities companies and registered financial institutions in Japan (as members of the association).

Purpose of the JSDA:

To protect investors by ensuring fair and smooth trading in securities and other transactions by members of the association.

To promote the implementation of policy measures for the revitalization of the Japanese securities markets in order to contribute to the growth and development of the Japanese economy. In accordance with the progress of the Japanese securities markets reform policies and programs, JSDA has made amendments to its "Fair Business Practice Regulations" and improved its activities for the sake of stable and efficient market creation.

A part of the JSDA agenda is the improvement and expansion of the OTC bond market.

- Reform of the OTC Bond Market: Most bonds and debentures are usually traded on the OTC market in Japan. To enhance fair and efficient bond transactions, the JSDA is trying to reform or rationalise the OTC bond market by establishing or revising systems or business practices related to OTC bond transactions.
- Publication of Reference Prices (Yields) for OTC transactions: To provide reference information for members of the association and investors, the JSDA publicizes reference prices of 4500 bonds.
- Statistics and Collection of Data about the Bond Market: To promote fair and efficient bond transactions, the JSDA collects and compiles data and information related to bonds

and provides many different statistics and useful reference information and data for members of the association and investors through the Internet.

As early as 1966 the JSDA started price announcements for a few major bonds. In 1997 uptil the present, this price dissemination was improved. Now almost 4,400 issues are covered by this price dissemination system. It is now called Reference Price Yield System for OTC Bond Transactions introduced in 2002. This system is for prompt announcements for OTC market transactions to the investors.

There are some designated members, currently 22. They quote a price by 3.00 p.m. If more than six companies make a quotation to the JSDA, the body announces the Reference price yield to the public through their website or another delivery system by 5.30 of the trading day. Assuming seven companies have quoted a price for the bond, the highest and the lowest is eliminated. From the rest, the maximum price, the average price, the median price and the minimum price is calculated. So as a self-regulated organization, they try and facilitate the investors' needs by giving prompt and accurate information about bond prices.

#### **OTC Market Price Dissemination History**

- 1966 Price announcement of selected issues, which JSDA regarded eligible on every Thursday.
- 1977 Introduction of standard quotation for institutional investors and retail investors
- 1992 Daily announcement of public and corporate bond OTC standard quotation, which covered about 300 issues.
- 1997 Number of issues was increased to over 1700
- 2002 Introduction of "Reference Prices [Yields] for OTC Bond Transactions". Number of issues covered was more than 3100 at the beginning. And now this number is about 4500.

As a self-regulatory organization, they can initiate some reporting systems, like the price reference system. But co-operation with the regulatory authorities and some direct discussion with issuers and investors is paramount. It is fundamental to a deep-rooted secondary market.

## **Q&A Session Summary**

Moderator:

P.S Srinivas

Lead Financial Economist, Finance and Private Sector
The World Bank Jakarta Office

#### The success of the Order Matching System in India

The order matching system launched recently in India and already has two thirds of the voice broking market has shifted to this system. What is the magic ingredient in India, since it has not really worked in other countries? There has been a great deal of discussion on why the market has taken to this platform and the belief is that the system will be able to handle large volumes. There appear to be two reasons for its success. One, as long as a trading system is in the hands of brokers and you need to invest through a broker and the broker needs to execute through an electronic system that did not take off in India. A broker has an incentive to scout around and match the order, instead of putting it into an electronic system and letting the order picked up by the market. Whereas the NDS is sitting in the investor's hands and the investor puts in the order directly. Two, anonymity has driven acceptance of the system. The market became very transparent, in fact over transparent. The positions were very apparent. Therefore, investors were looking for anonymity. Third, there is a clearinghouse and so there is a guaranteed settlement and limited counter party risk.

#### Taiwanese problem of bond funds

The big problem in the Taiwanese bond fund industry is that they tried to enlarge their size to get more management fees from investors. They raised the bond holding percentage, to raise yield, and tract more investors. However, if the fund raises the bond holding, you lose liquidity and have a price risk. Fortunately, for the past ten years Taiwan (China)'s interest rate is going down. In 2004, the US dollar yield curves started going up and because Taiwanese bond funds invest a lot in structured notes. So when the USD yield curve increases, the bond fund has a price risk. However, fortunately, we do not have a credit risk in bond funds and have over liquidity in the economy. Therefore, as long as we can get the bond funds to hold structured notes up to maturity, they do not have a price risk at all. The fund industry should be able to resolve the bond fund problem. Therefore, the major problem for the Taiwanese bond funds is that they offer high liquidity and high yields, which is not possible for bond funds.

#### Taiwanese - Improving Liquidity

The reason the secondary market is actively traded is due to two systems, the electronic bond transaction system, and the repo trading system. To improve the liquidity in the secondary market, the government needs to issue bonds periodically so that there is no uncertainty for participants. Two, originally in Taiwan (China) the government set up the OTC trading, which created some fraud. Now the government is establishing the electronic trading system, only for the cash market. If an investor invests in the bond market, one uses a funding vehicle. Fortunately, Taiwan (China) has a lot of liquidity and the funding costs are cheap. If the government can also introduce an electronic repo system, it will further improve the liquidity in the market. In addition, if the two systems can be consolidated, most participants can net out their positions and not have to use too much of their capital. This will further improve the liquidity in the market.

However, the market still faces several challenges. Taiwan (China) has increased the fees for trading the ten-year bond and uses that to compensate those that trade in the two year, three year, and five year bonds, which are relatively less actively traded. The pension funds and insurance companies have invested in the twenty-year bonds and they do not trade regularly, which is a problem in many countries. The most important point here is that the government must issue bonds periodically.

Global Perspective: Tax Policy and Administrative Procedure to Encourage Domestic Bond Market

### Taxation Policy to Support investment in Bond Market

#### Petrus Sumihar Tambunan

Director General of Income Tax Ministry of Finance, Indonesia

#### Basic Concepts under Indonesian Tax Law

The basic definition of income tax is tax to be paid by or withheld from a person or relating to income earned during the tax year. We define income as an increase in economic capability in any form and name. This income can be used for either consumption or accumulation, subject to income tax. Here are a few concepts under Indonesian Tax Law.

- The Income Tax Laws article 4 (1) f says:
- Any increase in economic capability in any forms and any names that can be used for consumption or wealth accumulation is subject to income tax, includes; Interest, premiums, discounts and compensation for loan repayment guarantees.
- The Income Tax Laws article 23 (1) a.2.:
- Interest income as stipulated in article 4 (1) f paid or accrued by government institution, a resident entity and permanent establishment to resident tax payers is subject to withholding tax of 15% of the gross amount.
- The Income Tax Laws article 26(1) b.:
- Income in the form of interest, premiums, discounts, swap premiums and any compensation relating to a loan guarantee paid or accrued by government institution and resident tax payers to non-resident taxpayer other than permanent establishment is subject to withholding tax of 20% (or as stipulated by Tax Treaty).

The general rule is a resident of Indonesia is subject to withholding tax of 15 % from the gross revenue. The second general rule is that income earned by non-residents is subject to the income tax of 20 %. In the Income Tax Law, there is special treatment for special revenues in Indonesia. There is special treatment given to income from bonds traded in the capital market. According to Income Tax Laws Article 4 (2), the imposition of tax on income from transaction of shares and other securities at the stock exchange shall be stipulated by Government Regulation. This means that the laws allow the Government to create regulations about special income.

#### Tax Treatment of Income from Bonds: Government Regulation no 6, 2002

There is special income tax treatment on Income from Bonds traded in the Capital Market, regulated by the Government Regulation No 6 Year 2002, and further regulated by Minister of Finance and DGT Decree.

The scope of that regulation is applicable to bonds traded in the capital market. What is outside the realm of the capital market comes under the basic principle mentioned earlier, Article 23 and Article 26. The income from bonds traded in the capital market includes interest on coupon bonds, the discount of zero coupon bond and discount of coupon bond; this income is subject to final tax with a rate of 20 % for both the resident taxpayers and the non-resident. Nevertheless, for the non-resident taxpayer, the tax rate is stipulated in the Tax Treaty. For example, for British residents the tax rate is just 10 %.

The base for the final tax is the interest of the coupon bond, proportional to the holding period and not the entire period. In the case of discount of coupon bond, the value of the selling prices

or part-value in excess of that at the time of buying does not include accrued interest. It means that the object of the income tax here is the difference between the selling price and the buying price. This sum is subject to the rate of 20% and does not include the accrued interest.

#### The Withholding agent is:

- The issuer of bond or custodian bank appointed as agent for the payment of the interest and par value at maturity date. For example, if the issuer issues the bonds and at the end of the maturity date, he pays the value of the bonds and includes the interest there, the issuer is the withholder of tax.
- Security broker or bank, as either intermediary dealer or self-buyer for withholding the Final Tax at the time of transaction.
- Pension Fund and Mutual Fund as direct buyer without intermediary dealer at the time of buying the bond.

#### There are exceptions to Withholding the Final Tax:

- Received by bank as resident taxpayer. For example, if a bank like Bank Mandiri received the interest or revenues from bonds, then the bank is not subject to the withholding tax.
- If the recipient is a Pension Fund having Minister of Finance's approval (Exempted by Income Tax Laws).
- If the recipient is a Mutual Fund registered at BAPEPAM during the first five years since the approval (Exempted by Income Tax Laws).

#### The Exemption of Final Tax:

Tax withheld from person having total taxable income during one tax year less than the amount of non-taxable income (PTKP) is stipulated by regulation to be Non-Final Tax (REFUNDABLE). These taxpayers are entitled to a refund for tax paid by them.

#### Types of Bonds and their taxation

- Interest Coupon Bond: In this case the taxable income (The base of final tax) is proportionate to the holding period. If the period of the coupon is six months or one month, then the interest calculated is proportionate to that period. Discount (capital gain): the value of selling price or par value in excess of the value at time of buying not included accrued interest.
- Zero Coupon Bond: In the case of this bond, the discount (capital gain): the value of selling price or par value in excess of the value at time of buying

Either of these bonds could be either corporate or government bonds.

The withholding agent has a number of obligations.

- To withhold the final income traded or reported to the capital market.
- Give withholding tax slip to the party withheld.
- Deposit tax withheld to the appointed bank or post office no later than the 10th day of the following month
- Report tax withheld and deposited to Director General of Taxes, no later than the 20th day of the following month. There are penalties for late reporting.

The obligation of the taxpayer withheld is to give withholding tax slip number 4 from the previous withholding agent to the next withholding agent for the purpose of accrued interest or discount calculation as the Tax Base for the next withholding tax.

The taxation on income for bonds not traded in the capital market is subject to the Article 23 and 26. There is special treatment given to the capital market.

All interest, premiums, or discount is subject to withholding tax article 23 or article 26;

Capital gain is not subject to withholding tax, but imposed and reported through self-assessment system (annual tax return).

There are facilities for bonds that are traded or registered in the capital market, because the rate of the income tax applicable to them is only 20 %. Thus they get their income and then pay a tax of just 20 % because if they go by the general rule then a 30% rate is applicable, it needs to be filed in the tax return and perhaps be subject to an audit.

### **Current State of Accounting and Taxation**

#### Saiful Haq Manan

Partner, Tax Services PricewaterhouseCoopers, Indonesia

HIMDASUN has cleared a few principles with DSAK, vis a vis the Indonesian accounting body. There is an understanding that the treatment will not be a two-step treatment, but a one-step transaction. Therefore, it will follow the classic repo transaction. On the tax side, interest is included as income. This means, the interest or the discount as regards the first transaction will be deemed as interest and subject to withholding tax under the Indonesian tax regulations. Then at the end of the day, when there is a gain or loss, that is also subjected to income tax to be included in the investor's tax return, individual or corporate. Therefore, the gain actually, as per the current state of Indonesian taxation, is only through minimization of the withholding tax. A foreign resident can invest through a treaty country, which is beneficial. Therefore, if the investor is for example Malaysian, then the Malaysian company can invest in Indonesia and reduce the withholding tax rates according to the treaty between Indonesia and Malaysia. That is the current state of taxation in Indonesia. To provide a perspective, here is a summary of how certain other countries handle this particular transaction.

#### Hong Kong (China)

Hong Kong (China) follows a territorial taxation policy. Hong Kong (China) taxes only income generated in the country. Any income generated outside Hong Kong (China) is generally non-taxable. An exception is entities that do business in Hong Kong (China). In that case, there are certain qualifications that need to ascertain before claiming exemption on offshore income. Essentially, a non-resident of Hong Kong (China), with no business whatsoever in Hong Kong (China), including no permanent establishment, is entitled to an exemption of any withholding tax generated out of interest in lieu of bonds in Hong Kong (China). Government bonds and debt instruments – like exchange fund bills – are tax exempt. There is no withholding tax on capital gains or interest earned from bonds. However, this policy needs to be put in perspective and should be seen in totality and not in a piecemeal manner. Hong Kong (China) follows territorial sourcing to access a worldwide income source concept.

#### India

India, in contrast, withholds tax at source. Therefore, any income derived from India is subject to tax deduction at source, unless there is a minimization through tax treaties. Therefore, if the investment is through a company that is a resident of a country with a tax treaty with India, then it is subject to reduced withholding tax. However, `certain' government securities are not subject to tax deduction at source. The word `certain' is not defined completely correctly, since it is a Common Wealth country and the cases would differ in treatment.

#### Malaysia

There is specific treatment for specific tax cases in Malaysian taxation of securities. Tax laws will examine certain situations before passing tax treatments, if those situations are unique. There is also a tax exemption in terms of interest by a licensed bank to non-residents, if the non-residents do not have any business presence in Malaysia. Currently, there is also a tax exemption on

securities or bonds issued or guaranteed by the Government or Bon Simpanan Malaysia issued by the Central Bank of Malaysia.

#### Singapore

Singapore also follows a territorial concept of taxation. However, the country has certain guide hires that actually put Singapore on a worldwide concept basis in practical terms. This is because offshore income is not taxable in Singapore. However, if a Singapore tax resident enjoys the income, it could be taxed. Therefore, in practical terms Singapore follows a limited worldwide concept, unlike Hong Kong (China), which is exclusively territorial. There are related concessions. Singapore likes to give incentives in monetary and fiscal terms. Interestingly, Singapore has withholding tax exemption on Government securities. Certain payments to non-residents would be deemed to be derived in Singapore, and subject to Singapore withholding tax. Nevertheless, the interest from Government bonds is tax exempt. For income tax purposes, transfer of securities and collateral under the securities lending and repo arrangement will not be regarded as disposal by the transferor of securities, subject to certain conditions. However, an actual disposal maybe triggered and recognized for income tax purposes subsequent to the transfer.

# Keynote Speech: The Role of Bank Indonesia in Developing Indonesian Bond Market

Dr. Miranda S. Goeltom

Senior Deputy Governor, Bank Indonesia

It is a pleasure and an honor for me to be here in front of such a distinguished audience to deliver a keynote speech at the workshop on "The Challenge and Opportunity of Indonesia Debt Market". On behalf of Bank Indonesia, I would like also to extend our appreciation to World Bank and Capital Market Supervisory Agency (BAPEPAM) for organizing such an important forum, involving very important participants, not only from policy maker front (including Ministry of Finance and Bank Indonesia), but also business players in the related areas, such as banks, securities companies, self regulatory organizations (SROs), asset management companies, and associations in capital market.

By considering the theme of workshop, it is indeed a great opportunity for Bank Indonesia to discuss and learn some valuable issues from this workshop. As you have already known, the conditions of the Indonesian debt market are still in early-developing stage compared to that of in the developed countries. Therefore, there are a lot of challenges as well as the opportunities for the development of our debt market; and we think that the participants of this workshop will also be able to identify the problems and gather the feedback in order to further develop the Indonesian debt market.

#### Recent Macroeconomic Development and Policy Responses at a Glance

On this occasion, let me first touch briefly the latest development of Indonesia's economy in 2005. The prospect for growth of Indonesia's economy in 2005 seems to be stronger which is forecasted to be around 5.0%-6.0%. On the demand side, the economic growth would be supported by higher investments while a stable trend is projected for private consumption. Continued increase of economic growth in the first and second quarter of 2005 is the reflection of the Indonesian economic buoyancy. This favorable development is expected to continue in the years to come along with a better investment climate stemming from the government efforts to eliminate country's problems. It is true that currently we are still facing some challenges in the macro wide. Due to external factors mainly oil price hike as well as higher domestic demand, imports increase sharply, leading to depreciation and wider fluctuation of the Rupiah. Until the 3<sup>rd</sup>quarter of 2005, the Rupiah has depreciated around 8%, while inflation went up to 8.33% (y.o.y) in August 2005.

Against this background, tight monetary policy stance is still needed that will be useful to bring inflation down towards. In order to enhance the effectiveness of monetary policy, starting July 2005 Bank Indonesia uses interest rate as its operational target, replacing base money approach. Within this framework, Bank Indonesia has introduced the so-called "BI-rate" as the reference rate for one-month tenor interest rates. We hope that this rate could provide a better guidance for business economic activities about Bank Indonesia's monetary stance. For the first quarter of its implementation, BI-rate is being set up at the level of 10%, the rate that we believe appropriate for bringing inflation pressures down.

However, our country last month has experienced high pressure in the Rupiah exchange rate. Therefore, Bank Indonesia has issued some immediate measures to stabilize the Rupiah

exchange rate. This series of policy measures include: (i) a significant rise of BI interest rate, as much as possible the absorption of liquidity through fine tuning operations, (ii) a rise of the maximum deposit guarantee rates, and (iii) an increase of the bank statutory reserve requirement.

More than that, such measures are also supported by several other actions, which consist of: (i) provision of Bank Indonesia swap facility for hedging purposes, (ii) foreign exchange market improvements to prudential regulations governing foreign exchange transactions (for instance, regulating margin trading and changing the provisions governing the Net Open Position), and (iv) more intensive supervision of banks with regard to un-hedged currency trading, including concrete sanctions under the applicable regulations. To overcome external vulnerability, Indonesia has also bilateral swap agreements with Japan, ASEAN Countries, China and Korea amounting to USD 11 billions.

It worth noting that in conducting these measures, harmonized coordination between Bank Indonesia and the Government is a sufficient condition that we have to maintain. With the implementation of these measures and with clear government policies guiding the real sector development, we expect the market players to react reasonably, and the Rupiah to bounce back to its optimum level. To reinforce this process, Bank Indonesia will also keep a constant watch on external and internal economic indicators. The role of the banking sector and of the public to support the on going effort in restoring stability to the economy is also an important element that we always wish to emphasize.

#### The Role of Bank Indonesia in Developing Bond (Repo) Market

It is a well-known fact that macro economic stability will not be sustainable in the long run without the existence of financial stability. Since the achievement of financial stability is also much affected by the development of the government bond market, Bank Indonesia also pays great attention to this matter. As made possible by Treasury Law No. 1 Year 2004 (Undang-Undang Perbendaharaan Negara), Bank Indonesia will use government bonds as a monetary instrument in its monetary operations. We hope that such monetary operations will be able to enhance the development of the government bond secondary market as well as maintaining financial stability, thus strengthen the implementation of sound monetary policy.

Based on other country experiences, such as in the United States and Japan, the government bond transactions in the secondary market had also grown significantly when the *repo* market had risen. It was because more than 70% of the transactions in the secondary market consisted of the *repo* transactions. Therefore, it is important for us to develop a *repo* market in Indonesia. Among others, the importance of the development of a *repo* market are the followings: (i) for the dealers, a *repo* transaction can be used as a hedging tool, (ii) for the investors, a *repo* transaction can be used as an investment instrument which is tradable in the market, (iii) for the central bank, the existence of a *repo* market will enable us to adjust the liquidity and to show the stance of the monetary policy to the market.

#### Policy Coordination in Developing the Secondary Market

It worth noting that a solid coordination between Bank Indonesia and the Ministry of Finance is critical, especially in efforts of designing a strategy to establish a well-developed and well-functioning government bond market. In this regard, Bank Indonesia and the Ministry of Finance will continue to work together in developing the government bond secondary market. The latest example which reflects solid coordination between Bank Indonesia and the Ministry of Finance is the finalization of the Indonesian Master Repurchase Agreement (MRA) in June 2005. The two authorities have worked together to facilitate an Inter Dealers Market (Perhimpunan Pedagang

Surat Utang Negara - Himdasun) which was instrumental in completing and establishing the MRA. It is expected that the MRA will encourage market players to conduct repo transactions in the coming years.

With the MRA, we also hope that government bond transactions in the secondary market would continue to increase. As we witnessed, since the first issuance of the government bond in 1999, its daily transaction volume has significantly increased. As of September 23, 2005, the average of daily transaction volume reached Rp. 2.7 trillion with 173 transactions, much higher compared to Rp. 1,4 trillion with 51 transactions in 2003.

The Government bond law has designated Bank Indonesia to be the auction agent and the administrator of the government bonds. As the auction agent, Bank Indonesia represents the government of the Republic of Indonesia in the government bond auction both in primary and secondary market. As the administrator of the government bonds, Bank Indonesia handles the ownership registration, clearing and settlement, and the payment of interest and principal on government bonds.

The other role of Bank Indonesia is that the government will consult first with Bank Indonesia if the government has a plan to issue the government securities in the beginning of budgetary year. Consequently, Bank Indonesia as the monetary authority and the Ministry of Finance on behalf of the government of the Republic of Indonesia as the fiscal authority need to be closely coordinated each other. Good coordination hopefully will create a good policy that will in turn encourage the development of Indonesian debt market.

#### The Role of Bank Indonesia in Strengthening Market Infrastructure (BI-SSSS)

In the development of Indonesian debt market, another critical aspect that we have to pay attention to is the availability of market infrastructure. So far, all significant improvements in the development of government bond are closely related to this factor. I think we all agree that the relatively new system known as Bank Indonesia - Scripless Securities Settlement System (BISSSS) which was released in February 2004 has had a great role in developing the government bond market. Through it, more reliable and efficient trading and settlements of government bonds are made possible. Furthermore, to anticipate a more developed secondary market of government bonds, we are of the view that the enhancement of BI-SSSS is needed, in particular to integrate the system with the capital market. We are planning the integration to be conducted by the end of this year.

Please allow me to end my speech by thanking to all of you who, I believe, have been interested in the discussion of the development of Indonesian debt market. Through this workshop, we do hope that we could learn from all of you about the common market practices in developing the Indonesian debt market. It is also expected that the discussions raised during this workshop could enrich our views and contribute to a better understanding for all us in the ways to foster the Indonesian debt market development in our country. And finally, I also thank BAPEPAM, the World Bank, and other related parties who have worked hard together in preparing this event.

# Global Perspective Infrastructure Development to Enhance Market Liquidity

### Securities Lending & Borrowing and Repo

#### **Bernard Chin**

Head, cash/collateral distribution, Asia-Ex Japan Director, Sales and Trading UBS Singapore

Repos (repurchase agreements) and SBLs (securities borrowing and lending transactions) tend to be the most common mode of fixed-income liquidity. There tend to be some misunderstandings about these products. Just having the products does not always translate into liquidity in bond markets. There are a few international industry groups that try to promote liquidity in fixed-income markets. There is the US-based Bond Market Association (<a href="www.bondmarkets.com">www.bondmarkets.com</a>). The association covers US treasuries, mortgages, US securities, and agencies. The International Capital Markets Association (ICMA) looks at European securities. In Asia there is an organization called Pan-Asian Securities Lending Association (PASLA). PASLA was originally equity focused but now focuses on fixed-income securities. Each of these organizations has sub-committees that look after liquidity in their respective markets. BMA has a funding / repo committee and ICMA has a European repo council.

#### Instruments in government bond markets

**Cash bond**: These are securities with a finite issue size. Sometimes, the issuer taps the issue, increasing the total outstanding amount of the issue.

**Bond Futures**: These are derivative instruments that allow leverage. It is possible to net future positions against each other. The underlying security in bond futures is a cash bond. Depending on the contract specification, the delivery of this transaction can be cash settled or settled with the delivery of a bond.

Repos and Stock Loans: These two products, unlike the first two are liquidity instruments, used mainly for financing. They move bonds and securities around in time. A repo, repurchase agreements, is used for financing. The dealer sells the government securities to investors, usually on an overnight basis, and buys them back the following day. Stock loans are securities lending and borrowing transactions and also serve as a liquidity instrument. Used mainly for fee and collateral. The Collateral can be cash or non-cash.

#### US Secondary market structure (see figure 41)

There is a central registry, known as the Federal Reserve (FED), the central bank of the U.S. Then there are agent banks, custodians, and there is a central counterparty (CCP) for professionals and their customers. Customers typically tend to be serviced by professionals who trade directly with each other or through the CCP. In the US, the CCP is called the Fixed Income Clearing Corporation (FICC). FICC was formed in 2003 through the merger of the Government Securities Clearing Corporation (GSCC) and the MBS Clearing Corporation (MBSCC) in order to bring greater synergies, cost reductions, and efficiencies to the post-trade processing of fixed income instruments.

Agent Banks

CCP

Prof essionals

Customers

R
R
R
R
R
R

Figure 41: US Secondary Market

#### **Global Infrastructure Comparisons**

The following figure tries to compare the different market models in the region and globally. The point here is that certain markets have central counterparties, some have central depositories, most markets have repos, and some do have SBLs. For example, Korea has the Korea Securities Depository (KSD), which provides SBL as well as repo services. A wide range of financial institutions including securities companies, banks, insurance companies, and investment trust companies owns the KSD. Almost all securities issued and traded in Korea are deposited at the KSD. Being in charge of the post-trade activities, KSD settles securities trading and plays a crucial role in administering investor rights. Taiwan (China), on the other hand, has neither a CCP nor a central depository. The repo and SBL transactions shown below indicate market-based trading or CCP-offered and not trading with the issuer or appointed agent, such as the US Treasury and the FED (see figure 42).

Figure 42: Infrastructure Comparisons in Government markets

	Settlement	ССР	Central Depository	Repo	SBL
US Europe	Fedwire Euroclear	No Euroclear	No Euroclear	Yes Yes	Yes Yes
Indonesia Singapore No	BI-SSSS MEPS-SGS	No	No No CDP	Yes*	Yes Yes
Malaysia ISCAP	RENTAS	No	No	Yes	
Thailand Yes	BAHTNET2		No TSD		Yes
Taiwan Korea Korea (KSE) Hong Kong China OTC China (SSE) Japan	Gretai / CB KSD+BOKWire KSE (clear) CMU CDC S&DC BOJ-NET	No No KSE No No No JGBCC	No KSD KSD CMU CDC S&DC → CDC No	Yes Yes Yes Yes Yes Yes Yes Yes	No Yes No No No No

For example, in Taiwan (China), there are SBL markets but there is not much trading on it. Mostly, it is on repurchase agreements. Korea too has a SBL market but the volume is mostly in repurchase agreements. In fact, the Asian region does not have very well developed SBL markets.

#### Indonesia Bond Market Roles

Now look at the different roles in a government bond market with the specific example of Indonesia. Typically, the country's has an issuer, issuer agents, central bank, different sort of market participants; you have regulators for both the primary and the secondary. The market also has regulators for different participant types as well as for the different market segments. There is a taxation authority, which looks at tax issues regarding policy, administration, collection, and enforcement. Tax revenues are important but the question to address is the infrastructure must ensure enforced tax collection without increasing the costs and preventing trading.

In Indonesia, there are a lot of registries, sub-registries and custodians. As indicated in the chart, BI is the central registry and there are 11 banks as sub-registries. Clearing and settlement is a scriptless settlement in the Indonesian market. BI has developed a bond registration system known as the BI-SKRIP. In this system, there are no certificates issued and the bonds are registered in a scripless form. BI's open market operations handle liquidity in the market.

#### Roles in Indonesia Govt Bond Market

Issuer MOF (Debt Office)
 Issuer Agent BI
 Central Bank BI

· Market Participants

Funds (mutual, pension, insurance)

Securities Companies Asset Mgmt Firms

Regulator (Market)

Primary Market MOF (DO) / BI Secondary Market Bapepam (Interbank) HIMDASUN

Regulators (Participant Type)

Banks BI

Securities Firms Bapepam

Tax

Policy MOF (DG Tax)

Administration/Collection function

Registry / Sub-Registries

Feb 2004: BI is the CR (central registry)

11 banks are SR (sub-registries need to be member of BI-

SKRIP) 10 commercial banks assume sub-registries

to manage investor accts

- Custodians
- Clearing & Settlement

Feb 2000: BI-SKRIP, scripless registry and settlement system

Bilateral clearing/settlement now ("unorganized" OTC)

DVP/RVP ← BI-RTGS + BI-SSSS

(for corporate bonds however, KSEI does CR & settles trades, and KPEI clears) (for shares, KSEI does CR and settlement, KPEI clears + CCP + funds + prevent

fails)

KPEI members are securities companies and custodian bank.

Liquidity Methods

BI OMO

Market OTC Repo (starting)

Market Central n/a

Should there be both Repo and SBL?

#### A perfect model?

The question here is – is there one perfect model for the market? A better question here is - what are you trying to achieve? Specifically, in emerging markets. You want to promote investment in the bond market, increase the number of transactions, ease up transacting rules so that more investors can transact? Central counterparty (CCP) is a concept that comes up in many different markets. The issue needs to be discussed as a clearing concept; central clearing versus a CCP. In terms of central clearing, the system has the advantage of old benefits of standardized processing, straight through processing (STP), better risk management practices, and low operating cost, multilateral netting. A central clearing system can also potentially do trade and settlement reporting and tax administration.

In a CCP system, there is much more to take care of since the system will be bearing a higher risk, such as a centralized credit risk. One needs to think off settlement guarantees, and funding issues. A CCP is usually associated with trade anonymity. Is that a benefit or a cost? If there is trade anonymity certain participants may not want to transact if there is trade anonymity. Last, but not the least, how much time is there to implement this perfect model? The intention might be to have the best possible market model but the reality of delivery on time, might make that a potentially impossible goal.

#### Liquidity Market

Traditionally in Asia, government bond markets are OTC markets. Sometimes there is both an OTC and an exchange market. Institutions that trade in government bonds usually trade them in large volumes. Retail investors are typically serviced by institutions, such as banks or funds. Exchange markets are fine, but empirically we have not seen much benefit. From a practitioner's perspective, an exchange market works well when buyers and sellers othewise have a hard time finding each other, but in government bond markets, with large institutional participants the typical suspects can be tracked down easily.

#### Repos and SBLs

These two concepts are not that different and arguably could be under a single legal document. Both are liquidity products moving bonds around in time. In terms of contrasting them, government bond transactions are in larger size. Liquidity markets are more concerned about funding for government bonds. This is why repos are a dominant product.

Historically, SBLs started in equity markets, which is why the instrument can be easily adapted to fixed-income securities. Even today, SBLs can be very equity-focused, especially in Asia. In the US and Europe many of the security-lending agents, who do SBL transactions, make a large profit doing SBL transactions in fixed-income securities rather than equity securities.

#### **Practioner Definitions**

A repo is securities versus cash. SBL is securities versus collateral, which can be cash or non-cash. Economic equivalence. A repo is just SBL using collateral where the collateral is cash. SBL is synthesing a repo for a security and reversing of collateral. Therefore, the two concepts are somewhat alike and there is a dualism to them. Once you introduce cash, you have introduced leverage. The typical users of repo, are funding, leverage, shorting / cash re-investment. SBL cash has the same uses. SBL non-cash, shorting and yield enhancement.

In the US, mutual funds have many different sub-funds and one of them is money-market funds. Money market funds tend to invest a lot in bank paper, commercial paper, as well as repurchase agreements. In many markets, ABSs and CPs are not very well developed but the repo markets are quite developed. Therefore, it is a kind of bridging product between very, very short term to medium term and long term. Some view repos as a hedging product. From a practitioner's perspective, it is hard to view a one-month or 3-month repo trade as a hedging product against a 10-year or 30-year bond.

The growth in the US repo market has been very healthy (see figure 43). Between 1997 and 2004, the market grew from an outstanding of 2 trillion to 5 trillion, including treasury agencies and mortgages.

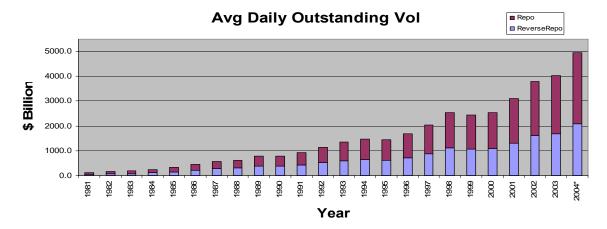


Figure 43: Growth of US Repo Market

Figures cover financing involving U.S. government, federal agency, and federal agency MBS securities.

The growth in the European repo market was much faster in a shorter period. The market grew from 2 trillion to 5 trillion Euros in four years. That is a 150 % increase in four years.

There are a number of reasons for this rapid growth.

- In the bond market, investors tend to see the benefits of securitized lending.
- Tri-party repo is a product that allows very efficient trading of repos in large numbers.
- The Basel II framework has helped. Last year the central bank governors of the G 10 countries endorsed a new capital adequacy framework. The Basel II Framework sets out the details for adopting more risk-sensitive minimum capital requirements for banking organizations.
- More assets such as corporate bonds, Collaterised Debt Obligations (CDOs) and Asset Backed Securities (ABS) are becoming financeable.

Before introducing these products, one has to ensure that the platforms allow it. For example, the Bank Indonesia – Scripless Securities Settlement System (BI-SSSS) is not real time enough. This is an electronic facility, launched in March 2004, for conducting auction and settlement of government securities between Bank Indonesia and market participants. The BI-SSSS has a number of functions: it matches instructions, checks ownership of securities of seller, verifies sufficiency of securities, and finally checks availability of buyer's funds in the Bank Indonesia – Real Time Gross Settlement (BI-RTGS). If successful, the next step is the DvP settlement system. Yet, this system does not allow short selling, even though regulation may allow it. The system needs increased real-time capability. The system needs to allow intra-day net short positions.

<sup>\*</sup>Beginning in July 2001 corporate securities are included.

Banks need to provide funding capabilities to customers to alleviate the problem of pre-funding and transaction delays.

#### Enhancements (Repo and SBL)

The liquidity market can be OTC as well as centrally facilitated. In Indonesia, OTC only applies to banks and should be extended to other counter-party types, such as securities companies, mutual funds, insurance companies, and pension companies. The Indonesian Government Securities Inter Dealer Association (HIMDASUN), an industry association set-up in 2003 to support the government securities market, can develop transaction standards such as the Master Repurchase Agreement (MRA).

The Central liquidity facilitator could be someone like the KPEI. The Kliring Penjaminan Efek Indonesia, the Indonesian Clearing and Guarantee Corporation (KPEI), provides clearing and guarantee services for settlement of stock exchange transactions. KPEI already has SBL on equities, which can be easily extended to government bonds.

KPEI could work as a central clearer and an outright repo clearer but perhaps not a full-fledged CCP. A CCP would require more investigation, because of the increased risk from the counterparties. There are regulations that need to be sorted out, capital requirements, how much leverage to allow security firms, whether *repos* are classified as money market eligible instruments and tax clarity on repo and SBL products. KSEI (the PT Kustodian Sentral Efek Indonesia), the central securities depository institution is already a depository for equities and can work for government bonds as well.

In Indonesia, *repos* really are buy-sell bags. True *repos* beneficial owners typically get all the corporate actions. So in conclusion I'd like to just summarize it. *Repo* and SBLs really, if people are thinking about separate products, they really are fixed income liquidity products. You use them for different reasons. The second thing is, I think there probably has to be a lot of coordination between a lot of different participants in the market.

### **Interest Rates Futures Market**

William Shek

Head Regional Rates Trading, HSBC Hong Kong (China)

#### Introduction - Development of Bond Markets

Post the financial crisis in 1998, governments in this part of the world have been trying to create alternative funding choices. Governments have been trying to move markets away from the reliance on banking to more market-oriented products. This attempt to create alternative cost-effective choices for funding has led to the development of bond markets. Developing a bond market is not easy. There are several risks associated with it; settlement risks, infrastructure risk, systemic risk, are a few. In fact, there are new kinds of risks that exist today, that did not a decade ago. Therefore, a good education is important before entering this market. It is not clear whether addressing these risks will add to the liquidity of the market. However, to use an analogy, if you have a good house, the living of standard is bound to improve. So sound infrastructure leads to a safer market environment, which allows market participants to focus on their functions and not worry about other risks that could plague a market. For example, if the settlement risk is looked after, a trader can comfortably focus on just trading. There is a need to increase debt capital market products in Indonesia. The government bond curve is essential since it serves as a reference in the market. It is the riskiness of the asset relative to the country rating and is currently under progress in Indonesia.

In addition, the development of the corporate bond market is important as a long-term funding instrument, so that companies do not have to rely only on short-term funding from banks. The corporate bond markets offer a choice between bank funding and issuing long-term bonds. The competition among the banks and the corporate bonds market drives the spread lower, making the issuance of corporate bonds even more cost-effective. It is not clear how much progress is being made on this front in Indonesia. There has been some volatility in the corporate bond market but it needs a sustained effort and patience.

In a way, the two concepts are related. For the corporate bond market, the government bond curve needs to exist, since the corporate bonds will be priced of the benchmark. This benchmark curve is very important here and it must be stable and not swing around needlessly. A bank cannot price a corporate bond at one rate and then another rate in the afternoon because the benchmark is moving around. Therefore, a stable and liquid benchmark is important.

The government bond market requires a strong relationship and communication between the market and the banking system. The government uses the bond market for monetary policy and the banks need to participate. The banks need a relationship with companies. It is very important to make sure that the traders and the banks handling the corporate bond market are very well educated in this business, due to the risk management involved. The risk in the corporate bond market is the interest rate risk of the government bond and the credit spread.

The first risk can be hedged by a swap or bond futures (not in Indonesia). The second risk, credit risk, can be handled through a credit derivative. Corporate bonds generally tend to offer a higher yield compared to other investments, but this comes at a cost. There are two main risk components that a corporate bond investor needs to face, interest-rate risk, and credit-rate risk. Interest rate risk is the risk that occurs from interest rate movements. The credit rate risk is that a corporate issuer will default on its debt obligations. A higher yield is the pay-off for assuming all the other risks in corporate bonds and the difference between the yield on a corporate bond and a government bond is called the credit spread. Investors in corporate bonds hope that the interest rates preferably decline and the credit spread either remains constant or narrows. The

credit spread movements are difficult to predict since it depends on the issuer and the overall bond market. So a hedging mechanism becomes essential in corporate bond markets.

The most cost-effective hedging tool is bond futures but from time to time investors use a swap as well. For example, in Singapore, bond futures are illiquid but the swaps are liquid. The balance sheet product, which is a government bond or corporate bond, can be hedged by an off balance sheet product, which is bond futures or swaps. The swap is a more long-term hedging instrument unlike bond futures, which are a short-term instrument.

#### **Bond Futures**

There is a strong case for developing bond futures in this part of the world, although it is still not clear whether it will be successful. Bond futures are one of the most effective risk management tools. Both government market makers and swap traders alike like the tool, since they are easy to use and transparent to all users. The electronic platform has done a great job in terms of facilitating the market. Everyone is watching the same page on his or her screens and the human interaction is minimal. Clearly, if you have fewer intermediaries between you and the broker, the chances of manipulation drop. In many countries, the bidding of the spread is so thin; one need not even bother about the brokerage, if the product is launched successfully.

If you hedge the bond futures, you might hedge the directional risk but you transform one risk into other. Your risk is not fully gone, obviously. Therefore, you transform the directional risk into a basis risk. Therefore, if one wants to enter the bond futures market it is important to understand the basis risk between the bond and swap, cash bond against the futures. The difference is the cost of carry, as you know. If you borrow a 3 year, cash bond for 3 months that is replicating bond futures of a 3-month settlement. So you would end up having a cash bond and bond futures, cash futures, basis risk, which the trader needs to manage. The trader also needs to understand how to manage the swap bond futures risk which is basically a cash bond swap spread against a cash futures, bond futures, spread risks. The trader suddenly moves from a directional risk to a basis risk. Therefore, the basis risk is something that the traders have to be aware of when they step into the bond futures business.

#### **Regional Product Comparison**

		Rates Hedging Tools							
Country	Cash benchmark govt. bond	ls Bonds Futures	Swaps	Offshore					
Indonesia	Unpredictable liquidity	No	Unpredictable liquidity	Illiquid NDF and NDS					
Singapore	Good liquidity	Yes, but no one cares	Very active	Same as onshore					
				Active spot, illiquid					
Thailand	Steady liquidity	No	Steady liquidity	FX fwds and swaps					
Malaysia	Steady liquidity	Reasonable Klibor future	Steady liquidity	Super illiquid NDF					
Phillipines	Reasonable	No	Illiquid	Illiquid NDF and NDS					
HK	Good liquidity	Yes, but no one cares	Very active swaps	Same as onshore					
Korea	Good liquidity. Much more liquid than onshore	Super-active 3year bond futures; 5 year no one cares	Very active	Very active NDS. Very active 1 month NDF for spot trading					

As is seen in the above comparison across the region, futures are not an easy market to develop. In some markets like Singapore, investors prefer the swap to hedge risks. The swap market in Singapore is very well developed and as a result creating a futures market will prove to be difficult. Only one country, Korea (with the 3-year bond futures) is successful, whilst in most countries swaps are successful. There is also a five-year bond futures which no-one uses.

Indonesia has very unpredictable liquidity in government bond market and in swaps as well. In offshore products, the liquidity is even thinner. One of the most successful products in this region

is the three-year Korean bond futures, although no one cares about the five-year bonds. It is not clear why this product is such a success but it could be a function of GDP. A large Korean GDP implies more bonds that are outstanding and more rates risks in the economy. There is active involvement from swap and government traders because of high correlation with swap and government bond prices. This makes it an effective risk management tool. In Korea, if you examine the numbers provided by the futures exchange, 16% of the futures' users are foreigners. Only 0.5% cash bond activities are from the same set of foreigners. This may be due to the involvement in the hedge fund community.

One of the reasons for the low development of bond futures in countries like Singapore and Hong Kong (China) is that the counter-party credit risk is very low. As a result, investors tend to use the swap market a little bit more and do not bother with futures. The key to success of swaps is counter-party credit risk that could be a challenge in this country from time to time. Fixing risk is very important in doing bond futures.

In Korea, the fixing of the benchmark is done by a basket of a three-year bond. The fixing of the benchmark is very, very important. One observation in this part of the world: Usually when there is very high volatility, liquidity would disappear. Nevertheless, in this part of the world, interestingly, the bond volatility picks up a lot of foreign exchange volatility. In Indonesia, when the dollar-IDR spot moves around, the interest rate moves around too. There is a need to isolate foreign exchange volatility from the bond market to protect liquidity.

#### **Bond Futures for Indonesia**

In conclusion, bond futures are one of the best hedging tools available and Indonesia would benefit from such a mechanism. The market for Indonesian Rupiah interest rate swaps development may not be easy due to counterparty credit issues. The importance of the swap market is that both parties must keep their deal, which could be an issue here since the counter parties for these transactions, tend to be weak.

Hence, bond futures can be a real alternative for hedging since:

- Counterparty credit risk is the futures exchange. The exchange takes the risk in the case of bond futures.
- Transparency in bond futures is higher than the swap market, as bond futures are always traded on an exchange and swaps are bilateral transactions.
- It is a cost-effective risk management mechanism to use.

The following points need to be considered:

- Foreign participation needs to be encouraged. One reason for success in Korean bond futures is foreign access to use this product.
- Foreign exchange policy needs to isolate the bond markets from the foreign exchange volatility.
- Bond benchmark management for fixing to determine credible bond fixing mechanism
- Bond concentration to determine tenor.
- Contract size needs to be kept small first to attract more participants
- The easiest settlement is the cash settlement
- Have just one quarterly 3-year contract to concentrate on liquidity building initially.
- Develop the credit risk culture further.
- Develop asset-backed securities to allow smaller companies with no ratings to issue bonds.
- Broaden the investor base and issuer base through government help.

# Credit Derivatives and Credit Linked Products. An Essential Part of Indonesia's Debt Markets

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#### **Background on Credit Derivatives**

The concept of credit derivatives has existed in the financial system for some time now but the actual instrument has evolved in time. The definition of a credit derivative is "a financial instrument that isolates a credit risk from the underlying assets, and allows this credit risk to be hedged and traded separately." Conceptually it is similar to an insurance contract but offers many other advantages. It is possible to customize this financial instrument, so that it can be the most efficient way to hedge, transfer, and gain exposure to credit risk. In some senses, it is not a new product and has been in use by the banking system for several years, in the form of a bank guarantee or credit risk participation. In the simplest form of definition, if a bank was worried that one of its customers cannot pay back the loan, the bank could protect itself by transferring that risk to another party but still keep the loan on its books.

The product appeared on the scene in 1996. The financial crisis in countries like Thailand, Indonesia, Korea, Russian Federation, LTCM, forced people to hedge their books and the credit derivative was one of the ways to get all this credit risk and to get all the default risk out. From an almost negligible base, the market touched \$ 8.42 trillion in 2004 and currently is about \$ 12 trillion (see figure 44). Initially, using credit derivatives was not easy since it required excessive documentation. The market took to the product well, which resulted in a massive backlog of documentation. Some relief came through the International Swaps and Derivative Association (ISDA). The ISDA started standardizing credit derivative documentation. The association introduced standardized definitions, for one. Such as the 1998 confirmation of the OTC Credit Swap transaction and the 1999 ISDA credit derivative definitions. Then in 2003, a new set of definitions replaced the earlier ones.

**End-of-Period Total Outstanding Amounts of Credit Derivatives Contracts Globally** 9.0 8.42 8.0 **Examples of products:** 7.0 Credit Default Swaps **Total Return Swaps** 6.0 **Credit Spread Options** JSD Trillions Credit Linked Products 5.0 Nth-to-Default Baskets Credit Indices 4.0 3.55 Synthetic Collateralised Debt Obligations 3.0 2.00 2.0 1.20 1.00 1.0 0.59 0.35

2000

2001

2002

2003

2004

Figure 44: the Credit Derivatives Market is Maturing

Source: British Bankers Association, ISDA

0.04

1996

0.0

0.17

1997

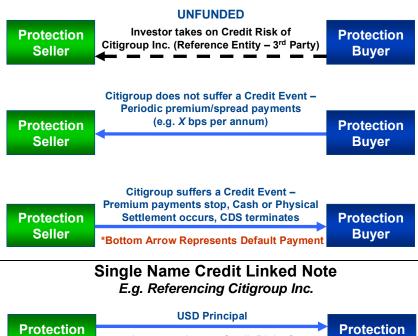
1998

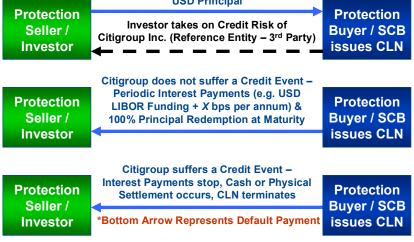
1999

Let us explain how a credit derivative works by taking the example of Citibank for two kinds of products. The first is a Credit-Default Swap, one of the fastest growing products of the derivatives market. This is a more refined form of credit guarantee. It covers the actual event of default and other events such as downgrading in rating. In the following chart, Citibank is the protection seller, the entity that needs the credit risk protection. As long as Citibank does not suffer any credit event, which could be a default by a customer or the downgrade of a customer rating. the bank continues to pay a regular premium to the protection buyer. As soon as Citibank suffers a credit event, the premium payments stop and the protection buyer compensates Citibank. The analogy is similar to that of an individual buying normal insurance cover. The individual continues to pay the premium but if the event occurs, - such as death - then the compensation is paid, and the insurance policy terminated.

The second kind of credit derivative is **Credit Linked Notes**, a securitized form of credit derivatives. In this case, the protection buyer issues notes, through a special purpose company or a trust. The investor needs to buy the notes from this trust and is

# Single Name Credit Default Swap *E.g. Referencing Citigroup Inc.*





paid a fixed or a floating coupon rate during the life of the note. The investor that buys these notes has to forgo the payment incase there a default or bankruptcy. However, if such an event does not occur, then the investor gets full principal redeemed at par.

#### Kinds of Credit Events

- Bankruptcy: When the Reference Entity is dissolved or becomes insolvent
- Failure to Pay: When the Reference Entity fails to make a payment due and any eligible grace period has lapsed. The minimum threshold requirement for this credit event to occur is US\$ 1 million.

- Obligation Default: When one or more obligations of the Reference Entity have become capable of being declared due and payable before their time, because of a default by the reference entity. The minimum threshold requirement for this credit event to occur is \$ 10 million.
- Repudiation / Moratorium: If the Reference Entity disclaims or rejects any of its obligations or declares or imposes a moratorium on any of its obligations, and Failure to Pay occurs
- Restructuring: Any restructuring in payment terms of the reference entity's obligations that is unfavorable to creditors.

In case of a credit event, there are two ways to settle the contract, physical and cash. In the case of a Credit Default Swap (CDS), for example, if an investor buys protection on a certain bond, and that bond defaults, there are two ways to settle it. In case of a physical settlement, one delivers the bond and the protection seller then pays the investor (protection buyer) the recovery price ie the par notional of the credit default swap. In case of a cash settlement, the CDS seller (Protection Seller) pays the CDS Buyer (Protection Buyer), par notional of the CDS minus the post-credit event value of the Reference Obligation.

In the case of a physical settlement in the Credit Linked Note (CLN), the CLN Issuer (Protection Buyer) delivers the defaulted Deliverable Obligation to the CLN investor (Protection Seller) and the issuer keeps the CLN principal amount. In case of a cash settlement, the CLN Issuer (Protection Buyer) returns to the CLN investor (Protection Seller) the Post-Credit Event market value of the Reference Obligation.

#### Benefits of Credit Risk Derivative to the Indonesian Market

The concept of the credit risk is one of the most important legs in the development of the debt market, along with the settlement risk, the repo (liquidity) and the futures market. If out in place, this concept could be the final requirement for a healthy debt market. Especially, for the corporate bond market. In most cases, the corporate bond markets in most countries, including Indonesia, face the following classic situation. A market-maker will faced with over-reaching his lending limit will refuse to bid for a corporate bond, or bid for a much smaller amount. Such situations then restrict the market makers abilities, to carry out their market-making function.

A credit derivatives market would be useful in such cases. It has a number of benefits.

It is an ideal hedging instrument and helps in the risk management of portfolios. Investors can reduce credit risk by buying credit protection instead of selling holdings of bonds and loans. A bank can customize its credit derivative and decide the tenure of the hedge. A bank may decide to hedge the risk for just three months since in that time, a loan is going expire and open up one more credit line. In this way, the tool aids the fair and efficient management of credit lines. Banks and lenders can also free up Regulatory and Economic Capital. Credit derivatives can help support the Indonesian rupiah corporate bond market and loan markets. In addition it can limit any sell-offs in IDR corporate bond and loan markets if market environment softens.

Let's try and illustrate the benefits through an example. Suppose some banks or fund managers have fully used up their credit lines to an Indonesian company "X", by lending to "X" and buying "X's" IDR bonds. Assume that the market weakens and there is a sell-off in the bond market. Unfortunately, no party can afford to bid for "X" bond since the credit line to that company is full. There could be a self-off triggered for this company "X" bond. This sell-off could trigger more panic selling from banks and fund managers who are being forced to liquidate "X's" bonds and loans in secondary market. All of this is occurring while there is no fundamental change in "X's credit quality profile. Here is how credit derivatives can help. If banks need to provide a 'support' on "X"

bonds, but are already full on "X" credit, they could buy short-dated protection on "X" to facilitate the transaction. If the bank feels that this problem in the bond market is going to last just six months, then it can buy credit for those six months. As the result, there would be less volatility in the corporate bond market when the market weakens. In conclusion, it offers some of the following additional benefits.

- Increase in liquidity of tradable IDR corporate bonds due to availability of hedging instrument
- Increase in liquidity of IDR Interest Rate Swaps
- Credit linked investment products are more flexible than bonds or loans. Credit default swaps and credit-linked notes can be customised to suit investors' requirements, e.g. tenor, fixed or floating.
- Encourage innovation in credit (bond & loan) markets
- Indonesia becomes an important international financial center for bonds, loans and credit derivatives products

#### Infrastructure required for Credit Derivative Market

A proper regulatory framework is essential for a credit derivative market to thrive. In Indonesia, it is a grey area, as to whether the instrument is allowed. Bank Indonesia's derivatives guidelines cover foreign exchange and interest rate derivatives, but market participants are uncertain about BI's position on credit derivatives. This issue needs to be addressed. Prior experience in other market has shown that a pre-requisite for this market to develop is clear guidelines and regulations. Many countries around the world have these guidelines in place or are in the process of creating them.

- US Federal Reserve Board (1996) "Supervisory Guidance for Credit Derivatives"
- UK FSA (1998) "Guide to Banking Supervisory Policy (Credit Derivatives)"
- Monetary Authority of Singapore (2000) "Notice to Banks MAS 627 Capital Treatment for Credit Derivatives"
- Hong Kong Monetary Authority (2001) "Supervisory Policy Manual (CR-G-12: Credit Derivatives)
- Bank Negara Malaysia and the Bank of Thailand are finalising their credit derivatives regulations. These two Asian countries have similar problems as Indonesia in the corporate bond market (outlined above).

#### Methods to Improve the Market

There are a number of international best practices in place.

- Adapting ISDA's transaction documents and definitions for the international credit derivatives market to the domestic market. The MRA in Indonesia is trying to copy the best practices from Chimera.
- Applying treatments of regulatory capital and credit relief that are compatible with international practice
- Following internationally accepted accounting treatments for credit derivatives
- Leaving the scope open for participants to produce variations of basic credit derivatives products
- Removing impediments to development of the domestic corporate bond and interest rate swaps markets

### **Clearing and Settlement Arrangements**

**Alan Taylor** 

International Consultant to SROs Funded by World Bank ASEM Grant Program

Clearing and Settlement (C&S) services cover everything from the trade execution process to the final settlement. It includes things such as trade confirmation, trade matching, use of the central counter-party, innovation in netting, the calculation of each participant's obligation for settlement and finally the settlement process itself – the movement of securities, of cash or other assets needed to achieve the final settlement.

#### There are three myths associated with C&S services.

**Enablers of Liquidity**: The notion that clearing and settlement has nothing to do with market liquidity is simply untrue. C&S may not provide liquidity directly in a market but in-adequate services can definitely hinder liquidity. The link between C&S and liquidity is an indirect one and has to do with confidence. Liquidity in a securities market ultimately depends on confidence in the safety and reliability of the settlement system. Traders will be reluctant to deal if they doubt that the trade will settle. From the Central Bank's point of view, a reliable settlement system is essential to the open market operations.

One size fits all: Central Counterparty Facility. There is no one model of infrastructure that fits all markets. To illustrate this point, examine one important feature of a market's infrastructure - the central counterparty facility. The existence of a central counterparty system is quite common in many derivatives markets and becoming increasingly common in cash equity markets as well. The three largest equity markets in the world – London, Frankfurt, and Euronext – all have a central counterparty system. However, bond markets do not usually use this facility. In Italy, for example, where the facility is available it tends to be optional. Why is this so?

The central counter-party needs to manage its exposures to all market participants. This implies sufficient collateral of margin arrangements in place. This in turn requires the use of trading bids. This is rather difficult to ensure in a non-regulated OTC (over the counter) market, that runs on telephone trading and a variety of trading platforms. The mechanism is not impossible, but is considerably harder to implement.

Another aspect of the central counter-party is the relationship between the number of trades and the number of settlements. Generally, the use of a central counter-party through the netting process reduces the number of the settlement movements that need to take place. However, this is not always the case. For example, if there is thin trading in the market, then there has to be twice the number of settlements in that market, resulting from that trade, by use of a central counter-party. On the other hand, if there is heavy trading in the market, clearly the number of settlement movements can reduced quite substantially by use of a central counterparty.

Despite the assumption, trading anonymity does not always accompany the central counterparty facility. In many derivatives markets, the trader knows the original counter-party and the use of the facility follows on from that. On the other side, it is possible to have anonymity in the market without the use of this facility, for example by use of an inter-dealer broker mechanism. In conclusion, the question of whether a central counter-party is suitable to a market really depends on a number of factors. There needs to be a careful analysis of cost and benefits associated with the use of a CCP. It is not always the perfect, universal solution.

Lack of Competition: It is widely believed that there is no room for competition in clearing and settlement services and generally market participants do not have a choice. The trading takes place on the exchange, it comes down to the clearing organisation and on to the central depository. However, a few markets in Europe do have a choice and there are multiple counterparties available to participants. There is a government bond market where participants have a choice of which central counter-party they wish to use. Obviously, in that case, the two CCPs cannot be entirely separate and must be linked. They must be clearing members of each other's systems. It is also important that they have similar capital requirements for membership and margin requirements. But the structure can work effectively.

It is also possible to have more than one central depository. The classic example of this is the Eurobond market, where two systems have been providing depository services in competition of each other; The Euroclear Clearance System, based in Brussels and CEDEL, based in Luxembourg. There is a link between the two depositories that allows them to participate in each other's systems. There also needs to be some provision for periodic rebalancing of the securities that each depository holds.

One option to create competition in C&S services is to tender them. The London Stock Exchange implemented this method three years ago when it put it's clearing arrangements out to tender. Three organizations were invited to participate; LCH Clearnet, the German Eurex Organisation and the DTCC (Depository Trust and Clearing Organisation). Eventually LCH Clearnet won the tender.

This arrangement may not be feasible for the Indonesian market at this time but can be considered in the future. About a decade or two ago, pan-European competition in the provision of trading, exchanges and clearing organizations and central depositories was unthinkable. The possibility of a similar system of competition in C&S services definitely merits a thought for the Asian markets and merits factoring into future infrastructure planning.

#### Impact of C&S services on the market

**C&S** services can have an impact on cost and risk in the market. The cost of a settlement has two components. One is the administrative cost, which is the operational cost of processing and clearing a trade. Two, is the funding cost of providing cash, such as the cost of providing collateral. The risk aspects are particularly important.

**Pre-settlement risk**: Sometimes called the replacement cost risk, it is the risk counterparty will default between the trade date and settlement date. In this situation, the contract obviously needs to close at the current market price, which could have moved against the investor, leading to a loss. The most obvious way to reduce this risk is by shortening the settlement period in the market. This is actually one of the driving forces behind reducing settlement period from T+3 to T+2 and maybe to T+1. Another technique is to use a central counterparty service.

Settlement risk: Also referred to as principal risk, this is the risk that the counterparty will fail in the middle of the settlement process itself. If this occurs, then there is a possibility that you have delivered the securities and do not have the cash. Alternatively, you have paid for the securities and then do not get delivery. Therefore, you stand to lose the whole amount of the trade. This risk can be minimised by providing a safe and efficient payment system, assuring delivery. The system must provide the guarantee that securities will only move if the cash moves. The use of a central counterparty facility can reduce this risk as well.

**Liquidity Risk**: This is the risk associated with transactions made in illiquid markets. The risk arises if a settlement is delayed for a reason other than a failure of the counterparty. It could occur when a stock is not available or the cash is not available. There are a number of ways to minimize this risk. One method is an effective system of matching trades well before settlement date. Dematerializing securities, as has been done in the Indonesian market, also helps

settlement flows. Another aspect of managing liquidity is ensuring that the funding market is well developed through instruments such as stock lending and repos. Having an assured DVP system (Delivery versus Payment) is another way to minimize this risk. Market participants might choose not to deal and settle with a participant with temporary liquidity difficulties, unless there is an efficient mechanism of DVP. Fearing a settlement risk problem, participants might be reluctant to settle with counterparty and hold back settlement instructions. This could ultimately lead to a chain of events that affects the entire market, and brings us to the last risk in this analysis – the systemic risk.

Systemic Risk: This risk affects an entire financial market or system and not just specific participants. The failure of counterparty or a single institution in the market spreads to the entire system, such as the payment system. The first line of defense here is to make sure that all the other risks in the market are adequately controlled. The second line of defense is to avoid overconcentration of risk in any one party. In clearing and settlement arrangements, there are two types of institutions where settlement risks can be concentrated. One is the payment bank and another one is a general clearing member, such as a broker who is clearing on behalf of other parties in the market. In both cases, one needs to monitor and avoid over-concentration of obligations.

#### Characteristics of Government Bond Markets

Government bond markets have a large trading size. Typically, much larger than cash equity markets, in the UK, for example, the average size of a government bond trade is 100 times the average size of equity trade. However, trading frequency is low. The large size of trades has two implications. First, the administrative cost of settlement arrangements is significant lower for government bonds trade, relative to the size of the trade itself. On the other hand, it means that if a settlement fails, or is delayed for some reason, then the impact is much more significant than the equity market.

The frequency of trading in the Indonesian market illustrates this point (see figure 45). The average frequency of trades is not that high, 100 or 150 trades a day. The average trade size is relatively constant over the past three years, at about Rp 30 billion (see figure 46). This is a typical trade size and trading frequency for Government bond markets. High trade size and coupled with relatively low trading frequency.

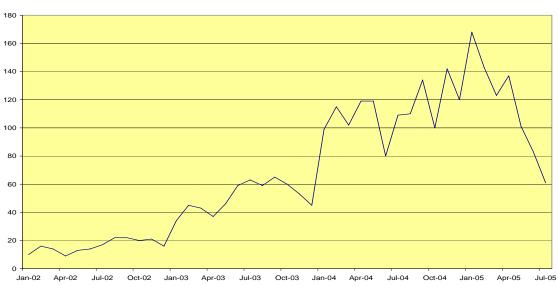


Figure 45: Indonesian Government bonds: Average daily frequency

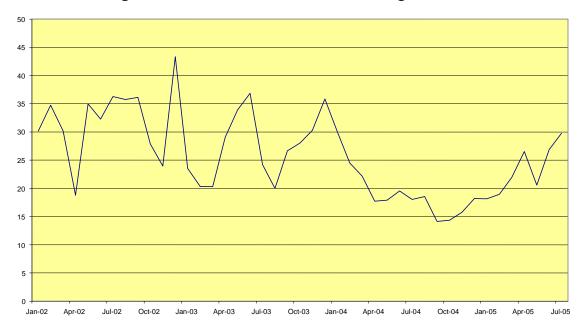


Figure 46: Indonesian Government Bonds: Average Trade Size

Most of the trading in government bond markets is OTC dealer-based trading, using a bilateral method, or a trading platform. One notable exemption to this is the Indian government bond market, which now has a very successful electronic order-matching system. Key investors are banks, insurance companies, and pension funds. The Central Bank normally provides settlement arrangements for government bonds.

#### **Characteristics of Corporate Bond Markets**

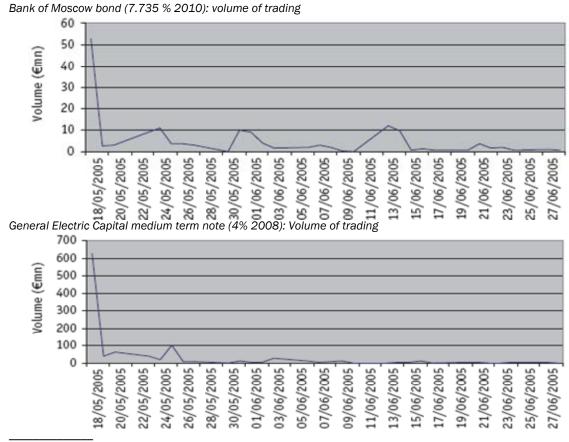
One of the most important issues in the corporate bond market is liquidity and tends to be concentrated in a few areas. Most corporate bonds simply do not trade actively. When a bond is issued, the liquidity in that bond is generally limited to the period of the issuance, the first few days or the first few weeks after issuing, because most investors buy and hold. The corporate bond markets, like government bond markets, are normally dealer-based OTC markets, but unlike government bonds they normally clear and settle through the proceedings they use for equities at the National Securities Depository. The following two charts illustrate that liquidity is concentrated in very few bonds and most trading takes place shortly after issuance. The first is a chart of trading in two corporate bonds in the London market (see figure 47). It is evident that most of the trading takes place in the first few days after issuance. After the first week or after the first month there is actually very little trading taking place in this market. The chart indicates that liquidity is concentrated in very few bonds.

2000 1800 1600 Number of bonds 1400 1200 1000 800 600 400 200 0 300-399 200-299 100-199 '10-49 400+ 50-99 '4-9 '2-3 Number of trades per day

Figure 47: UK non-government bond market

Source: ICMA

Figure 48: Most trading takes place shortly after issuance



Source: ICMA

#### **Indonesian Government and Corporate Bonds**

Like most markets, the Indonesian government bond market is an OTC market. It has a relatively low trade frequency but high trade value. The trade agreement process, the initial trade matching process is generally by fax, phone, or email. There is a buying natural system and then settlement instructions are passed to the system provided by the Central Bank, the Bank Indonesia. BI provides a very firm mechanism for a short DVP, with a link to the real-time gross settlement system (RTGS) at the central bank.

The current system has limitations. It is currently separate from the system used for equities but there are proposals to achieve a higher level of integration with the rest of the capital markets. In addition, system membership is currently restricted to banks. Currently, 160 banks participate in the RTGS, but in practice only 10 or 11 of these banks actually provide sub-registry services for investors to hold their government bonds. The trade agreement process is still manual between indirect participants. There are proposals to provide an organized trading platform, a central counterparty service, links between the BI settlement system and equities system.

The Indonesian corporate bond market too is mainly an OTC market, with some minimal trading on the Surabaya stock exchange. The clearing and settlement is through KPEI (Kliring Penjaminan Efek Indonesia), if exchange traded and through KSEI (PT Kustodian Sentral Efek Indonesia). This market shares some of the usual concerns with other corporate bond markets. Concerns about lack of transparency, lack of liquidity, the tax treatment. The individual tax treatment of corporate bond trading does make the netting process more difficult and creates somewhat of a burden on the clearing and settlement process.

The World Bank currently has a project in place for straight-through processing through standardization and a trade agreement process. In addition, the project also envisages strengthening the self-regulatory organizations to reduce the cost and risk in the markets.

# **Credit Rating**

# Importance of Credit Ratings for the Indonesian Bond Market

#### Charles Hulac

Director and Head of Asia Pacific Rating Advisory Services Citigroup Hong Kong (China)

Ratings are a very important tool for investors. There is a good correlation between rating and market spread or bonds prices but it is not a perfect system. There are many discrepancies and cases where factors other than ratings - such as technical factors - affect prices and market movements. Most large banks now have a small team that specializes in rating advisory work. The teams job is to work with clients to help establish a first-time rating relationship with the international rating agencies and advice them on presenting themselves to the rating agencies. The concept has really taken off in the last ten years and moved from developed countries to emerging markets.

With this rising power, some inherent conflicts are emerging, especially when the issuer is paying for the rating. These conflicts and the Asian crisis, which was a complete failure for the rating agencies, are raising concerns that a harder line needs to be taken with these agencies. There should be firm rules and regulations in place to ensure that these agencies hire qualified people.

It is important to remember what rating does not mean. Ratings are:

- Not a sweeping judgment on quality of a country or company's management or policy choices, value or prospects – but rather, judgment of performance relative to debt capacity and servicing ability
- Not a recommendation to purchase, sell or hold a particular security but rather an opinion of sovereign issuer's ability to meet its obligations on time and in full
- Not an audit analysis based on management accounts and un-audited internal analysis and projections – in addition to published financial statements and public statistics
- Not based only on information provided by issuer Sovereign ratings in particularly are heavily influenced by opinions of official creditors, private sector players, foreign investors and political analysts outside of the government
- Not primarily based on financial ratio guidelines.

#### **International Rating Agencies**

The following slide shows the Moody's ten year default probabilities versus average ten-year bond yields (see figure 49). Some observers would say that Moody's is a bit slow in moving up the rating and perhaps does not fully reflect some of the fundamental improvements in Indonesia over the past few years. One reason is that rating agencies tend to focus on the downside and look at the worst-case scenario in every situation versus equity analysts that tend to focus on the upside and growth potential.

This slide shows Moody's default statistics, similar to what Bapindo used in a previous presentation. The green bars show the ten-year corporate default probabilities, and the grey bar is the sovereign default capability, of all the sovereign rating in Moody's universe, which are 89 countries. The high rating category for both corporate and sovereign debt has a very low default capability. The default probability only appears when you get down to BB and below categories, the non-investment grade categories. The two bond yield curves are almost parallel.

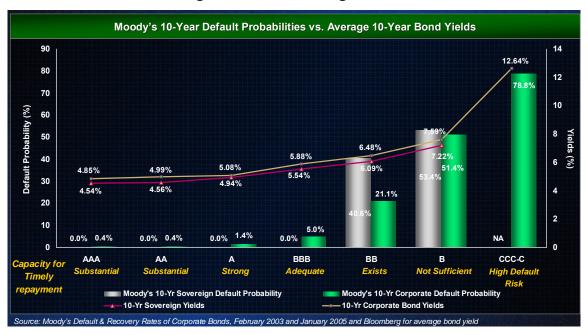


Figure 49: "What do Ratings Mean?"

There are three major international rating agencies. Moody's, Standard & Poor, and Fitch Rating, dominate the market. They are considered the international standard and it will be difficult for any other company to challenge the three. The business models are lucrative. There is annuity income coming in from the issuer. Every time the issuer does a bond issue, the issuer pays a fee for the international rating that is typically around 3 to 5 basis point of the bond size. The agencies also charge for access to the research database, which is quite an expensive service. Citigroup pays each of these agencies USD 100,000 for access to the database. Rating agencies make 75 % to 80 % of the revenues from bond fees, and the rest from subscription services.

There are a few differences between these agencies (see figure 50). However, there is one relatively new development in international rating that merits pointing out. The concept that no issuer can be rated higher than the government has been slightly blurred. Moody has started this trend when they published their new methodology five years ago. They now have the most porous sovereign rating ceiling. There have been a number of cases where there have been a number of defaults by the government but the corporate bank issuer was allowed to continue. There are now quite a few issuers in Indonesia who rate higher than the sovereign does. This is important in countries like Indonesia where the sovereign has a low rate.

**STANDARD Fitch**Ratings Moody's Investors Service &POOR'S More investor focused More quantitative focus Historic focus on bank ratings Somewhat more centralized Traditionally more issuer-As strong as Moody's or S&P approach friendly - though not in Asia in Financial Institution ratings Unsolicited ratings no longer Historically no "unsolicited ratings" - but has issued Third major rating agency – a policy international rather than US Public Information ratings Increasingly model-driven (PI) in Asia and unsolicited company **CB** ratings Most porous sovereign High service quality ceiling counters 3rd player status Somewhat more transparent analytical framework JDA methodology Strong in structured finance Tend to have lower bank Spin-off from Dunn & Unsolicited ratings common ratings than Moody's/Fitch Bradstreet in 2000 (now management controlled) Division of McGraw-Hill Division of Fimalac S.A.

Figure 50: Rating Agencies Overview and Approach

Take a look at Indonesia credit rating landscape. There are eight issuers that are rated above the sovereign rating (see figure 51) It is quite exciting to be rated above the sovereign ceiling, but not that significant for Indonesian issuers because only a couple of these companies actually make investment grade as per international rating agency standards.



Figure 51: Rating Landscape

#### Indonesia's Sovereign Rating History

Back in 1997, Indonesia got its first sovereign rating. The rating was investment grade, Baa3 from Moody's, BBB from Standard & Poor and BBBB- from Fitch. Shortly after that, the financial crisis hit the country and there was a drastic drop in the ratings to B3 in the case of Moody has and default level in the case of Standard & Poor. This kind of pattern is very unfortunate for the rating agency, and hardly re-assuring for an investor. It has taken more than five years for the sovereign rating to start inching upwards (see Figure 52). There are a number of countries where the rating has gone from investment grade, to default and back to investment grade in a relatively short time. Russia is one of the best examples of this. The country is now investment grade from all three investment agencies.



Figure 52: Indonesia Sovereign Rating History

There is a discrepancy between the ratings given by the domestic rating agency, Bapindo and Moodys (see Figure 53). The highest local rating in the case of Bapindo is AAA and just BBB in the case of Moodys. On an average, there is a difference of seven rating categories between the two rating agencies. We see a similar pattern in many countries in Asia. Over time as the sovereign rating is upgraded, the difference would narrow down one or two grades. This difference in ratings causes confusion in the minds of the investor.



Figure 53: Credit Ratings - Local versus International

Ratings are very important for a bond market participant. They are a signal of credit worthiness and a risk-adjusted performance measure. Most investors have a risk management framework that is tied to ratings and investment guidelines outline the allocation of the portfolio amongst differently rated securities. Many international investors specify at least two ratings, one of which has to be international. That encourages the competition in the rating business, which is why there is room for three rating agencies.

The following chart shows the relationship between spread and rating (see Figure 54). In this case, we are looking at the 5-year credit default swap spreads, which is liquid for emerging markets, versus credit ratings. This allows us to make a comparison across the emerging market universe of the correlation between bond pricing and ratings.

The squares above the curve are considered to be trading cheap and good value for the investor. If the squares move down, it benefits the investor. The chart shows that there is no perfect correlation between ratings and the spread and often-offbeat trends emerge.

Pakistan, for instance, has a lower spread than Indonesia and Philippine, although it has lower rating than both countries. The Philippines has a higher spread than both Indonesia and Brazil, although the Philippines is rated significantly higher than both these countries. The comparison between Brazil and Indonesia is fairly interesting. One of the reasons is that Brazil has done a lot to improve its debt profile over the past few years and the fact that it has a highly dedicated and efficient investor relations office, whose sole job is to communicate with the rating agencies.

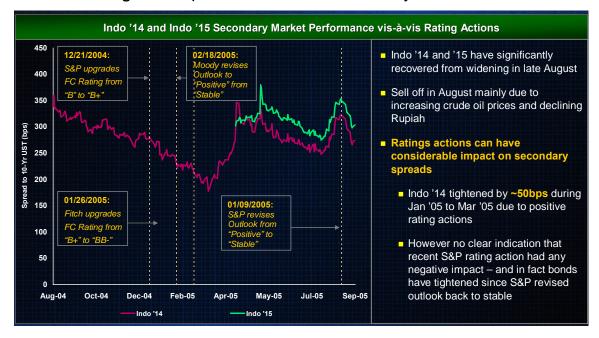
So clearly, the market does not take the ratings at face value. It does its own research and analysts have their own views on different countries.

Over the long term, ratings do matter and the general direction of the market tends to follow the ratings. In September 2005, when Standard & Poor announced that the outlook on Indonesia was changing from positive outlook to stable outlook, the bond market did not react negatively (see figure 55).



Figure 54: Credit Ratings and Default Risk Premium

Figure 55: Republic of Indonesia Bonds Secondary Performance



In the above chart, Indo '14 and '15 have significantly recovered from widening in late August 2005. The sell off in August was mainly due to increasing crude oil prices and declining Rupiah. Ratings actions can have considerable impact on secondary spreads. The Indo '14 tightened by ~50bps during Jan '05 to Mar '05 due to positive rating actions. However, there is no clear indication that recent S&P rating action had any negative impact – and in fact, bonds have tightened since S&P revised outlook back to stable.

However, the credit ratings announcements are events that do move markets. However, the impact can be positive or negative and often depends on how the announcement is integrated

with the media. Very often, they become self-fulfilling prophecy. Over the past five years, all three rating agencies have been courting excessive media coverage. This reflects the increasing competition between major rating agencies, especially for sovereign ratings.

Take a look at the Philippines case study of how the market reacts to various announcements. The big news that there is a delay in implementing fiscal reforms have caused a market reaction much quicker than the rating agencies have put that kind of announcement (see figure 56).



Figure 56: Philippine Case Study

The following chart shows that Indonesia government bonds are performing quite well relative to the rating level. The graph also indicates that the Philippine bonds are trading at a discount to the Indonesian bonds (see figure 57).

Although on the left hand side, the green line and the white line shows the relative different between the public of Philippine bond the 14 and 15 versus the Indonesian same majority and the Indonesian bond recently been trading something like hundred basis point better than Philippine just by the fact that the Philippine has better rating than Indonesia.

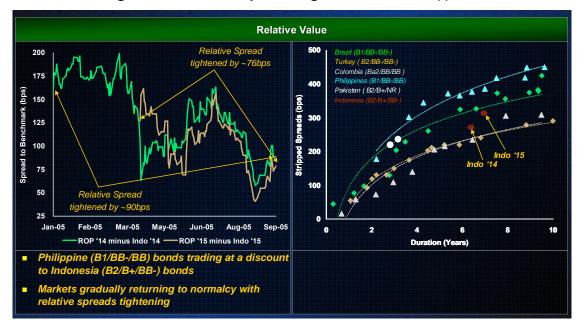


Figure 57: Market Reality vs. Ratings. Indonesia vs. Philippines

#### Steps to Improve Indonesia's ratings

There is room for the government of Indonesia to improve its communication strategy with the rating agencies. Rating agencies seek access to flow of regular information on the macro economy, monetary policy, external position, and fiscal performance. The recent changes in rating outlook from S&P from Positive to Stable – is partly a result of unclear communications from Indonesian government to market and to rating agencies.

Other countries – including the Philippines, Brazil, and Turkey - have established Investor Relations Offices that coordinate all the necessary information for both bond investors and rating agencies – linking the Central Bank, Ministry of Finance, and Other Government Bodies. Indonesia would benefit from such an investor relation office. All these countries have substantial foreign bonds and will continue to rely on the international market in the future. Bank Indonesia is in charge of communication with the rating agencies but politically sensitive subjects like the fuel subsidy issue might be outside the banks purview. Citigroup recommends that Indonesia considers setting up an Investor Relations Office – possibly connected to Debt Management department – but still linked closely to Bank Indonesia.

#### Conclusion

To conclude, ratings can be viewed as a passport into the international market but have a lot of value even for issuers not planning bonds. There is a lot of value in the rating service that agencies give to bond market, especially the government bond market and are a critical part of the infrastructure. They give investors comfort due to transparency and allow investors to do global benchmarking and relative value analysis. In the medium term, many more Indonesian issuers will seek international ratings, particularly as the Asian high yield corporate bond market develops. One of the most promising sectors could be the local government sector. In the next five years, the market expects regulation rules on local government banking will be relaxed.

Indonesia could also support more than one rating agency and competition amongst rating agencies is healthy. There needs to be more than one rating agency present in active government bond markets.

Rating agencies have learnt many lessons from the Asian crisis and are now focusing on avoiding earlier mistakes. For example, one of the reasons that Indonesia's sovereign rating has not moved up quicker, is the country's debt refinancing risk over the next couple of years, could be holding back the rating. Indonesia faces quite a challenge, a large refinancing need over the next couple of years. Rating agencies are trying to focus more on liquidity assets, react quicker to events, and stay in tune with market events.

## Role of rating agencies

#### Ananta Wiyogo

President Director, PT PEFINDO, Indonesia

A rating is an objective opinion regarding the ability and capability of the issuer to pay its obligation on time. A rating is not a recommendation to buy, hold, or sell the securities. The role of the rating agencies is to reduce information asymmetry between the issuer, investors and to enhance transparency in capital markets to help develop the credit cultures. By raising issuers' profile and accessibility to market, rating then become the basis for pricing bonds and risk management.

PEFINDO is a member of the ACRA (Asia Credit Rating Association), which consists of 19 creditrating agencies across East Asia including India, Japan, Korea, and China. The core principle of any rating agency is it must be independent from commercial interest, be transparent, control conflict of interest, and have an objective and consistent rating process. It is important that the rating criteria and methodology is published and accessible.

The rating process is a due diligence process. It starts with a rating request by the issuer. Then an analyst is assigned to the task and so on (see figure 58). It is important that the rating be signed by a committee not by the analyst. This committee consists of all the board of directors and the analysts. The process is very democratic and done through a vote. The result cannot be vetoed by anyone – including the directors.

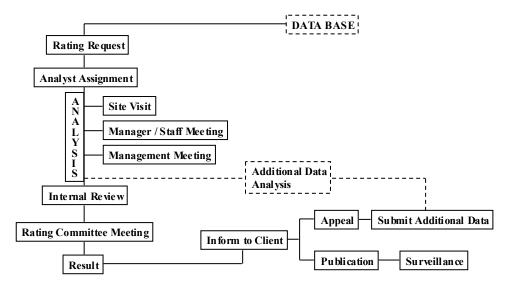


Figure 58: Rating Process

The client has two choices once informed about the rating. The company can publish it or if there is a disagreement, then they can appeal by submitting additional information to be reviewed again by the rating committee. This entire process takes a maximum of 30 working days, at the end of which a rating symbol is handed out. This symbol indicates the capacity of the issuer to meet financial commitment. The highest is the AAA rating and D is the default grade. The market

is divided into investment grade and non-investment grade paper. The investment grade starts with triple A minus up to triple A and the non-investment grade starts with the double b to the default grade (see Figure 59)

**Commercial Papers** Capacity to meet its Grade financial commitments  $_{id}$  AAA  $_{id}$  A1 Highest  $_{\text{id}}$  AA Very Strong Investment id A2  $_{\rm id}$  A3  $_{\mathsf{id}}$  A Strong Grade id A4 **Adequate** id BB  $_{\text{id}}$  B Somewhat weak Weak id B Nonid CCC  $_{\rm id}$  C Vulnerable Investment  $_{id}\;D$ Default  $_{id}$  D Grade

Figure 59: Rating Symbols

(+) or (-) are used to show relative strength in each category

#### Common Issues

A rating agency is paid by the issuer and not by the investor. This raises concerns about the independence of the credit rating agency and potential conflict of interest. In addition, rating agencies usually focus on giving rating opinions and not as other services just as advisory services.

The rating methodology and process needs to be disclosed publicly, preferably on the company's website every day. This allows anyone to make comments, comment on the process or the rating. It facilitates transparency in the rating process. The rating methodology needs to be in the prospectus of the issuer to indicate the rationale behind the rating.

Timeliness of disclosure is crucial if the rating needs to be accurate. As soon as an event occurs that could affect the issuer, there should be an early warning system. Such a system is called credit watch.

Lastly, there needs to be a consistency of rating. This can be determined by a default study (see figure 60).

Figure 60: Default Study

Cumulative Average Default Rates - Static Pool

	Time Horizon								
Rating	Y1	Y2	Υ3	Y4	Y5	Y6	Y7	Υ8	Υ9
idAAA	0.00	0.00	0.00	0.00	NA	NA	NA	NA	NA
idAA	3.23	3.23	3.23	3.23	3.23	3.23	3.23	3.23	NA
idA	5.88	16.99	20.70	22.31	24.75	24.75	24.75	24.75	24.75
idBBB	9.95	25.25	30.04	34.66	35.57	37.49	37.49	37.49	37.49
idBB	19.54	31.87	44.73	49.14	49.14	49.14	49.14	49.14	49.14
idB	22.73	37.01	42.28	42.28	42.28	42.28	42.28	42.28	NA
idCCC	69.23	69.23	69.23	69.23	69.23	69.23	69.23	NA	NA

This graphic is a bell curve and indicates that most of the rating is under the triple BBB category. The triple A and double A is a very small percentage, maybe just two companies. Based on the distribution base, Bapindo has created a default study with ten accumulative years' data with the static pool method. The probability of default for a single A bond within one year is 5.88%, within 2 years 16.99 %. The higher the rating the lower the probability of default. The probability of a single B issuer defaulting in the first year is 22.73 % and in the second year is 37.01 %.

This helps investors make decisions. If an investor wants to buy bonds from a double A rated issuer, then the chances of the issuer defaulting in the first year is almost negligible. The advisor can put some sort of provision on it.

#### Challenges for Domestic Credit Rating Agencies (DCRA)

DCRA's need to enhance the scope and the recognition of the rating. Sometimes a domestic rating agency is confined due to the low international recognition.

Harmonization of standards among the DCRA. Bapeman is a member of the ACRA and meets twice a year with the organisation to standardize rating criteria methodology and rating ethics.

Strengthen standard and expertise of DCRA's. Standards should be in line with international best practices. Generally, DCRAs are thought to have softer rating standards than international agencies.

Proposal to enhance standards of DCRAs. This can be done through equity participation by international CRAs in DCRAS. Strategic alliances with international CRAS, such as the one between Pefindo and Standard & Poor, would also enhance standards of domestic agencies.

# **Q&A Session Summary**

Moderator Paulus Nurwandono

#### Projection on Indonesian sovereign rating:

There is still a positive outlook on the rating from Fitch Ratings and Standard & Poor. However, Moody's has downgraded the country rating to stable. If the fuel issue is correctly handled, there is a high possibility that Moodys will upgrade Indonesia in the next six months. Fitch too might look at a ratings upgrade but S&P has already signaled that the rating agency is not planning a country rating upgrade soon. However, S&P is known to have a short-term and volatile outlook to their ratings compared to the other two agencies and tend to change their ratings due to market pressure. This is dependent on how the fuel hike issue is managed.

#### Ratings: A tool for market development or barriers for emerging markets like Indonesia?

Ratings are an early-warning indicator of corporate bankruptcy. Yet it is important to note that a good rating does not always negate the possibility of a default. On the other hand, once an issuer is rated as a default rating, then there is no market for that issue. That merits the question that in emerging markets like Indonesia, are ratings a tool for developing bond markets or a barrier?

In Indonesia, often there is a regulatory constraint, typically for investors such as banks and insurance companies, about buying securities rated below a particular grade. Many companies here in Indonesia have a non-investment grade rating, even in key sectors like telecommunications, cable television, and high-technology sectors. Nevertheless, these companies still take the trouble to come to the market, but are faced with a limited investor base. In Indonesia, in the single B category the investor base is restricted, but in the double B category, from double B+ to double B-, there is adequate demand for this paper.

#### Correlation between ratings and pricing.

The rating agency might rate issues differently but this does not reflect in the pricing. Differences in pricing risk are almost never equally reflected in differences in rating. This is a common problem across all emerging markets, including Indonesia. The explanation for this oddity is that the eventual correlation between rating and pricing is dependent on a number of factors. It depends on the relationship between the issuer and the investor, on the timing of the issuance, the interest rate at the time, and the industry in question. For example, two companies with the same rating, but in different industries could get different coupon rates. Ratings give a base indication of what the price should be but other factors ultimately effect the pricing decision.

Brazil is a country in the same rating bucket as Indonesia, but with much higher spreads than Indonesia has. This merits the question; do rating agencies look for a particular debt to GDP ratio or the composition of debt? Because this number is not very different for both the countries and yet one country has higher spreads than the other.

One of the positives in Brazil is that the country has been taking advantage of the low-interest environment over the past five years and has managed to re-profile their debt at a lower cost. The country has also been focusing on developing its domestic bond market. Rating agencies tend to look at future trends and the debt sustainability analysis six years down the line. However, Brazil's biggest advantage, relative to Indonesia, is that Brazil has very professional investor

relations people, whose full-time job is to provide information on the country and provide updates to the rating agencies. This factor could explain the difference in spreads.

#### **Rating the Rating Agencies**

The issue of rating the rating agencies is a credible one. There is an opinion expressed that people sitting in New York should not be passing judgment on far-flung countries. Is there too much weight being out on what media channels such as CNN and BBC come up with? What is the credibility of this rating? In fact, international rating agencies tend to be quite defensive about this. They try to deal with issue by disclosing as much as they can; code of conduct and methodology is published on the website, the number of analysts they have covering each portfolio. However, whether there should be a formal system for upgrading agencies is still under discussion. Perhaps rating agencies that send inspection teams into the countries they rate on an annual basis, to check whether local offices are actually following the right procedures and code of conduct, can get a higher rating. But this is still open to discussion.

To be fair to the rating agencies, there are senior analysts covering any region, not a junior analyst sitting in New York. Identifying the political risk is a key component of the sovereign rating analysis and all three international rating agencies pay great attention to it. Having said that it is interesting to note that both Fitch and S&P do have a higher rating for Indonesia, and they have an analyst base sitting in Singapore and Hong Kong (China) that follows the regions development closely. In addition, Fitch is trying to come up with some kind of structural approach of looking at political risk. Political risk is a very subjective subject and it is difficult to approach it in a scientific manner. Fitch is trying to make sure they the analysis is consistent across countries. The structure is available on the Fitch website.

Two institutions, the Central Bank and BAPEPAM, supervise the Indonesian credit rating agencies. These institutions can run spot checks on rating agencies, without any prior notice. They have access to all documentation and if something is amiss, these institutions have the power to revoke the agency's license. Another credibility check is that the rating agency has to publish the default study. This default study is something that even Moody's publishes every year. This detailed study looks at the rating performance over a ten-year period. This enables the investor to track how many investment grade defaults there were in a year.