### 7th ASEAN+3 Bond Market Forum (ABMF) Meeting
#### Hong Kong Monetary Authority, Hong Kong, China
#### 8-9 February 2012

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<tr>
<td>8 Feb 2012</td>
<td><strong>DAY 1: ABMF Sub Forum 1(SF1)</strong></td>
</tr>
<tr>
<td>08:30 – 09:00</td>
<td>Registration</td>
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<td>ABMF SF 1</td>
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<tr>
<td>09:00 – 09:10</td>
<td>Welcome Remarks by HKMA (Mr. Esmond Lee, Executive Director of Financial Infrastructure Department, HKMA)</td>
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<tr>
<td>09:10 – 09:20</td>
<td>Opening Remarks by SF1 Chair (Mr. Tetsutaro Muraki, Tokyo-AIM)</td>
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<tr>
<td>09:20 – 10:00</td>
<td>Session 1: Updates on Finalization of Phase 1 Reports</td>
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<tr>
<td>09:20 – 10:00</td>
<td>- Progress reporting (Mr. Seung Jae Lee, ADB Secretariat)</td>
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<tr>
<td>10:00 – 11:10</td>
<td>- Confirmation/comments by members</td>
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<tr>
<td>11:10 – 11:25</td>
<td>Coffee break (Room 5610 A-B)</td>
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<tr>
<td>11:25 – 12:15</td>
<td>Session 2: Developing common bond issuance program (Part 1)</td>
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<tr>
<td>12:15 – 13:30</td>
<td>Buffet Lunch (Room 5603 A-D)</td>
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<tr>
<td>13:30 – 14:30</td>
<td>Session 3: Establishing regional forum of SROs</td>
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<tr>
<td>14:30 – 15:30</td>
<td>Information session 1: Local currency bond issuance in the region</td>
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<td>15:30 – 15:50</td>
<td>Coffee break (Room 5610 A-B)</td>
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<td>15:50 – 16:30</td>
<td>Information session 2: Developing Islamic finance in the region</td>
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<tr>
<td>16:30 – 17:30</td>
<td>Session 4: Other issues of SF1</td>
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<tr>
<td>17:30 – 17:40</td>
<td>Wrap up by ADB Secretariat (Mr. Seung Jae Lee, ADB Secretariat)</td>
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<tr>
<td>17:40 – 17:50</td>
<td>Closing Remarks by SF1 Chair (Mr. Tetsutaro Muraki, Tokyo-AIM)</td>
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<td>18:45 – 21:00</td>
<td>Dinner hosted by HKMA (Chinese restaurant)</td>
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<td>TIME</td>
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<tr>
<td>9 Feb 2012</td>
<td>DAY 2: ABMF Sub Forum2 (SF2)</td>
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<tr>
<td>08:30 – 09:00</td>
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<tr>
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<tr>
<td>09:00 – 09:10</td>
<td>Opening Remarks by SF2 Chair (Mr. Jong Hyung Lee, KSD)</td>
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<tr>
<td>09:10 – 09:40</td>
<td>Session 5: Updates on Finalization of Phase 1 Study Reports</td>
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<td>- Progress reporting (Mr. Seung Jae Lee, ADB Secretariat)</td>
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<td>- Confirmation/comments by members</td>
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<tr>
<td>09:40 – 11:00</td>
<td>Session 6: Focus of Phase 2 activities (Part 1)</td>
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<tr>
<td></td>
<td>- Issues and approaches (Dr. Taiji Inui, ADB consultant)</td>
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<tr>
<td></td>
<td>- Transaction flows of Korea (Mr. Junwoo Chang, KSD)</td>
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<td>- Transaction flows of Indonesia (Ms. Margeret Tang, ICSD)</td>
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<td>- Transaction flows of Japan (Mr. Yuji Sato, JASDEC)</td>
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<td>11:00 – 11:15</td>
<td>Coffee break (Room 5610 A-B)</td>
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<tr>
<td>11:15 – 12:15</td>
<td>Session 6: Focus of phase 2 activities (Part 2)</td>
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<td></td>
<td>- Q and A</td>
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<tr>
<td>12:15 – 13:30</td>
<td>Buffet Lunch (Room 5603 A-D)</td>
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<td>13:30 – 14:40</td>
<td>Information session 3: Regional settlement infrastructure</td>
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<td></td>
<td>- RSI Options given by GoE report (Mr. Shinji Kawai, ADB Secretariat)</td>
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<td></td>
<td>- Linkage of NCSDs in the region (Mr. Shu-Pui Li, HKMA)</td>
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<td>- Cross border collateral management (Mr. Masayuki Tagai, JP Morgan)</td>
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<td>- Q and A</td>
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<td>14:40 – 15:20</td>
<td>Information session 4: Mitigating FX risks in the region</td>
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<td>- Increasing the number of settlement currencies (Mr. Lynn Mathews, CLS)</td>
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<td>- Q and A</td>
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<td>15:20 – 15:40</td>
<td>Coffee break (Room 5610 A-B)</td>
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<td>15:40 – 16:30</td>
<td>Information session 5: Pricing of bonds and sharing information</td>
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<td>- Valuation: the role and importance in emerging bond market (Mr. Mohd</td>
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<td>Shaharul Zain, BPAM)</td>
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<td>- Q and A</td>
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<td>16:30 – 16:50</td>
<td>Session 7: Other issues of SF2</td>
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<td>- Updates of phase 1 reports (Mr. Seung Jae Lee, ADB Secretariat)</td>
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<td>- Phase 2 membership (Mr. Seung Jae Lee, ADB Secretariat)</td>
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<td>- Q and A</td>
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<td>Wrap up session</td>
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<td>16:50 – 17:30</td>
<td>Future work plan and Wrap up (Mr. Seung Jae Lee, ADB Secretariat)</td>
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<td>- Q and A</td>
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<tr>
<td>17:30 – 17:40</td>
<td>Closing remarks by SF2 Chair (Mr. Jong Hyung Lee)</td>
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<tr>
<td>18:10 – 20:00</td>
<td>Cocktail hosted by HSBC (HSBC Main Building – Turner Room)</td>
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</tbody>
</table>
FINALIZATION OF PHASE 1 REPORTS

ADB Secretariat team

7th ABMF Meeting
Hong Kong, China, 8-9 Feb 2012

* Progress and plan presented in the presentation could be changed later
Progress up to end of Jan 2012

- Original Plan: Publishing by the end of Dec 2011

- However delays have been there
  - Additional comments from members.
  - Additional revisions from drafting team to ensure high quality of the reports
  - Longer than expected times for editing and type setting

* Hope to have your kind understanding on valuing more the quality rather than timing
## Progress up to end of Jan 2012

<table>
<thead>
<tr>
<th>Reports</th>
<th>Finalization</th>
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<td>Introduction</td>
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<tr>
<td>SF1</td>
<td>Δ</td>
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<tr>
<td>1. Executive Summary</td>
<td>Δ</td>
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<td>2. Comparative analysis</td>
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<tr>
<td>3. Market guides of each economy</td>
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<td>(Part 1) Bond markets and their infra.</td>
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<td>(Part 2) Bond markets and infra. in each economy</td>
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<td>(Part 3) Bond market infrastructure diagrams</td>
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## Plan for finalization – SF1

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<th>17 Feb</th>
<th>24 Feb</th>
<th>29 Feb</th>
<th>16 Mar</th>
<th>23 Mar</th>
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<td>Exec. Summary</td>
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<td>Market guides</td>
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<td>ADB Internal Process</td>
<td>Final Review By Team</td>
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**NOTE:**
- CIR – circulation of final version to members,
- MEM – respective member’s final confirmation,
- TEAM – ADB secretariat team’s revision, if any.
# Plan for finalization – SF2

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<td>TEAM</td>
<td>TEAM</td>
<td>ADB Internal Process</td>
<td>Final Review By Team</td>
<td>PUB</td>
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<td>Part1 (ASEAN+3)</td>
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<td>Part2 (each economy)</td>
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<td>Part1 (Diagrams)</td>
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</table>

**NOTE:**
- **CIR** – circulation of final version to members,
- **MEM** – respective member’s final confirmation,
- **TEAM** – ADB secretariat team’s revision, if any.
Thank you
Comments are welcome

ADB Secretariat Team
Scope and concept (tentative draft)

9 February 2012 in Hong Kong, China

Taiji Inui
NTT DATA Corporation
ADB Consultant - Financial Information Technology Specialist
Focus of Phase 2 activities

1. Issues and approaches (Dr. Taiji Inui, ADB consultant)
2. Transaction flows of Korea (Mr. Junwoo Chang, KSD)
3. Transaction flows of Indonesia (Ms. Margeret Mutiara Tang)
4. Transaction flows of Japan (Mr. Yuji Sato, JASDEC)
5. Confirmation/comments by members and experts
Agreed activities of SF2 phase 2

1. Continue identification of transaction flows, messaging and market practices.
   1-1 DVP flows and procedure for corporate bonds
   1-2 Interest payment and redemption of government bonds and corporate bonds
2. ISO 20022 Fit-and-gap analysis
3. Propose a roadmap and policy recommendations to standardize and harmonize transaction flows
4. Information sharing: LEI, data collection, …
Aim
- Identifying DVP flow and procedure of corporate bond in each market to discuss cross-border STP

Output
① Market infrastructure diagram and flowchart of DVP transaction for both domestic and cross-border trades
② List of Market practices which have some impact on the flow
③ Describe barriers against corporate bond transactions by non-residents.
Corporate Bond Market Infrastructure Diagram

Trading

Tokyo OTC market

Trade matching

JASDEC (PSMS)

CCP

Foreign Investors

Corporate Bond

Settlement match.

JASDEC (PSMS)

Bond settlement

JASDEC (Book-Entry Transfer System)

Cash settlement

BOJ (BOJ-NET Funds Transfer System)

JASDEC: Japan Securities Depository Center, Inc.

OTC: Over the Counter

PSMS: Pre-Settlement Matching System
Corporate bond related infrastructures and stakeholders will be made or added to the diagram.

NOTE: Exchange Market  
Central Bank  
Commercial Bank  

Direct intersystem connection  
Indirect connection. Trade data (bond settlement instructions) are entered to CSD by agent custodians.
Bond Transaction Flow
OTC Market (Corporate Bonds) / DVP (BOJ-NET) through Trade Matching (PSMS)

1. Trade

2. Trade Report

3. Trade Matching
   Standing Settlement Instruction

4. Notice of Matching Status

5. Settlement Matching

6. Notice of Matching Status

7. Holding Bonds

8. Fund Settlement Data for DVP

9. Payment Request (Cash)

10. Payment Instruction (Cash)

11. Notice of Receipt Completion (Cash)

12. Settlement Report (Cash)

13. Bond Settlement

14. Settlement Report (Bond)

BOJ (BOJ_NET)

JASDEC (Book Entry Transfer System)

JP
Bond Transaction Flow for Foreign Investors OTC Market (Corporate Bond) / DVP (Image)

1. Trade Order
2. Trade Order
3. Agreement on Trade & Confirmation
4. Trade Confirmation
5. Trade Confirmation

International Broker

Domestic Broker or Bank

Counter-party

PSMS (JASDEC)

Trading & Matching

Clearing

Matching & Settlement

Domestic Custodian

Global Custodian

As Direct Participant

As Cash Correspondent

As Cash Correspondent

JASDEC Book Entry System

BOJ-NET (RTGS)

Funding of Trades
Transaction Status Update
Settlement Confirmation
Settlement Confirmation
Settlement Instruction
Settlement Instruction
Cash Statement
Cash Statement
Cash Statement
Cash Statement

Notification of DVP Settlement and Acceptance
DVP Request
Confirmation of Debit/Credit
Notification of DVP Settlement and Acceptance
DVP Request
Confirmation of Debit/Credit
Aim

- Identifying flow and procedure of interest payment and redemption of government bond and corporate bond in each market to discuss cross-border STP

Output

1. Flowchart of interest payment and redemption for both domestic and cross-border trades
2. List of Market practices which have some impact on the flow
3. Describe barriers against interest payment and redemption for non-residents.

Could you refer to the presentation from Chair and Vice-chairs, please?
1. Some members and experts have expressed the intentions that corporate actions should be included to the scope of phase 2 activities. The importance of corporate actions has been pointed out from the viewpoint of enhancing straight-through-processing (STP). For example, “Statement on the Need for Universal, Standardized Messaging in Corporate Actions”, written by the Association of Global Custodians (AGS), recommended that issuers should comply with international standard, ISO 15022, when they contact with market participants.

2. In this regard, if market participants conform to ISO 20022, information distributions about various types of corporate actions will become more flexible because of using XML. Also, issues about corporate actions have been discussed in various institutional frameworks. Therefore, discussions of ABMF need to be focused on the main purposes of the ABMF.

3. Considering the current situation of ASEAN+3 and our outcome of the Phase 1, interest payment and redemption of government bond (and possibly corporate bond) would be appropriate topics to start our survey on corporate action.
Issuance of government bond and payment

① Draw the typical business flowchart for issuance of government bond to domestic investors.

② If non-residents are able to participate in issuance of government bond, draw the flowchart of the process.

May be less important issue and handled later phase.
2. ISO 20022 Fit-and-gap analysis

Aim

2-1 Fit & gap analysis of business flows and market practices

- Identifying gap of DVP flow of government bond in each market with model cross-border DVP flow to realize cross-border STP

2-2 Fit & gap analysis of message items

- Identifying gap of government bond settlement instruction and confirmation of each market with that of ISO 20022 (sese 023.001.01 and sese 025.001.01) to realize cross-border STP

Output

2-1 Identifying technical barriers including market practices preventing the flow from cross-border STP

2-2 Identifying message items in each market different from international standard
2-1 Fit and gap analysis of business flows and market practices.

1. Fit and gap analysis between typical cross-border DVP transaction and local procedures
   ① By presenting model cross-border DVP transaction flow, challenges and barriers from cross-border STP viewpoints in each market considering market practices and business processes will be surveyed.
   ② Technical barriers related to DVP transaction flows including market practices may be discussed. Also, short-term solutions, and medium- to long-term solutions are to be answered from the members and experts.

   - Barriers on each market presented by GoE report may be a good reference for this survey. Also, other barriers may be discussed.

2. Using a tool (MyStandard provided by SWIFT)
   - MyStandard is a tool for fit and gap analysis between local practices adopting SWIFT message and ISO20022.

   Based on the phase 1 survey of DVP transaction flows, discuss the solutions for barriers to enhance cross-border DVP on each market.
## Cross-border DVP (1/2)

<table>
<thead>
<tr>
<th>Case</th>
<th>Bond</th>
<th>Cash</th>
<th>Seller</th>
<th>Buyer</th>
<th>Market</th>
<th>Comments</th>
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<tbody>
<tr>
<td>1</td>
<td>JPN</td>
<td>JPN</td>
<td>JPN</td>
<td>JPN</td>
<td>JGB is traded in Tokyo market and settled in BOJ-NET. Cash is settled in BOJ-NET for JPY.</td>
<td>Tokyo (Domestic) market</td>
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<tr>
<td>2</td>
<td>JPN</td>
<td>JPN</td>
<td>JPN</td>
<td>HKG</td>
<td>JGB is traded in “cross-border market” and settled in BOJ-NET. Cash is settled in BOJ-NET for JPY.</td>
<td></td>
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<td>3</td>
<td>JPN</td>
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<td>HKG</td>
<td>JPN</td>
<td>JGB is traded in “cross-border market” and settled in BOJ-NET. Cash is settled in BOJ-NET for JPY.</td>
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<td>4</td>
<td>JPN</td>
<td>JPN</td>
<td>HKG</td>
<td>HKG</td>
<td>JGB is traded in Hong Kong market and settled in BOJ-NET. Cash is settled in BOJ-NET for JPY.</td>
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<td>5</td>
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<td>HKG</td>
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<td>JGB is traded in Tokyo market and settled in BOJ-NET. Cash is settled in CHATS for HKD.</td>
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<td>JPN</td>
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<td>HKG</td>
<td>JGB is traded in “cross-border market” and settled in BOJ-NET. Cash is settled in CHATS for HKD.</td>
<td>Sell JGB in Tokyo to get HKD in Hong Kong. “Cross-border market” needs to be created.</td>
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<td>7</td>
<td>JPN</td>
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<td>JGB is traded in “cross-border market” and settled in BOJ-NET. Cash is settled in CHATS for HKD.</td>
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<td>8</td>
<td>JPN</td>
<td>HKG</td>
<td>HKG</td>
<td>HKG</td>
<td>JGB is traded in Hong Kong market and settled in BOJ-NET. Cash is settled in CHATS for HKD.</td>
<td>Local subsidiary of Japanese bank gets liquidity in Hong Kong by selling JGB in Hong Kong.</td>
</tr>
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</table>
## Cross-border DVP (2/2)

<table>
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<th>Market</th>
<th>Comments</th>
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<tbody>
<tr>
<td>9</td>
<td>HKG</td>
<td>JPN</td>
<td>JPN</td>
<td>JPN</td>
<td>EFBN is traded in <strong>Tokyo market</strong> and settled in CMU. Cash is settled in BOJ-NET for JPY.</td>
<td>Local subsidiary of Hong Kong bank gets liquidity in Tokyo by selling EFBN in Tokyo.</td>
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<td>EFBN is traded in “<strong>cross-border market</strong>” and settled in CMU. Cash is settled in BOJ-NET for JPY.</td>
<td>Sell EFBN in Hong Kong to get JPY in Tokyo. “Cross-border market” needs to be created.</td>
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<td>JPN</td>
<td>EFBN is traded in Tokyo market and settled in CMU. Cash is settled in CHATS for HKD.</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>HKG</td>
<td>HKG</td>
<td>JPN</td>
<td>HKG</td>
<td>EFBN is traded in “cross-border market” and settled in CMU. Cash is settled in CHATS for HKD.</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>HKG</td>
<td>HKG</td>
<td>HKG</td>
<td>JPN</td>
<td>EFBN is traded in “cross-border market” and settled in CMU. Cash is settled in CHATS for HKD.</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>HKG</td>
<td>HKG</td>
<td>HKG</td>
<td>HKG</td>
<td>EFBN is traded in Hong Kong market and settled in CMU. Cash is settled in CHATS for HKD.</td>
<td>Hong Kong (domestic) market</td>
</tr>
</tbody>
</table>
2-2 Fit & gap analysis of message items for government bond DVP transaction

1. 10 common elements for Securities Settlement Instruction and Securities Settlement Confirmation

   http://smpg.webexone.com/

2. Detailed Fit & Gap analysis based on ISO 20022 sese 023.001.01 for Securities Settlement Instruction and sese 025.001.01 for Securities Settlement Confirmation
Business Process Flowchart
China Bond Market (OTC Market) / DVP

Seller

1. Trade

2. Trade Data

Buyer

CFETS

1. Trade

2. Trade Data

CCDC (CBGS)

3. Trade Data

4. Settlement instruction

5. Settlement instruction matching

6. Settlement contract producing

7. Contract executing on delivery day

8. Seller’s bond locking

9. DVP fund settlement request

10. Fund transfer processing

11. Fund transfer notice

12. DVP Fund settlement notice

13. Bond Delivery

14. Settlement confirmation

PBoC (CNAPS)

14. Settlement confirmation

11. Fund transfer notice

12. DVP Fund settlement notice
## Message Elements
10 Common Elements in Settlement Instruction

<table>
<thead>
<tr>
<th>Business elements</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Message reference</td>
<td>16x / Max 35 text</td>
</tr>
<tr>
<td>2. Trade Date</td>
<td>ISO 8601 Date/Time</td>
</tr>
<tr>
<td>3. Settlement Date</td>
<td>ISO 8601 Date/Time</td>
</tr>
<tr>
<td>4. Quantity of Financial Instrument</td>
<td>Expressed as units (equities) or face amount (Fixed Income)</td>
</tr>
<tr>
<td>5. Financial Instrument</td>
<td>ISO 6166 International Securities Identification Number [ISIN]</td>
</tr>
<tr>
<td>6. Settlement Amount</td>
<td>Currency and amount</td>
</tr>
<tr>
<td>7. Safekeeping Account to be credited or debited</td>
<td>35x / Max 35 text</td>
</tr>
<tr>
<td>8. Place of Settlement</td>
<td>ISO 9362 Business Identifier Codes [BIC] taken from the list of PSET’s BIC published on <a href="http://www.smpg.info">www.smpg.info</a>. See also Place of Settlement MP.</td>
</tr>
<tr>
<td>9. Receiving/Delivering Agent</td>
<td>ISO 9362 Business Identifier Codes [BIC] or CSD Local Code</td>
</tr>
<tr>
<td>10. Client of Receiving/Delivering Agent</td>
<td>ISO 9362 Business Identifier Codes [BIC]</td>
</tr>
<tr>
<td>11. Country specifics as per local market practice (if any)</td>
<td>Country specifics as per local market practice (if any)</td>
</tr>
</tbody>
</table>

Source: SWIFT (Ms. Morioka), original source SMPG “Settlement Common Element” http://smpg.webexone.com/
**10 Common Elements Analysis (1/2)**

<table>
<thead>
<tr>
<th>Settlement Instruction</th>
<th>Business Element Name</th>
<th>Definition</th>
<th>Format</th>
<th>Multiplicity</th>
<th>Optional/ Mandatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>① Message reference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Optional</td>
</tr>
<tr>
<td>② Trade Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Mandatory</td>
</tr>
<tr>
<td>③ Settlement Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Optional</td>
</tr>
<tr>
<td>④ Quantity of Financial Instrument</td>
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<td></td>
<td></td>
<td></td>
<td>Optional</td>
</tr>
<tr>
<td>⑤ Financial Instrument</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Optional</td>
</tr>
<tr>
<td>⑥ Settlement Amount</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Optional</td>
</tr>
<tr>
<td>⑦ Safekeeping Account to be credited or debited</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Optional</td>
</tr>
<tr>
<td>⑧ Place of Settlement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Optional</td>
</tr>
<tr>
<td>⑨ Receiving/Delivering Agent</td>
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<td></td>
<td></td>
<td></td>
<td>Optional</td>
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<tr>
<td>⑩ Client of Receiving/Delivering Agent</td>
<td></td>
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<td></td>
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<td>Optional</td>
</tr>
<tr>
<td>⑪ Country specifics as per local market practice (if any)</td>
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## 10 Common Elements Analysis (2/2)

<table>
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<tr>
<th>Settlement Confirmation</th>
<th>Business Element Name</th>
<th>Definition</th>
<th>Format</th>
<th>Multiplicity</th>
<th>Optional/Mandatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>① Instruction Identification</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>② Trade Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>③ Effective Settlement Date</td>
<td></td>
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<tr>
<td>④ Effective Settled Quantity of Financial Instrument</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>⑤ Financial Instrument</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>⑥ Effectively Settlement Amount</td>
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<tr>
<td>⑦ Safekeeping Account to be credited or debited</td>
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<tr>
<td>⑧ Place of Settlement</td>
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<td></td>
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</tr>
<tr>
<td>⑨ Receiving/Delivering Agent</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>⑩ Client of Receiving/Delivering Agent</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>⑪ Country specifics as per local market practice (if any)</td>
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</table>
### Government Bond Settlement Instruction (1/3)

<table>
<thead>
<tr>
<th>Index/Ref</th>
<th>Message Item</th>
<th>Or</th>
<th>〈XML Tag〉</th>
<th>Mult.</th>
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<tbody>
<tr>
<td>111</td>
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<td>〈TxId〉</td>
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</tr>
<tr>
<td>21</td>
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<td>21.1</td>
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<tr>
<td>21.2</td>
<td>Payment</td>
<td></td>
<td>〈Pmt〉</td>
<td>[1..1]</td>
</tr>
<tr>
<td>22</td>
<td>Payment</td>
<td></td>
<td>〈Pmt〉</td>
<td>[1..1]</td>
</tr>
<tr>
<td>22.2</td>
<td>Enrollment</td>
<td></td>
<td>〈Enrol〉</td>
<td>[1..1]</td>
</tr>
</tbody>
</table>

Source: Bank of Japan
Government Bond Settlement Instruction (2/3)

<table>
<thead>
<tr>
<th>Index</th>
<th>Message Item</th>
<th>Value</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>12.0</td>
<td>ReceivingSettlementParties</td>
<td>12.2</td>
<td>Party1</td>
</tr>
<tr>
<td>12.16.0</td>
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<tr>
<td>12.16.1</td>
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<td></td>
<td>or</td>
</tr>
<tr>
<td>12.16.2</td>
<td>ProprietaryIdentification</td>
<td></td>
<td>or</td>
</tr>
<tr>
<td>12.16.3</td>
<td>Identification</td>
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</tr>
<tr>
<td>12.16.4</td>
<td>Issuer</td>
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<td>12.16.26</td>
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</tr>
<tr>
<td>12.16.27</td>
<td>Identification</td>
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</tr>
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</table>

Source: Bank of Japan
### Message Definition Report

ISO 20022 Securities Settlement and Reconciliation/Maintenance Cycle 2010-2011

Edition May 2011, Approved by the Securities SEG on 1 February 2011

An example and image

Source: Bank of Japan
Issues:
1. Fit and gap analysis based on 10 common elements is sufficient?
2. Fit and gap analysis based on detailed message items of ISO 20022 is too much for ABMF SF2?
3. Fit and gap analysis for other messages is necessary?
3. Propose a roadmap and policy recommendations

Aim

① Sharing roadmap in each economy to standardize and harmonize transaction flows

② Propose a reference roadmap in ASEAN+3 to realize cross-border STP to standardize and harmonize transaction flows

Output

① Roadmap and policy recommendations

② More specifically, a roadmap Identifying technical barriers including market practices preventing the flow from cross-border STP and finding short and medium- to long- term solutions to remove the barriers will be discussed
1. ISO20022 migration plan
   ① Basic migration plan of ISO 20022 from ISO 15022 (or proprietary) to ISO 20022.
   ② Migration plan in each economy.

2. Medium- to long- term plan of life cycle of market infrastructures including trading, clearing, and settlement systems
   ③ Medium- to long- term plans and strategies about infrastructures and market practices. Also, background idea of such plan and strategies need to be discussed.

3. Events in ASEAN+3
   ④ Events, projects and other plans which may have some impacts on bond trading and settlement.
   ⑤ Purposes and polices of each events and projects
4. Technology advancement related to bond trading and settlement

⑥ Technology advancement: available schedule, merits of using these technologies. If possible, grounds and reasons.

1. Policy recommendation relating to barriers on technical aspects and business processes including market practices will be focused on and discussed mainly.
2. Policy recommendation relating to regulatory changes including tax and foreign exchange regime will not be main issues but shared as reference information. Information on regional infrastructures will also be shared.
Follow-up of phase 1 surveys

1. Review and update the bond market diagrams and flowcharts
   - In phase 2 surveys, we will study corporate bond markets: overview of market, related organization, trading, CCP and security and cash settlement. For comparison to corporate bond market, members and experts will update phase 1 surveys as necessary.

2. Matching
   - Trade matching, post-trade matching, pre-settlement matching and settlement matching may be discussed for government bond and corporate bond more in detail.

3. Cross-border STP
   ① In order to identify business processes (such as cross-border repo, securities lending, cross-border collateral) with higher priority from cross-border STP viewpoint, further input from members and experts will be appreciated.
   ② Cut-off time of each market may be surveyed and discussed from cross-border STP perspective.
4. Structure of securities accounts
   - Members supply the information about structure of securities account in each CSD. (E.g. structure of registry)

5. Country codes
   - Phase 1 report was edited according to ADB publication rules including country codes, which is different from international standard (ISO 3166-1 alpha2), ADB team will work on adoption of ISO country code in phase 2 activities.
<table>
<thead>
<tr>
<th>Country</th>
<th>ISO 3166-1 alpha-2</th>
<th>ISO 3166-1 alpha-3</th>
<th>ADB 3 letter code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunei Darussalam</td>
<td>BN</td>
<td>BRN</td>
<td>BRU</td>
</tr>
<tr>
<td>Cambodia</td>
<td>KH</td>
<td>KHM</td>
<td>CAM</td>
</tr>
<tr>
<td>People’s Republic of China (PRC)</td>
<td>CN</td>
<td>CHN</td>
<td>PRC</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>HK</td>
<td>HKG</td>
<td>HKG</td>
</tr>
<tr>
<td>Indonesia</td>
<td>ID</td>
<td>IDN</td>
<td>INO</td>
</tr>
<tr>
<td>Japan</td>
<td>JP</td>
<td>JPN</td>
<td>JPN</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>KR</td>
<td>KOR</td>
<td>KOR</td>
</tr>
<tr>
<td>Lao, PDR</td>
<td>LA</td>
<td>LAO</td>
<td>LAO</td>
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<tr>
<td>Malaysia</td>
<td>MY</td>
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</tr>
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<td>Myanmar</td>
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<td>MMR</td>
<td>MYA</td>
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<td>PHI</td>
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<td>SGP</td>
<td>SIN</td>
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<td>Thailand</td>
<td>TH</td>
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<tr>
<td>Viet Nam</td>
<td>VN</td>
<td>VNM</td>
<td>VIE</td>
</tr>
</tbody>
</table>
If there is any other issues to be discussed as a topic of phase 2 of ABMF SF2 studies, could you propose it, please?
Could you do me a favor, please?

ADB consultant for SF2 would greatly appreciate it if members and experts provide with following information currently available in each market soon after this meeting.

① DVP flow of corporate bond
② Interest payment flow of government bond
③ Interest payment flow of corporate bond
④ Market practices and rules in each economy
⑤ Latest market guide including URL explaining them
Preaching to Buddha
Thank you so much
Objectives and challenges of SF2

**SF2: Enhancing regional STP**

Some barriers may have impact on message standard and cross-border STP

Source: The ABMI GoE report
Bond issuance & Entitlement processing

Jun-Woo Chang
Assistant Manager of Bond Entitlement Team
Korea Securities Depository
I. Korea Treasury Bond Investment
   1. Overview & Primary Market
   2. Secondary Market
   3. KTB Redemption
   4. KTB Primary Dealer
   5. Taxation

II. Corporate Bond Investment
   1. Blanket Registration & OTC Market
   2. Exercising Rights
I. Korea Treasury Bond Investment
I - 1. Overview

- **Concept**
  - Korea Treasury Bond (henceforth KTB) is a typical government bond that the Korean government issues to raise funds for public projects or to redeem outstanding KTBs.

- **Changes in Benchmark yields**
  - Issue amount and trade volume of KTBs are the highest in the government bond. (Especially 5 year KTB)
I - 1. Primary Market

- **Types of KTBs**

  - 3-yr
  - 5-yr
  - 10-yr
  - 20-yr
  - KTBi

- **Outstanding amount of KTB**

  ![Graph showing the outstanding amount of KTB over years with percentage of GDP]

  - Source: MOSF in Korea, <ktb.mosf.go.kr>
  - BOK, <www.bok.or.kr>
I - 1. Primary Market

- Issuance Procedure & Method

- MOSF establishes the KTB issuance schedule
- MOSF submits the plan to National Assembly
- Consideration and approval of National Assembly
- Announcing issuance schedule and notifying tender offer
- Auction
- Announcement of auction result
- Delivery of KTBs and payment of bid amount

<table>
<thead>
<tr>
<th>Types of KTBs</th>
<th>Auction Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 – year KTBs</td>
<td>First Monday of each month</td>
</tr>
<tr>
<td>5 – year KTBs</td>
<td>Second Monday of each month</td>
</tr>
<tr>
<td>10 – year KTBs</td>
<td>Third Monday of each month</td>
</tr>
<tr>
<td>10 – year inflation linked KTBs</td>
<td>Third Wednesday of each month</td>
</tr>
<tr>
<td>20 – year KTBs</td>
<td>Fourth Monday of each month</td>
</tr>
</tbody>
</table>
Fungible Issues

- Fungible KTBs are issued by unifying the issuing date and the coupon rate at the interval of 6 months, 1 year, or 2 years.
  - 3 and 5-year KTBs: At 6 month interval
  - 10 and 20-year KTBs: At annual interval

- Issuance of fungible bonds
  - In this system, bonds being issued for a certain period of time are required to have the same terms and condition such as maturity and coupon rates. Thereby, the bonds issued during this period are treated as a single issue.

- Why?
  - To boost liquidity
  - To reduce the administrative cost
  - To establish the reliable benchmark yield
I - 1. Primary Market

Key Points:

**KTB Issuance Plan in 2012**

- Issuance amount (expected)
  - Plan to issue 79.8 trillion KRW (1.5 compared to amount of 2011)
  - 20.8 trillion KRW (The net increase) is aimed at financing.
  - 54.8 trillion KRW is for refunding including redemption at maturity.

**Prior Task in 2012**

- 30-yr KTB issuance
- Bid amount adjustment of individual investor (1 → 0.1 million KRW)
- Extension of interval in fungible issuance (1 year → 2 years)

**Long-term Task**

- Maintaining monthly issue amount as evenly as possible
- Dispersion of maturity in Gov’t bond
- Improvement of risk management system
I - 2. Secondary Market

**Overview**

- The KTB secondary market is known for its high liquidity.
  - The KTB turnover ratio (trading volume/outstanding) of gov’t bonds including monetary stabilization bond is the highest in the Asian region, followed by Japan and excluding Hong Kong whose outstanding volume is small (Source : ADB).
  - Bid-ask spread is 0.7bp (as of 2011), the smallest in the Asian countries (Source : ADB).

<High interest rate level : Comparison of 5-year Government Bond Yield>

- Credit Rating : S&P
- Source : Bloomberg, yield as of May 22, 2009
I - 2. Secondary Market

- Turnover Ratio of Gov’t Bond

- Bid-Ask Spread of Gov’t Bond

* Source: ADB, Asian Bonds Online, as of 2011
I - 2. Secondary Market

- Korea Exchange Bond Market (Overview)
  - KRX created the government bond market (the KTS) to facilitate the trading of government bonds between the government bond dealers and securities firms.

<table>
<thead>
<tr>
<th>Market Division</th>
<th>Purpose</th>
<th>Eligible Bonds</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Investors Market</td>
<td>KTS</td>
<td>❖ Stimulation of GB Issuance &amp; Trading ‧ Establishing fair price by constructing benchmark yields</td>
<td>❖ KTBs ‧ MSBs ‧ KDIC bonds</td>
</tr>
<tr>
<td></td>
<td>Repo Market</td>
<td>❖ Funding through collateral bonds ‧ Facilitating bond lending &amp; borrowing</td>
<td>❖ KTBs, MSBs, KIBs &amp; corporate bonds(AA or higher)</td>
</tr>
<tr>
<td>Ordinary Bond Market</td>
<td>Retail Bond Market</td>
<td>❖ Stimulating individual investors' bond investment</td>
<td>❖ Bonds whose quotation amount is less than KRW 5 bn.</td>
</tr>
<tr>
<td></td>
<td>Small-lot Public Bond Market</td>
<td>❖ Providing liquidity to the non-voluntarily holding bonds</td>
<td>❖ National Housing Bonds ‧ Seoul Subway Bonds ‧ Regional Development Bonds</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>❖ Trading equity-linked bonds etc.</td>
<td>❖ Equity-linked bonds ‧ Other corporate bonds</td>
</tr>
</tbody>
</table>


I - 2. Secondary Market

- **KRX Market System**
I - 2. Secondary Market

- OTC Market Overview

![Diagram of OTC Trading Mechanism and Structure]
I - 2. Secondary Market

- Foreign Investment Procedures

1. Standing Proxy Agreement
2. Investment Registration
3. Opening Securities A/C
4. Order
5. Settlement
6. Trading
7. Settlement

*FSS : Financial Supervisory Service

KTS, OTC Market

Foreign Investor
Custodian (Securities Company, Bank)

Securities Company

---

*Standing Proxy Agreement:
- Standing Proxy (Standing Proxy)
- Custodian
- Foreign Investor
- Securities Company
- Foreign Investment Procedures

*FSS : Financial Supervisory Service
I - 3. KTB Redemption

- **Overview**
  - The principal amount of KTBs is fully paid back on the maturity date and the interest is paid every 6 months until maturity.
I - 3. KTB Redemption

- KTB Redemption Procedures

1. Entrust Redemption Business
2. Debit from Government Checking A/C
3. Transfer Principal & Interests Into Checking A/C at BOK
4. Transfer Principal & Interests Into KTB holder’s A/C
5. Transfer Principal & Interests Into KTB holder’s A/C

- KTB Amount of Redemption

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<thead>
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<th>2003</th>
<th>2004</th>
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<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
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<tbody>
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<td>14.7</td>
<td>8.7</td>
<td>14.4</td>
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<td>24.3</td>
<td>27.7</td>
<td>40.1</td>
<td>43.4</td>
<td>48.5</td>
</tr>
</tbody>
</table>

unit: KRW tril.
I - 4. Primary Dealer

- **Overview**
  - Primary Dealership was introduced in 1999 to reform the financial market structure.
    - To promote the market for KTBs
    - To establish the stable funding base for the government
    - PDs have played a leading role in the development of Korea bond market.
  - As of the end of 2010, there are 20 PDs (12 securities companies, 8 banks)
I - 4. Primary Dealer

- Qualification for PD

  Submission of request for designation as PD

  Review by the MOSF
  Financial soundness, trading record for benchmark KTB,
  Trading record in the secondary market, amount of outstanding KTBs held

  Decision on suitability as PD

- Privileges & Duties of PDs

<table>
<thead>
<tr>
<th>Privileges</th>
<th>Duties</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Exclusive participation in the KTB auctions</td>
<td>- To meet 10% minimum underwriting requirement of the total KTBs issuance</td>
</tr>
<tr>
<td>- The optional right to purchase KTBs within 3 business days after the auction at the cut-off yield (Non-competitive bid II)</td>
<td>- Two-way market making quotes must be displayed for all benchmark issues every trading day.</td>
</tr>
<tr>
<td>- Regular consulting partners for the Government Bond Division of the MOSF</td>
<td>- Trading of KTBs (to trade at least 200% of the average KTB trading volume of PDs)</td>
</tr>
<tr>
<td></td>
<td>- KTB holdings at least KRW 1 bn.</td>
</tr>
</tbody>
</table>
### Taxation on Individual & Corporation

<table>
<thead>
<tr>
<th></th>
<th>Individual Investor</th>
<th>Institutional Investor</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Applicable act</strong></td>
<td>Income Tax Act</td>
<td>Corporate Tax Act</td>
</tr>
<tr>
<td><strong>Taxable income</strong></td>
<td>Coupon payments</td>
<td>Coupon payments + Capital gains</td>
</tr>
<tr>
<td><strong>Withholding tax</strong></td>
<td>Coupon payments are subject to withholding tax</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(The tax amount is calculated by length of holding period.)</td>
<td></td>
</tr>
<tr>
<td><strong>Withholding tax rate</strong></td>
<td>14% (The inhabitant tax equivalent to 10% of the income tax will be levied.)</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Collection of withholding tax</strong></td>
<td>When the coupon is paid or when the bonds are sold, the withholding tax on the coupon will be withheld according to the length of holding period.</td>
<td></td>
</tr>
<tr>
<td><strong>Withholding agent</strong></td>
<td>◆ When the bonds are sold: In principle, the seller collects the tax. (If the seller is an individual, the buyer (corporation) instead withholds it.)</td>
<td>◆ When the coupon is paid: Bond coupon payer collects the tax.</td>
</tr>
</tbody>
</table>
I - 5. Taxation

### Withholding Tax Rate on Bond Interest Income

<table>
<thead>
<tr>
<th>Class</th>
<th>~’90.12</th>
<th>~’95.12</th>
<th>~’97.12</th>
<th>~’98.9</th>
<th>~’99.12</th>
<th>~’00.12</th>
<th>~’01.6</th>
<th>~’04.12</th>
<th>~present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cor. tax</td>
<td>12%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>22%</td>
<td>20%</td>
<td>20%</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>Ind. tax</td>
<td>16%</td>
<td>20%</td>
<td>15%</td>
<td>20%</td>
<td>22%</td>
<td>20%</td>
<td>15%</td>
<td>15%</td>
<td>14%</td>
</tr>
</tbody>
</table>

### Taxation on Foreigners

- Foreign corporations and non-resident investors are subject to 14% of income tax on interest income and 20% of tax rate on capital gain.
  - Whether taxation is imposed or not as well as the tax rate are determined by a bilateral treaty between Korea and countries concerned.
- Exemption from withholding tax on interest income and capital gains for foreign investors was abolished.
  - KTBs purchased until Nov. 12 2010, are non-taxable before they are sold.
  - The interest income of KTBs purchased between Nov.13 and Dec.31 2010 is non-taxable, but the interest, accrued after Dec.31 2010, is taxable.
Ⅱ. Corporate Bond Investment
Ⅱ - 1. Blanket Registration

- Concept
  - Under the Bond Blanket Registration System, bonds are registered in KSD’s name in bond registrar.
    - Combined System (Deposit System + Registration System)
    - Relevant Law: Financial Investment Services and Capital Market Act (Article 309), Registration of Bonds and Debentures Act
  - Through the Blanket Registration System, settlement of bond transaction, receipt of principle and interest payment, and associated operations are processed through the Participant Account Book and Client Account Book, simplifying settlement and entitlement processing.

- Bond Registrars
  - Bank of Korea: Government bonds (except National Housing Bond)
  - Banks: Bonds issued by themselves
  - KSD: Public & Corporate bonds
II - 1. Blanket Registration

- Flow Chart of Blanket Registration

1. Proposal (blanket registration)
2. Notifying blanket registration
3. Writing on Register
4. Writing on Account book
5. Notifying the entry of Account book
6. Writing on Client Account book
7. Notifying the entry of Account book
Bond Trade & Settlement in OTC Market

- Most of corporate bonds are traded in OTC market.
  - Korea Financial Investment Association (KOFIA) presents [FreeBond] system to trade bond in OTC market.
  - [FreeBond] gives the messenger service and trading board.
- Corporate Bond is cleared(matched) and settled in KSD.
- Settlement Structure in KSD is DVP Model I.
II - 1. OTC Market

- Foreign Investment in Bond

![Graph showing trading and holding volumes of Korean bonds from 2001 to 2010.]

- Source: FSS in Korea, <fisis.fss.or.kr>
II - 2. Exercising Rights

- **Overview**
  - Entitlement management of corporate bond is to do business services for task from participants or their clients.
Ⅱ - 2. Exercising Rights

Flow Chart of Bond Redemption and Payment

- **KFTC**: Korea Financial Telecommunications & Clearing Institute
- **KSD**: Korea Stock Exchange
- **BOK**: Bank of Korea
- **Payment Bank**
- **Registrar**
- **Bond Issuer**
- **Bondholder**

1. Application for Exchange
2. Submit Bonds (D-day)
3. Netted Settlement Amount Calculation (D-day)
4. Net Settlement (D-day 14:30)
5. Credit to Account (D-day 14:30)
6. Payment of Principal & Interest (D-1)
7. Principal & Interest Payment List Notification
8. Payment

*KFTC: Korea Financial Telecommunications & Clearing Institute*
II - 2. Exercising Rights

- **Equity Linked Bond**
  - Equities are issued by Rights Exercise of Equity Linked Bonds such as Convertible Bond (CB), Exchangeable Bond (EB) and Bond with Warrant (BW).
Thank You
DVP Settlement & Interest/Redemption Payment
Indonesia

7th ABMF Meeting - 9 February 2012
Bond Trading

- A bond exchange trading platform is available, provided by the IDX for the exchange members.

- Market participants prefer to transact bonds in the OTC Market.

- Market participants have the obligation to report each bond transaction to Bapepam-LK through Bonds Transaction Reporting System within 30 minutes.
* Prematching – Buyer and Seller calculate the nett proceed of the Seller after deducting the withholding tax of the Accrued Interest during the holding period and Capital Gain (if any). Seller Custodian needs to provide the info on the Purchase Price and the tax rate (tax documents to be provided if treaty rate to be applied)
Corporate Bond - Interest Payment

- KSEI calculates the interest amount due to each bond holder, including the tax obligation.
- All payments executed by the payment banks are based on KSEI’s instructions.
- Foreign Investors who are not domiciled or who do not wish to enjoy treaty benefits, are not required to submit any tax document.
**Corporate Bond – Redemption Payment**

1. Announcement
2. Info on Purchase Price & Tax Docs for investors who want to enjoy tax treaty benefits
3. Tax Docs + info on Purchase Price
4. List of Bond Holders
5. Fund Payment (gross before tax)
6. Redemption and Interest Payment (Nett of Tax)
7. Credit Redemption and last Interest Payment or Repatriate
8. Tax Documents + Tax Payment
9. Proof of Tax Payment
10. Tax Doc
11. Proof of Tax Payment

- KSEI calculates the interest and redemption amount due to each bond holder, including the tax obligation.
- All payments executed by the payment banks are based on KSEI’s instructions.
- Foreign Investors who are not domiciled or who do not wish to enjoy treaty benefits, are not required to submit any tax document.
THANK YOU
Interest and Redemption payment process for Corporate Bonds

7th ABMF

Feb.9, 2012

Japan Securities Depository Center, Inc.
1. payment request (before income tax)

2. fund payment (before income tax)

3. bondholders’ tax status data

4. payment request (after income tax)

5. approval

6. interest payment (via BOJ Net)

7. Interest payment

8. tax payment (local tax) *

* each AMI will pay local tax respectively.

1. payment request

2. fund payment

3. bondholders’ tax status data

4. payment request (after income tax)

5. approval

6. interest payment (via BOJ Net)

7. Interest payment

8. tax payment (local tax) *
Redemption Payment (with final interest payment)

1. Payment request (before income tax)
2. Fund payment (before income tax)
3. Redemption (DVP)
4. Payment request (after income tax)
5. Approval
6. Redemption Net (via BOJ)
7. Redemption payment
8. Tax payment (local tax) *

* each AMI will pay local tax respectively.
Interest / Redemption Payment

- Issuer shall make fund payment to Paying Agent.

- Interest and redemption payment to bondholders shall be made via multi-layer holding structure by the order of:

  → → → paying agent
  → → → account management institutions
  → → → bondholders

- Bondholders shall entrust Account Management Institutions in advance to receive the interest and redemption payment on their behalf.
Interest / Redemption Payment

- Relevant-parties shall pay the interest and redemption, calculated based on balance of:

  - **Issuer → Paying Agent:**
    - *The total issue amount of the applicable book-entry bond.*

  - **Paying Agent → JASDEC Participants:**
    - *The amount of the applicable book-entry bond for each JASDEC Participant.*

  - **Account Management Institutions → Bondholders:**
    - *The amount of the applicable book-entry bond for each account of the bondholders in the Transfer Account Book maintained by the Account Management Institutions.*

- Interest shall be calculated by multiplying balance, interest rate and terms of interest calculation period...

- All fractional numbers are rounded down.
Thank you.

Yuji SATO
Japan Securities Depository Center, Inc.
Pan-Asian CSD Alliance
Pilot Platform and Add-on Services

9 February 2012
Pan Asian CSD Alliance Initiative

- **Objective**
  - To improve post-trade infrastructure for bond clearing and settlement in the region

- **Participants**
  - A group of central banks and CSDs in the region

- **Issued a White Paper in June 2010**
  - Outlined blueprint of a Common Platform Model in Asia
  - Recommended Pilot Platform as a tactical interim solution for gradual migration to Common Platform Model

- **Benefits of a gradual approach**
  - Pragmatic and flexible. Allows individual countries to develop their local bond markets at own pace and join the Pilot Platform when ready
  - Leverage existing infrastructures to limit upfront investment
  - Individual CSDs to remain independent and retain autonomy in terms of legal entity, finance, business development and customer relationships
Pilot Platform

- **Key services:**
  - BNM’s outbound link to Euroclear
  - CMU’s outbound link to BNM
  - Full coverage of Asian local bonds in the ICSD securities database (on-going)

- **Improved cross-border access:**
  - Malaysian investors may hold and settle cross-border foreign securities on a DvP basis via BNM’s link to Euroclear
  - Hong Kong investors may hold and settle Malaysian securities (e.g. domestic Sukuk) on a DvP basis via CMU’s link to BNM
  - Raised awareness on Asian local bonds as the bond details will be visible to a larger group of international investors

- **Early movers:** HKMA, BNM, Euroclear

- **Target launch date:** March 2012
Pilot Platform: Overview

Flexible access

Leverage existing links

Foreign currency facilities

Direct access

ICSD database

Increase coverage of ICSD database

Issuer CSD
- Local systems
- Local database

Issuer CSD
- Local systems
- Local database

Issuer CSD
- Local systems
- Local database

Investor CSD

Foreign currency RTGS connectivity tool
Evolution of Pilot Platform: Add-on Services

1. Cross-border Collateral Management Service

Existing Arrangement

- Global Triparty Repo System (e.g. Euroclear, JP Morgan)
  - Collateral Taker/Lender
  - Securities
  - Cash
  - (2) Settlement
  - Securites
  - Cash
  - Collateral Giver/Borrower

- (1) Funds transfer
- Domestic market
- Triparty repo service agreement

- Lender (collateral giver)
- Master repo agreement (e.g. GMRA)
- (3) Funds transfer

- Borrower (collateral taker)
Evolution of Pilot Platform: Add-on Services
1. Cross-border Collateral Management Service (Cont’d)

Proposed Arrangement – Phase I

- Enhance financial stability by improving settlement efficiency of repo transactions entered between domestic participant and international participants who may not be members of the same repo system
- Phase 1 – CSD-intermediated access to global tri-party repo system to be launched in H1 2012

The figure illustrates the proposed arrangement for Phase I, which includes:

- **Global Triparty Repo System** (e.g. Euroclear, JP Morgan)
- **CMU System** (act as an agent)
- **CMU Member** (repo buyer/lender)
- **Euroclear Member** (repo seller/borrower)

A triparty repo service agreement connects these parties, with the CMU System acting as an agent between the CMU Member and the Euroclear Member, facilitating the settlement process.
Evolution of Pilot Platform: Add-on Services
1. Cross-border Collateral Management Service (Cont’d)

Benefits

- Extend the services of global triparty repo systems to cover domestic financial institutions
- Provide additional channels for collateralised lending/borrowing and enhance financial stability of local markets
- Increase transparency and help monitoring of monetary stability of the local market
- Target launch date: H1 2012
Evolution of Pilot Platform: Add-on Services

1. Cross-border Collateral Management Service (cont’d)

Proposed Arrangement – Phase II

- To increase settlement efficiency for both local banks and foreign institutions with cash legs settlements in local RTGS system
- Phase 2 – DvP links between global tri-party repo system and local RTGS systems to be launched by Dec 2012
Evolution of Pilot Platform: Add-on Services

1. Cross-border Collateral Management Service (cont’d)

Benefits

- Enhance the settlement efficiency – no need to transfer funds between the domestic market and global triparty repo system
- Particularly important in times of crisis and when the market lacks of liquidity
- Target launch date: Dec 2012
Evolution of Pilot Platform: Add-on Services

2. Corporate Action Platform

Existing arrangement

- Paying agents do not have account positions of bond holders and thus require Asian CSD to provide such information
- Lack of standardized distribution channels for bond issuers to disseminate corporate action information to bond holders, e.g. by fax and/or by email
- Lack of standardized communication format and timetable between individual paying agents and bond holders – creates issues for custodians that provide a safekeeping service
- Manual intervention increases operational risk
Evolution of Pilot Platform: Add-on Services

2. Corporate Action Platform (Cont’d)

Proposed Arrangement

- A platform accessible by multiple CSDs in the region to achieve harmonization, improved efficiency and lower operational risks and costs in handling complex and high volumes of corporate actions for more debt securities

- To be launched in H2 2014
Evolution of Pilot Platform: Add-on Services

2. Corporate Action Platform (Cont’d)

Benefits

- Improve efficiency and reduce operational risks and costs
- Promote standardization across Asian markets
- Facilitate CSDs to handle more complex and higher volume of corporate actions
- Attract more varieties of debt instruments to be lodged in the local CSDs, e.g. convertible bonds, corporate bonds such as RMB bonds
Possible first component of the Common Platform

- The local infrastructure (e.g. the local Central Securities Depository - CSD) acts as collateral agent.
- The local infrastructure retains its contractual relationships with its domestic members.
- Settlement occurs within local CSD accounts.
- Collateral management is fully integrated with local settlement processing.
- Benefits from enhancements made to the Common Collateral Management System.

Principles
Way Forward

- Prepare for the launch of the Pilot Platform
- Continue exploring additional services to be introduced to gradually migrate to the Common Platform Model
- Organise workshops/bilateral meetings for interested economies
- Invite more countries to join
CROSS BORDER COLLATERAL MANAGEMENT
WORKING WITH MARKET INFRASTRUCTURES TO ENHANCE GLOBAL LIQUIDITY

Masayuki Tagai, Executive Director
Global Market Infrastructures
Treasury & Securities Services
WHY COLLATERAL?
Financing Options and the Increasing Need for Collateral Management

**Unsecured Financing**
- 100% credit/counterparty exposure
- High finance charge
- Highest capital requirements

**Buy Sell-Back/Sell Buy-Back**
- Secured but generally undocumented
- Initial margin provision but no variation margin
- Coupon payment netted with the forward price
- No substitution and no open trades

**Repurchase Agreements (Repo)**
- Secured and documented
- Initial and variation margin provisions
- Seller retains economic benefit of securities
- Favorable capital treatment

**Global Awareness of Counterparty Credit Risk**
- Increased bilateral collateralization
- Bank to bank, broker
- End-users

**Heightened Risk Awareness and Cost**
- Public debt crisis
- Changes in eligibility of collateral
- Excess collateral a common cause of concern

**Enhanced Capital and Liquidity Standards**
- Basel III as a baseline
- Strengthened and accelerated in parts of Asia
- Liquidity ratios and non-cash collateral

**Incoming OTC Derivatives Clearing Requirement**
- G20 commitment
- End user exemptions and third country issues
- Domestic CCPs crowding APAC markets
Global Market Overview

Global Market Overview - Dec 2010

<table>
<thead>
<tr>
<th>Region</th>
<th>Americas</th>
<th>Europe</th>
<th>Asia</th>
<th>Total</th>
<th>Asia Ex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding ($Bn)</td>
<td>$4,200</td>
<td>$7,700</td>
<td>$1,440</td>
<td>$13,340</td>
<td>$185</td>
</tr>
<tr>
<td>% of GDP</td>
<td>71.2%</td>
<td>63.6%</td>
<td>8.2%</td>
<td>37.5%</td>
<td>1.67%</td>
</tr>
</tbody>
</table>

Outstanding includes repos and reverse repo: Source Federal Reserve Bank New York, International capital market Association; Amalgamation of Asia Central Banks data

- Mature repo markets represent 60 - 70% of GDP
- Government and corporate debt issuance accounts for over 60%
- Asia repo market currently below 10% of GDP
- Repo markets take 10 - 20 years to mature
- Central Banks and Monetary Authorities integral to repo market developments

Securities Lending Market: Securities on loan- Dec 2010

<table>
<thead>
<tr>
<th>Region</th>
<th>Americas</th>
<th>Europe</th>
<th>Asia</th>
<th>Total</th>
<th>Asia Ex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Outstanding ($Bn)</td>
<td>$1,068</td>
<td>$781</td>
<td>$110</td>
<td>$1,959</td>
<td>$38</td>
</tr>
<tr>
<td>Non Cash Collateral ($Bn)</td>
<td>$286</td>
<td>$515</td>
<td>$69</td>
<td>$870</td>
<td>$21</td>
</tr>
<tr>
<td>% of Non Cash Collateral</td>
<td>27%</td>
<td>66%</td>
<td>63%</td>
<td>44%</td>
<td>54%</td>
</tr>
</tbody>
</table>

Source: dataExplorers

- Total lendable assets $13Tn; 15% on loan
- 56% Cash Collateral
- Asia has 6% of total outstanding

Global Credit Exposure - Dec 2010

<table>
<thead>
<tr>
<th>Region</th>
<th>Americas</th>
<th>Europe</th>
<th>Asia</th>
<th>Total</th>
<th>Asia Ex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Credit Exposure ($Bn)</td>
<td>$769</td>
<td>$2,139</td>
<td>$307</td>
<td>$3,215</td>
<td>$146</td>
</tr>
<tr>
<td>Collateralized Exposure ($Bn)</td>
<td>$538</td>
<td>$1,497</td>
<td>$215</td>
<td>$2,251</td>
<td>$102</td>
</tr>
</tbody>
</table>

Source: Bank of International Settlement and ISDA Market Review of OTC Derivative Bilateral Collateralization Practices

- Total notional value of OTC Derivatives $601 Tn
- 78% of the market is Interest Rate contracts and Credit Default Swaps
- Only 70% of Credit Exposure is collateralized
- Asia accounts for 9% of total outstanding contracts
Key Aspects of Collateral Management Services

The use of collateral to mitigate counterparty risk is only the beginning of effective collateral management. Strong disciplines in the following areas are crucial to ensuring the value of the collateral, initially and continuously, covers the respective credit and counterparty exposures:

- **Asset Servicing**: Safekeeping and corporate actions maintenance
- **Eligibility Testing**: Haircuts and concentration limits
- **Exposure Calculation**: Variation between initial strike price and daily spot price
- **Dispute Resolution**: Work with counterparties to solve trade discrepancies
- **Documentation**: Collateral services agreements
- **Margin Calls**: Co-ordination of request/delivery of additional collateral
- **Mark to Market**: Daily Pricing and reference data update
- **Manufactured Income**: Dividends and interest payments
- **Cash Reinvestment**: Streamline sweeps and interest accrual and distribution
- **Recalls and Substitution**: Simultaneous replacement of existing collateral with other qualified assets
- **Rehypothecation**: Reuse of collateral
HKMA AGENCY REPO PROGRAM
HKMA Agency Repo Program

**Objectives**

Deliver a scalable, robust and efficient infrastructure to local and international institutions to:

- Enhance local liquidity across currencies namely EUR, HKD, RMB and USD
- Advance the growth of the Hong Kong repo market
- Facilitate the mobilization offshore securities to be used as collateral for Hong Kong
- Promote repo trading between CMU members and International Broker / Dealers
- Broaden collateral spectrum for local Buyers to include offshore securities
- Partner with J.P. Morgan to provide experienced and professional infrastructural support
Collateral Management Services Agreement

- Constructed and governed in accordance with Hong Kong law
- Two bilateral agreements based on a single Programme Terms and Conditions
- Signatories:
  - JPMorgan Chase Bank, N.A., London Branch and Hong Kong Monetary Authority (as Agent)
  - JPMorgan Chase Bank, N.A., London Branch and Seller
- Participants only need to execute their respective agreements once to trade with other counterparties
Complete Legal Structure

Note 1: Master Agreement (GMRA) to be executed by Repo Buyer (CMU member) and Repo Seller
Note 2: Repo Agent Agreement to be executed by Repo Seller and HKMA
Note 3: Bilateral Collateral Services Agreement to be executed by HKMA and J.P. Morgan
Note 4: Bilateral Collateral Services Agreement (Seller) to be executed by Repo Seller and J.P. Morgan
Note 5: Global Custody Agreement to be executed by Repo Seller and J.P. Morgan
HKMA Repo Agency Program: Roles and Responsibilities

Repo Buyer and Repo Seller
- Repo Buyer joins HKMA repo facility (Repo Seller joins J.P. Morgan’s tri-party repo program if not already a member)
- Buyer and Seller agree on repo trade;
- Buyer and Seller send repo instructions directly to J.P. Morgan

Depository and J.P. Morgan
- J.P. Morgan matches Buyer and Seller instructions
- J.P. Morgan performs collateral eligibility testing
- J.P. Morgan values collateral and allocates to repo trade
- J.P. Morgan generates collateral reports for HKMA and Seller

J.P. Morgan
- J.P. Morgan facilitates the use securities held at ICSD/CSD
- J.P. Morgan performs:
  - Daily MTM of collateral,
  - Margin calls notification,
  - Safekeeping and asset servicing
1. Buyer and Seller negotiate terms of the repo trade

2. Buyer enters repo trade into J.P. Morgan web interface

3. Seller sends repo trade instructions and delivers securities to J.P. Morgan

4. Buyer wires cash to J.P. Morgan

5. J.P. Morgan matches repo instructions and allocates collateral; then wire cash to Seller

6. J.P. Morgan wires cash to Seller

7. Generate Collateral Repots
Collateral Allocation Process

Accommodates a wide array of Security Types

- ABS/MBS
- ADRs/GDRs
- Convertible bonds
- Corporate bonds
- Certificates of deposit
- Exchange Traded Funds (ETFs)
- Equities
- Eurobonds
- Government bonds
- Government guaranteed
- Supranational bonds
- Warrants

Allows a broad range of Eligibility Criteria

- Instrument type
- Index
- Issue rating
- Quality of underlying Issuer
- Market
- Issue
- Issuer
- Subordinated debt
- Coupon rate
- Eurobonds
- Days to maturity
- Minimum price
- Index of non-rated bonds
- Margins or Haircut
- Concentration limits (by value or % on all above criteria)
  - On issue
  - On collateral type
  - On issuer
  - By liquidity (multiple of the average daily trading volume)
  - Pre-agreed value factors (margin or haircut) are applied to the collateral value prior to concentration limits
### Key Features of J.P. Morgan Support

<table>
<thead>
<tr>
<th>Access to Local and International Securities Depositories</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Mobilize collateral holdings at ICSDs (Euroclear, etc) and CSDs (RBA, DTCC, NY FED, etc)</td>
</tr>
<tr>
<td>- Access to regional and international institutions, both buyers and sellers</td>
</tr>
<tr>
<td>- Segregation of collateral accounts</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Collateral Valuation and Margin Calls</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Independent vendors pricing, ratings and reference data</td>
</tr>
<tr>
<td>- Intraday optimization “runs” and start of day and end of day</td>
</tr>
<tr>
<td>- Expeditious margin call notification</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Automatic Substitution and Record Date Recall</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Automated collateral substitution and re-optimization</td>
</tr>
<tr>
<td>- Recall collateral over record date in advance of corporate action events</td>
</tr>
<tr>
<td>- Manage payment of the manufactured income directly to the Repo Seller</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technology &amp; Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Online collateral management monitor</td>
</tr>
<tr>
<td>- Daily holdings and valuation reports</td>
</tr>
<tr>
<td>- SWIFT and S-FTP connectivity for messaging; machine-readable data extracts</td>
</tr>
</tbody>
</table>
J.P. Morgan Collateral Management: Markets and Currencies

23 x 5 Systems Global Coverage with Operations and Client Service Model that ‘Follows the Sun’

- **New York**
  - Sales & Relationship Management
  - Client Service
  - Technology
  - Operations
  - Implementation
  - Product Management

- **London**
  - Sales & Relationship Management
  - Client Service
  - Technology
  - Operations
  - Implementation
  - Product Management

- **Bournemouth**
  - Client-facing Operations

- **Tokyo**
  - Client Service
  - Technology

- **Taipei**
  - Client Service

- **Hong Kong**
  - Sales & Relationship Management
  - Client Service
  - Implementation
  - Product Management
  - Technology

- **Manila**
  - Client-facing Operations

- **Singapore**
  - Sales & Relationship Management
  - Client Service
  - Implementation
  - Product Management
  - Technology

- **Sydney**
  - Client-facing Operations
  - Sales & Relationship Management
  - Product Management
  - Operations
  - Technology

**Markets**
- Hong Kong Dollar (HKO)
- United States Dollar (USD)
- Euro (EUR)
- British Pound (GBP)
- Australian Dollar (AUD)
- New Zealand Dollar (NZD)
- Japanese Yen (JPY)
- Canadian Dollar (CAD)
- Danish Krone (DKK)
- Swedish Krone (SEK)
- South African Rand (ZAR)
- Swiss Franc (CHF)
- Norwegian Krone (NOK)
- Turkish Lira (TRY)
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Asian Bond Market Forum
CLS Currency Program Update

9 February 2012
Lynn Mathews

www.cls-group.com
Agenda

» The global FX market – recent developments

» CLS and its role in FX risk mitigation

» Benefits of participating in CLS
  » Central Banks
  » Settlement Members
  » Managing other risks in FX
  » Third party and fund participation

» CLS strategy for Asia

» Questions
The Global FX Market – Recent Developments
Introduction

» An effective and safe FX settlement market supports efficient capital allocation which contributes to economic development

» CLS’ core mission is to mitigate settlement risk in the global FX market
  » The unique payment vs. payment settlement system connects local and global markets
  » Safe and sound FX market supports international commerce and global economic activity
  » The mitigation of settlement risk associated with FX enhances local market financial stability

» CLS Board, management and its regulators support expanding the number of currencies eligible to be settled in CLS
The Global FX market - recent developments

» Significant evolution in trading is taking place
  » 20% overall growth in global FX (Apr 2007–Apr 2010)¹ to US$4 trillion per day
  » Automated trading with increasingly sophisticated trading platforms deployed
  » Trading volumes are growing faster than values
  » Growth from retail, prime brokerage, Algo-trading and developing currencies

» Market composition is changing:
  » Trading with investment firms has grown substantially and is now larger than interbank transactions: 48% versus 39%¹
  » 65% of all FX transactions are cross-border¹
  » Continuing Asian growth and growth in intra-Asian trade shifting market demand, particularly growth in offshore clearing of RMB

¹Bank for International Settlements Triennial Central Bank — Foreign exchange and derivatives market activity in April 2010 (1 September 2010) (BIS)
Response to the financial crisis - regulatory initiatives

Structural reforms underway – particularly derivatives markets and increased capital requirements under Basel III

» Main impact for FX – mandated FX derivatives clearing and trade repository reporting

» A number of jurisdictions in Asia are at various stages in plans to establish clearing houses

» Dodd-Frank legislation in the US and proposed OTC derivatives and market infrastructures from the European Commission

» Proposed new principles for financial market infrastructures (CPSS, IOSCO) and corresponding efforts by the Financial Stability Board

» Regulatory focus on the need for “safe settlement”
Implications for CLS

» Compliance with new and expanded regulatory standards

» Continued support for a growing FX market

» Role of CLS in support of settlement of cleared FX

» Retaining leadership role in global FX market, delivering value in risk mitigation services
CLS and FX risk mitigation
FX requires cash payments

» FX is the only asset class where cash delivery occurs on both sides of the transaction

» FX trades settle through full trade value with currency payments executed in two different jurisdictions that may be in different time zones

» Failure by one party to settle its side of the transaction may result in a chain reaction of cross defaults

» With the current FX market in excess of US$4 trillion per day - total settlement risk is systemically important
FX settlement risk

- Settlement or “Herstatt” Risk named after the failure of a small German bank – Bankhaus Herstatt – in 1974 is the loss of principal arising from the failure of one counterparty to settle its side of the trade.
- **1996:** CPSS-sponsored “Allsopp” report published, identified the absolute values of settlement risk.
- **1998:** Major banks form “G20” project group. This led to the creation of CLS as a company and the CLS Bank settlement service.
- **2008:** CPSS settlement survey reported good progress by banking industry on mitigating settlement risk but indicates “more to do.”
- **March 2011:** The Basel Committee on Banking Supervision (BCBS) and the Committee on Payment and Settlement Systems (CPSS) established a joint working group to revise the supervisory guidance for managing settlement risk in FX transactions.
- CLS Bank is recognised as an important Financial Market Infrastructure and observes the Core Principles for Systemically Important Payment Systems.
» An Edge Act corporation bank based in New York chartered under section 25A of the United States Federal Reserve Act

» Regulated by the Federal Reserve Bank of New York and an Oversight Committee composed of 22 central banks whose 17 currencies are settled in CLS

» CLS has been granted unique direct access to local RTGS systems in each currency it settles. This means settlement across the Member accounts at CLS Bank are direct
How CLS works within the trade life cycle
Who is involved - the CLS Ecosystem

- **CLS**
- **Central banks**
  - 17 RTGS systems
- **Settlement Members**
  - 61 in 23 jurisdictions
- **Third parties – indirect participants**
  - Over 14,000 banks, investment firms, major corporations, funds
- **Settlement instructions received from 86 countries**

Source: CLS settlement data
Regulatory oversight

» Regulated and supervised by Federal Reserve Bank of New York
» Overseen by CLS Oversight Committee - formal arrangement established by 22 central banks whose 17 currencies are settled in CLS
Benefits of participating in CLS
In addition to settlement risk mitigation, participation in CLS delivers:

» Enhanced financial stability in local market

» Reduced intra day liquidity required to process FX flows through local RTGS system

» Local visibility of the FX market

» Higher and globally consistent standards
In addition to settlement risk mitigation, participation in CLS delivers:

» Liquidity efficiencies reduced by 96% on average through multilateral netting

» Increased trading capacity

» Operational efficiencies through full automation of post trade services

» Joining a unique market infrastructure driving collaboration on new services

» Generate revenue and strengthen relationships by providing access to the settlement service to customers (third parties)
CLS role in managing other risks in FX

Liquidity risk
  » Daily funding requirements are minimised by multilateral netting in CLS

Credit risk
  » Counterparty credit risk is covered through collateral arrangements or clearing for specified derivatives

Operational risk
  » Common global market standards have significantly improved operational performance / straight through processing
  » CLS standards take operational performance to the next level

Legal risk
  » Standard legal framework and operating rules
Settlement Members - third party service providers:
» Can offer CLS settlement to their customers as part of their clearing, settlement and correspondent banking services

Settlement Members who offer CLS services to customers:
» Face the market on behalf of the third party (accept credit risk)
» Handle all instructions and funding on behalf of third parties

Fund FX available through CLS-enabled custodians and broker banks serve:
» Investment fund managers, hedge funds, pension funds, overlay funds, third party custodians
Participation – investment managers and funds
## Benefits for funds — summary

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<thead>
<tr>
<th>Risk reduction</th>
<th>Operational efficiencies</th>
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</thead>
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<tr>
<td>Settlement risk mitigation</td>
<td>Increased straight through processing</td>
</tr>
<tr>
<td>Reduced payment risk</td>
<td>Operational certainty</td>
</tr>
<tr>
<td>Reduced operational risk</td>
<td>Best-in-class cash forecasting</td>
</tr>
<tr>
<td>Risk reduction assists trading access</td>
<td>Real time reporting on the settlement status of trades</td>
</tr>
<tr>
<td>Best execution compliance</td>
<td>Reduced use of funds</td>
</tr>
</tbody>
</table>

Fund participation in CLS has grown by over 50% over the last two years
CLS strategy and outlook
Dedication to core mission

» Enhance financial stability through reduction of FX settlement risk globally

Short to medium term strategy (one to three years)

» Focus on strengthening the operational performance and capacity of the core settlement system

» Expand the core settlement service to include more participants, new currencies and additional settlement sessions
Strategic priorities

» Regulatory considerations

» Infrastructure to deliver a robust, safe and efficient settlement service

» Strategic initiatives to support CLS’ core mission:
  » Same day settlement
  
  » Support for settlement of cleared FX
  
  » Greater participation
  
  » Expansion of currencies
Strategic initiatives

Same day settlement
» North American afternoon session for USD/CAD as first step in expanding payment versus payment settlement for same day trades

Support for settlement of cleared FX
» Cleared trades still need to be settled so settlement risk is not reintroduced

» CLS will collaborate with central counterparties and the market to address the challenges of settlement for cleared FX products once the model is defined

Greater participation
» Increase the number of Settlement Members and third parties
Strategic initiatives

Currency program

» Currency expansion is one of CLS’ strategic priorities

» Global comprehensive education and outreach program underway

» Expanding Asian focus in 2012
CLS strategy for Asia

» CLS welcomes interest in participation in CLS settlement from all jurisdictions

» CLS’ focus on Asia has increased and our Asian strategy is evolving

» CLS currency expansion is a combined public and private sector initiative, a collaboration CLS welcomes and is experienced in developing

» We are targeting more structured engagement, potentially as an Asian currency forum, in Singapore in July 2012

» We welcome proactive engagement with your colleagues and the broader Asian market to support addressing settlement risk mitigation
Questions
Valuation and Price Discovery: Role and Importance in Emerging Bond Markets

7th Meeting of the ASEAN+3 Bond Market Forum

8-9 February 2012
Hong Kong
## Agenda

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Agenda

1. Importance of Bond Valuation
2. Bond Valuation Approaches in Practice
3. Bond Valuation for Reporting Requirements
4. Efficient Price Discovery: Impact on Primary and Secondary Market
Importance of Bond Valuation

- Valuation and Price Discovery are a fundamental component of bond markets.
The Inherent Nature of Bond Markets

Illiquidity is a GIVEN

Realistically, liquidity can only be achieved up to an extent in any bond market. Only a small percentage of issues are traded, mostly in Government bonds. Liquidity decreases for: Lower credits, private placements and complex structures.

Result: Difficulty in price discovery for trading, investing, reporting and issuance.

Therefore, some kind of valuation framework is a necessity.
Importance of Bond Valuation

All bond market stakeholders need a source of valuation

- **SELL SIDE**
  - Data and valuations for financial reporting, decision making and risk management

- **BUY SIDE**
  - Valuation data for market surveillance

- **REGULATORS**
  - Price discovery for new issuers

- **ISSUERS**
  - Academia, public, media, watchdogs

- **OTHER STAKEHOLDERS**
Key benefits in emerging markets include:

| Revitalises the Secondary Market for Bonds | ✓ The existence of proper valuation may revitalize the bond market by facilitating price discovery for secondary market trading
|                                           | ✓ The availability of reliable mark-to-market prices can provide alternatives to traditional hold-to-maturity strategies. |
| Facilitates Price Discovery for Primary Market | ✓ From an origination and underwriting perspective, primary level pricing becomes challenging especially for lower credits
|                                           | ✓ Reliable valuation data on previously issued corporate bonds can promote new issues by functioning as benchmarks for primary level price discovery |
| Promotes New Product Development | ✓ Valuation transparency will spur the evolution of the bond market by encouraging the development of more advanced pricing methodologies
|                                           | ✓ When such methodologies are established, it will encourage more bond offerings (local and cross border) and more active trading of these products in the secondary market. |
| Improves the Soundness of Financial Institutions | ✓ Reliable valuations will assist in financial institutions' compliance to international accounting standards (IAS, IFRS) and BIS capital requirements.
|                                           | ✓ Effectiveness of risk management will be further enhanced as the valuation process will be consistent and not arbitrary |
Importance of Bond Valuation

- Regulated, Self-Regulatory and Independent valuation providers

**Regulated BPA**
- Indonesia - Indonesia Bond Pricing Agency
- Korea - Korea Asset Pricing (KAP), KIS Pricing, Inc, NICE Pricing Services, Inc
- Malaysia - Bond Pricing Agency Malaysia Sdn Bhd
- Mexico - Two price vendors under the purview of Banco De Mexico

**SRO Structure**
- Thailand - Thailand Bond Market Association
- Japan - Japan Securities Dealer Association

**Independent**
- Information Vendors - Bloomberg, Reuters
- Valuation specialists - IDC, Markit

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## Importance of Bond Valuation

### Different frameworks suitable for different markets

<table>
<thead>
<tr>
<th>Framework</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BPA</strong></td>
<td>✓ Advantage: Directly regulated independent valuation</td>
<td>✓ Disadvantages: Significant start up cost, requires market acceptance, adequate regulatory framework and market maturity</td>
</tr>
<tr>
<td><strong>SRO / Regulator Driven</strong></td>
<td>✓ Advantage: Market credibility as all market participants are stakeholders</td>
<td>✓ Disadvantages: Requires established SRO framework, difficulties in commercial viability, difficulty in reaching consensus view</td>
</tr>
<tr>
<td><strong>Independent Valuers/Information Vendors</strong></td>
<td>✓ Advantages: global recognition, relatively low cost</td>
<td>✓ Disadvantages: Global providers may be less specialised/focussed on emerging markets, “one size fits all”</td>
</tr>
<tr>
<td><strong>Market Quote Aggregation</strong></td>
<td>✓ Advantages: Lowest cost, good for liquid instruments</td>
<td>✓ Disadvantages: Poor coverage, low granularity, risk of moral hazard</td>
</tr>
<tr>
<td></td>
<td>Agenda</td>
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</table>
## Bond Valuation Approaches in Practice

### Current industry practice and the assumptions

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<thead>
<tr>
<th>Approach</th>
<th>Method</th>
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</thead>
<tbody>
<tr>
<td><strong>YTM Matrix / Curve Pricing</strong></td>
<td>Yield Curve Quote Aggregation: Yield curves determined by aggregation, all bonds marked to the curve</td>
</tr>
<tr>
<td><strong>Individual Quotation Approach</strong></td>
<td>Price Quote Aggregation: Bond price quotes aggregated from banks/brokers</td>
</tr>
<tr>
<td><strong>Model Approach (Mark to Model)</strong></td>
<td>Theoretical: Bond prices derived by mathematical models</td>
</tr>
<tr>
<td><strong>Hybrid Approach</strong></td>
<td>Multi dimensional: A combination of the three</td>
</tr>
</tbody>
</table>
Bond Valuation Approaches in Practice

- Current industry practice and the assumptions

**YTM Matrix / Curve Pricing**

<table>
<thead>
<tr>
<th>Quoted Bonds</th>
<th>1y</th>
<th>2y</th>
<th>3y</th>
<th>...</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>...</td>
</tr>
<tr>
<td>AA</td>
<td>3.5</td>
<td>4.5</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BBB</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Marking to market**

**Assumptions:**

1. **Market Liquidity / Efficiency**
   - Contributed quotations are assumed to be an unbiased market representation.
   - Market is liquid without seasonal effects.

2. **Homogeneity**
   - Bonds belonging to the same segment are assumed identical.
Assumptions:

1. *Market Liquidity / Efficiency*
   - Contributed quotations are assumed to be an *unbiased* market representation.
   - Selective group of contributors monitor individual bond value on an ongoing basis.
   - Individual bonds are assumed to be liquid, where the value of individual bonds are observable.
## Bond Valuation Approaches in Practice

### Comparison of quotes provided by aggregation methods

<table>
<thead>
<tr>
<th></th>
<th>Dealing / Indicative Quotes</th>
<th>Aggregated Yield Curves</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Features</strong></td>
<td>Not all bonds are quoted, governments most common</td>
<td>Granularity of yield curves may be insufficient</td>
</tr>
<tr>
<td></td>
<td>None or few quotes in bear market conditions</td>
<td>Possibility of manipulation of yield curve quotes by contributors</td>
</tr>
<tr>
<td></td>
<td>Prices may be “shaded”</td>
<td>Timeliness – may not be updated daily</td>
</tr>
<tr>
<td></td>
<td>One way prices and wide spreads are common</td>
<td>Fails to consider individual issues (homogeneity assumption)</td>
</tr>
<tr>
<td><strong>Origin of quotes</strong></td>
<td>Market making banks and interdealer brokers</td>
<td>Market making banks</td>
</tr>
<tr>
<td><strong>Timeliness</strong></td>
<td>As and when available / End of Day</td>
<td>Varies (daily up to fortnightly)</td>
</tr>
</tbody>
</table>
Bond Valuation Approaches in Practice

Current industry practice and the assumptions

- YTM Matrix / Curve Pricing
- Individual Quotation Approach
- Model Approach (Mark to Model)
- Hybrid Approach

**Assumptions:**

1. Model is always Right
   - Computerised mathematical model generates price.
   - Underlying information is accurate and timely.
   - Minimal human intervention.

[Diagram showing financial data, interest rate data, asset value, asset volatility, recover rate, risk free rate, curve rate, liquidity model, credit scoring model, term structure model, and marking to market.]
Bond Valuation Approaches in Practice

Current industry practice and the assumptions

YTM Matrix / Curve Pricing

Individual Quotation Approach

Model Approach (Mark to Model)

Hybrid Approach

Quoted Bonds

Traded Bonds

Credit risk model

Liquidity risk model

Term structure model

Pre and Post Data Pool

Calibrating Implied Risk Premium From Market Data

Marking to market

Assumptions:

1. Market Liquidity / Efficiency
   ✓ Market is not liquid, trade frequency is low. Still, trade prices (if properly monitored) can provide information for pricing.

2. Non Homogeneity
   ✓ Mathematical model does not provide market price.
   ✓ Mathematical model provides the framework to derive the risk premium/spread in the market. Selective group of contributors monitor individual bond value on an on-going basis.
Bond Valuation Approaches in Practice

Snapshot of inputs for a market relevant valuation approach

- Client feedback process
- Benchmark curves
- New issues

- Market interaction
- Financial Mathematics
- Rating updates

- Accurate post trade data
- Live pre trade quotes
- Relative pricing

- Accurate terms & conditions
- YTM matrix/curve pricing
- Credit risk analysis

VALUATION PROCESS
Market relevance of Valuations vs Trades

- The objective is to achieve an unbiased, normal distribution of evaluated prices compared to market trading.

Interim Pricing Performance: Marked to Market against trade spread on spot, Oct 2011 to Dec 2011

**Distribution MTM - Trade for Total Population from 1-Oct-11 to 31-Dec-11**

- Spread (bp) vs Probability:
  - 0-5 bp: 62.53%
  - 5-10 bp: 12.61%
  - 10-15 bp: 2.78%
  - 15-20 bp: 1.68%
  - 20-25 bp: 0.29%
  - 25-30 bp: 0.11%
  - 30-35 bp: 0.00%
  - 35-40 bp: 0.00%
  - 40-45 bp: 0.00%
  - 45-50 bp: 0.00%
  - 50-55 bp: 0.00%
  - 55-60 bp: 0.00%
  - 60-65 bp: 0.00%
  - 65-70 bp: 0.00%
  - 70-75 bp: 0.00%

- Sample Size: 1723
- Average Spread: 0 bp
- Max Spread: 40 bp
- Min Spread: -45 bp
- Std Deviation: 6.0599 bp
- Bond Accuracy ≤ 20bp: 97.92%
- Effectiveness Ratio: 26.1466

**Trade Population (excluding outliers)**

- Spread Difference (bp)

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# Agenda

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</table>
Bond Valuation for Reporting Requirements

- Compliance for long term market credibility, competitiveness and viability

- Financial Reporting
- Risk Management
- Decision Making
- Investor protection

VALUATION
Accounting standards governing valuation of fixed income instruments

IFRS13: “Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date”

The Need

To measure the fair value of financial instruments, specifically Fixed Income instruments to meet the stipulations of IFRS 13/7/139
IFRS 13 on FV measurement: The fair value hierarchy

For all the Input Levels, some kind of valuation mechanism needs to exist

**Level 1 inputs**
Unadjusted quoted prices in active markets (traded levels and binding quotes from brokers).

**Level 2 inputs**
Inputs (other than quoted prices included within Level 1) that are observable for the asset or liability, either directly or indirectly (peers pricing).

**Level 3 inputs**
Inputs for the asset or liability that are not based on observable market data (inputs used for distressed assets and ABS).

“A valuation technique would be expected to arrive at a realistic estimate of the fair value if: …it reasonably reflects how the market prices the instrument….and the inputs…represent market expectations and risk-return factors” inherent in the instrument”
## Bond Valuation for Reporting Requirements

Valuation data is a key input into many processes

<table>
<thead>
<tr>
<th>Valuation data needs</th>
<th>Risk Management</th>
<th>Decision Making</th>
<th>Investor Protection</th>
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<td>Trading limits/stop loss monitoring</td>
<td>Asset/Liability Matching</td>
<td>Standardisation of NAV reporting</td>
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<td></td>
<td>VaR/Vols calculations</td>
<td>Funding Requirements</td>
<td>Accurate reflection of fund performance</td>
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<td>Portfolio risk modelling and monitoring</td>
<td>Basel compliance</td>
<td>Published financial statements</td>
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<td>Single customer exposure</td>
<td>Management reporting</td>
<td>Regulatory Reporting</td>
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<td>Regulatory reporting</td>
<td>Regulatory reporting</td>
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<td>Creation of Indices</td>
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A valuation framework is necessary to meet these needs

**Legacy Practice**
Value financial instruments based on historical cost, amortised cost and last trade due to limited or no fair value data, therefore unable to realise the actual value of the financial instruments.

**The Solution**
Valuation data that is fit to meet financial reporting standards, portfolio valuation and risk management requirements.

- Objective
- Consistent methodology
- Relevant to actual market transactions

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</table>
Malaysia as a case study

Ever growing issuance and trading volumes demanded appropriate valuation and price discovery infrastructure

Malaysia adopted a BPA framework in 2006

Initially targeted at mutual funds, the BPA now supports a wide range of market stakeholders.
Efficient Price Discovery: Primary and Secondary Markets

- **Primary Market**: Steady growth since the Asian Crisis of 1997

- Ever growing issuances underscored the need for an efficient price discovery and valuation process, assisted by the creation of the BPA in 2006

![Graph showing primary market growth](image)
Efficient Price Discovery: Primary and Secondary Markets

- Primary Market: Multiple industry sectors requires granularity in yield curves

<table>
<thead>
<tr>
<th>Security Type</th>
<th>RM 'Bil</th>
<th>Sukuk</th>
<th>Bonds</th>
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<td>ABS</td>
<td>11</td>
<td>6</td>
<td>6</td>
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<tr>
<td>Corporate</td>
<td>40</td>
<td>129</td>
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<tr>
<td>Corp Guaranteed</td>
<td>8</td>
<td>7</td>
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<td>Financial</td>
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<td>BNM</td>
<td>75</td>
<td>32</td>
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<td>Quasi-Gov't</td>
<td>58</td>
<td>18</td>
<td>18</td>
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<tr>
<td>Gov't</td>
<td>112</td>
<td>280</td>
<td>280</td>
</tr>
</tbody>
</table>

- 58% of outstanding securities are conventional bonds
- MGS dominates outstanding Government securities
- Highest percentage of sukuk from Corporate PDS

Source: BPA Malaysia
Efficient Price Discovery: Primary and Secondary Markets

Increasingly complex structures requires robust financial engineering knowledge

<table>
<thead>
<tr>
<th>Bond Structures</th>
<th>Islamic Concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discount Bond</td>
<td>Al Bai Bithaman Ajil</td>
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<tr>
<td>Convertible Discount Bond</td>
<td>Al Qardhul Hasan</td>
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<tr>
<td>Callable Discount Bond</td>
<td>Al-Wakalah</td>
</tr>
<tr>
<td>Callable Convertible Discount Bond</td>
<td>Bai' At-Tawarruq</td>
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<tr>
<td>Bullet Bond</td>
<td>Bai Dayn</td>
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<td>Callable Bullet Bond</td>
<td>Bai-Al-Einah</td>
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<tr>
<td>Fixed Rate Bond</td>
<td>Bi Istithmar</td>
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<td>Fixed Rate ABS</td>
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<tr>
<td>Fixed Rate MBS</td>
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<tr>
<td>Bond with Warrants</td>
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<td>Convertible Bond</td>
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<td>Exchangeable Bond</td>
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<td>Callable Bond</td>
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<td>Callable MBS</td>
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<td>Callable Convertible Bond</td>
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<td>Callable Exchangeable Bond</td>
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<td>Amortising Bond</td>
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<td>Fixed Rate Amortising ABS Bond</td>
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<td>Stepping FRB</td>
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<td>Callable Stepping Bond</td>
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<td>Floating Callable Exchangeable Bond</td>
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<tr>
<td>Floating Amortising Note</td>
<td></td>
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<tr>
<td>Stepping FRN</td>
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</tr>
</tbody>
</table>

Combination

Ijarah & Musyarakah
Ijarah, Istisna’, Mudharabah, Murabahah, Musyarakah
Istisna’ & Mudharabah
Istisna’ & Murabahah
Mudharabah & Musyarakah
Murabahah & Bai Al Dayn
Mudharabah & Murabahah
Bai Dayn & Murabahah
Murabahah & Musyarakah
Bai Dayn, Murabahah
Al-Bai’, Al-Wakalah, Bai Bithaman Ajil & Ijarah
Al-Wakalah, Bi Istithmar
Efficient Price Discovery: Primary and Secondary Markets

Case study: Primary level price discovery

<table>
<thead>
<tr>
<th>2003</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coupon Rate</strong></td>
<td><strong>Coupon Rate</strong></td>
</tr>
<tr>
<td>4.25%</td>
<td>4.38%</td>
</tr>
<tr>
<td><strong>Traded Yield After 1 Month</strong></td>
<td><strong>Traded Yield After 1 Month</strong></td>
</tr>
<tr>
<td>3.90%</td>
<td>4.39%</td>
</tr>
<tr>
<td><strong>Issue Amount</strong></td>
<td><strong>Issue Amount</strong></td>
</tr>
<tr>
<td>RM 150 Mil</td>
<td>RM 100 Mil</td>
</tr>
<tr>
<td><strong>Annual Excess Coupon Payment</strong></td>
<td><strong>Annual Excess Coupon Payment</strong></td>
</tr>
<tr>
<td>RM 525,000</td>
<td>RM 10,000</td>
</tr>
<tr>
<td><strong>Total Excess Coupon Payment</strong></td>
<td><strong>Total Excess Coupon Payment</strong></td>
</tr>
<tr>
<td>RM 2,625,000</td>
<td>RM 50,000</td>
</tr>
</tbody>
</table>

Efficient price discovery managed to narrow the borrowing spread by matching the Actual Market Cost (traded yield) and the Issuer Cost (the coupon rate at the primary level)

Direct Benefit: Lower cost of funding for issuers
Efficient Price Discovery: Primary and Secondary Markets

- Secondary Market: Increased number of market participants and cross border flows requires valuations for trading reference and marked-to-market

2011 Secondary market volume RM 1.7 Trillion

Source: BPA Malaysia

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Efficient Price Discovery: Primary and Secondary Markets

The Malaysian experience in the bond valuation perspective

Observed trends:

✓ Increasing demand for reliable and market relevant valuation data at local and global level

✓ Requests for technology transfer to other developing markets to develop their own valuation infrastructure

✓ Global valuation providers and information vendors seeking out premium bond data for redistribution
Conclusion

Takeaway: Benefits of valuation infrastructure in emerging bond markets

- Revitalises the Secondary Market for Bonds
- Facilitates Price Discovery for Primary Market
- Promotes New Product Development
- Improves the Soundness of Financial Institutions

Towards an Attractive, Viable, Sustainable and Robust Bond Market
THANK YOU
Other Issues of SF1 and SF2

- Updates on the Phase 1 ABMF Report –

ADB Secretariat

7th ABMF Meeting
Hong Kong, 8-9 Feb 2012
Discussion during the Beijing meeting

- Three options were suggested for consideration
  - Option 1: By ADB secretariat
  - Option 2: By ABMF members
  - Option 3: By ad-hoc team

- Following aspects were discussed and shared
  - Close relationship with phase 2 activities
  - Updates as an official output of ABMF
  - Interest and involvement of ABMF members, regulatory authorities and policy makers is important
  - Need of utilizing various sources rather than single source
  - Combination of option 2 and option 3 might be desirable
  - Need to be practical considering resource limitation
Basic approach

- Consider combination of option 2 & option 3
- Produce updates as official output of ABMF in periodical basis: annual or semi-annual
- Close cooperation among ABMF members, ADB secretariat and ad-hoc updating team throughout the updating process
Procedure for the updating

1. Collecting Information/Data
2. Revising/Updating
3. Confirmation by ABMF member
4. Publishing (ABMF Web)
Procedure for the updating

- **(Step 1) Providing/collecting information and data**
  - ABMF members by themselves
  - ADB secretariat team
  - Utilizing existing professional network (e.g. SMPG) could be beneficial
  - Who will coordinate and collect?

- **(Step 2) Revising and updating the reports**
  - ABMF members can directly do it
  - ADB secretariat team and ad-hoc team can also do it
  - Again, who will coordinate?
Procedure for the updating

- **(Step 3) Review and confirmation by ABMF members**
  - This is necessary to make it official ABMF output
  - Need to think about who will facilitate the procedure for the consultation with ABMF members

- **(Step 4) Publication of updated reports**
  - Basically ADB ABMF website (official)
  - For convenience of users, we can think of additional sites (mirror site/linked to official site)
Ad-hoc updating team

- To efficiently update the reports
- To include multilateral networks and involvements
- Establish under ABMF on voluntary basis
- Participation (Tentative)
  - ADB secretariat team
  - SWIFT (to utilize SMPG network and other resources)
  - Other experts appropriate and available
- Provide key support for Step 1 and Step 2)
  - Facilitating information collection from various sources
  - Directly and indirectly revising and updating the reports
Updating procedure and responsibility

**Collecting Information/Data**
- Support collecting info/date
- Support revising/updating
- Facilitate ABMF member confirmation

**Revising/Updating**
- ABMF members
  - Provide inputs for Info/data
  - Provide revision/update
  - Confirm the revision/update

**Confirmation by ABMF member**

**Publishing (ABMF Web)**

**Updating Team**
(ADB Secretariat, SWIFT, & Others)
- Support collecting info/date
- Support revising/updating
- Facilitate ABMF member confirmation

**ADB Secretariat**

**Mirror system (Optional, ex: SWIFT)**
Request for Feedback

Members and experts are invited to provide their feedback on the proposed options.

Questions welcome.

Many thanks!

ADB Secretariat
Supplementary slides
: Options proposed during the Beijing Meeting
Option 1: By ADB secretariat

1. Collecting Information/Data
2. Revising/Updating
3. Consultation with ABMF member
4. Publishing (ABMF Web)

Inputs from ABMF member & others

Review by respective member

ADB Secretariat team
Option 2: By ABMF members

1. Collecting Information/Data
   - Inputs from ADB Secretariat, ABMF members, & others

2. Revising/ Updating
   - Respective ABMF member

3. Review and Confirm
   - ADB Secretariat team

4. Publishing (ABMF Web)
Option 3: By ad-hoc team

Collecting Information/Data

Revising/Updating

Consultation with ABMF member

Publishing (ABMF Web)

Inputs from ADB Secretariat, ABMF members, & Others

Market Practice Updating Team (MPUT)
* Voluntary basis
* SWIFT and others

Publishing in mirror system (Optional, ex: SWIFT)

Review by respective member
WORK PLAN FOR PHASE 2

ADB Secretariat team

7th ABMF Meeting
Hong Kong, China, 8-9 Feb 2012

* Contents of the presentation could be changed subject to the members’ discussion during the meeting
Finalizing phase 1 & Starting phase 2

- 6 ABMF meetings during Sep 2010 ~ Dec 2011
- Publication of the report: By the end of Mar 2012
  - Final confirmation by members: by 24 Feb 2012 with minimum one week of review time for each market guides
  - Internal procedure of ADB: during Mar 2012
- Starting phase 2: 7th meeting in Hong Kong
  - Clarified SF1 and SF2 activities/focus/output of phase 2
  - Finalized phase 2 membership
Agreed activities for Phase 2

- Target: professional markets or exempted markets which waives full-disclosure requirement (QIB market)
- Output: Regionally standardized bond issuance program: Asian Multi-Currency Bond Issuance Program (AMBIP)
- Approach: Mutual recognition among participating jurisdictions
  - Multi-lateral regional initiative based on bilateral networking
Agreed activities for Phase 2

Areas of discussion(1): *mainly related to laws and regulations and SRO rules*

- Recognize professional investor / sophisticated investor / accredited investor / QIB etc.
- mutually recognize exempted market conditions including private placement
- standardize disclosure level of information / disclosure rules
- Investor protection
- participants code of conduct
- type of securities suitable
Agreed activities for Phase 2

<SF1>

- Areas of discussion(2) : mainly related to market practices and function of each domestic SRO
  - standardize the related documentation in offering circulars, etc.
  - standardize new issue underwriting procedures
  - standardize the rules and practice for secondary market making
  - synchronize the concept of eligible issuers

- For efficient discussion,
  - Invite regulatory bodies and policy makers to SF1
  - Form working group on AMBIP on voluntary basis to provide inputs on areas of discussion to SF1 and to discuss other issues.
Agreed activities for Phase 2

- Continue **identification of transaction flows, messaging and market practices**.
  - DVP flows and procedure for corporate bonds
  - Interest payment and redemption of government bonds
  - Interest payment and redemption of corporate bonds
- **ISO 20022 Fit-and-gap analysis**
- **Propose a roadmap and policy recommendations** to standardize and harmonize transaction flows
- **Information sharing**: LEI, data collection, ...
Schedule for 2012

- Mid-Feb ~ Early-Apr 2012: **Off-meeting activities for phase 2** and preparation of 8th ABMF meeting
  - Consultation with regulatory bodies and policy makers on joining ABMF meetings (ADB secretariat team)
  - Working group on AMBIP (KOFIA and others)
  - Preparing **Survey questions for phase 2** (ADB secretariat team)
    - (SF1) a survey to identify differences in bond issuance program.
    - (SF2) a survey to identify transaction procedures for bond issuance and corporate actions (interest payment and redemption)
Schedule for 2012

- 2 Mar 2012: **ABMI TF3 meeting** (Siem Reap, KH)
  - First reporting of phase 2 progress and plan

- 28-29 Mar 2012: **AFDM+3** (Phnom Penh, KH)
  - Progress reporting on ABMI (ABMF)

- Apr 2012: **Public conference to disseminate phase 1 reports and phase 2 plan (optional)**
  - Date/Venue/Format: TBC
Schedule for 2012

- 17~18 Apr 2012 : 8th ABMF meeting, Manila, PH
  - Clarifying remaining phase 2 issues & plans
  - Discuss and approve SF1 and SF2 survey questions for phase 2
  - Joint conference with ACRAA on credit rating in the region

- 2-3 May 2012 : AFDM+3 and AFMM+3 (Manila, PH)
  - Progress reporting on ABMI (ABMF)
Schedule for 2012

- 3 May 2012: ABMI 10th anniversary seminar (Manila, PH)

- May ~ Jun 2012: Conducting the surveys

- Jul ~ Aug 2012: Country visits
  - Consider proposals to be included in the first draft
  - For SF1, drafting a proposal for a common issuance program
  - For SF2, proposal on messaging standard harmonization
Schedule for 2012

- **Sep 2012**: 9th ABMF meeting
  - Discussion on the proposals
  - Additional survey, if necessary

- **Oct 2012**: 2nd reporting to ABMI TF3

- **Nov 2012**: AFDM+3

- **Dec 2012**: 10th ABMF meeting
  - Preparing and discussing the draft report
Schedule for 2013

- Feb 2013: 11th ABMF meeting
  - Approving the draft report to ABMI TF3

- Mar 2013: 3rd reporting to ABMI TF3

- Apr 2013: 12th ABMF meeting
  - Finalizing the report to AFDM+3

- Apr 2013: Submitting the report to AFDM+3

- May 2013: Recommendations approved by AFMM+3
Schedule for 2013

- Jun or Jul 2013: 13th ABMF meeting
  - Discussion on pilot issues
  - Publication of the report

- 4Q 2013: 14th ABMF meeting
  - Work plan for phase 3
Thank you
Comments are welcome

ADB Secretariat Team