<table>
<thead>
<tr>
<th>DATE &amp; TIME</th>
<th>PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>17 Mar 2014</td>
<td><strong>Welcome Dinner</strong> <em>(Hosted by Asian Development Bank)</em></td>
</tr>
<tr>
<td></td>
<td><em>(Venue: 2nd Floor, Executive Dining Room, ADB HQ)</em></td>
</tr>
<tr>
<td>18 Mar 2014</td>
<td><strong>Registration</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Welcoming Remarks</strong> <em>(by Treasurer Rosalia V. de Leon, Bureau of Treasury)</em></td>
</tr>
<tr>
<td></td>
<td><em>(Philippines)</em></td>
</tr>
<tr>
<td></td>
<td><strong>Key Note Speech</strong> <em>(by VPKM Bindu Lohani, Asian Development Bank)</em></td>
</tr>
<tr>
<td></td>
<td><strong>Phase 2 Report Launch</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Opening Remarks</strong> <em>(by Mr. Koji Ito, SF1 Chair)</em></td>
</tr>
<tr>
<td></td>
<td><strong>Session 1: SF1 Presentation &amp; Discussion</strong> <em>(1)</em></td>
</tr>
<tr>
<td></td>
<td><em>(ADB Secretariat, Prof. Shigehito Inukai, Mr. Matthias Schmidt)</em></td>
</tr>
<tr>
<td></td>
<td>1. SF1 Phase 2 Report Complete</td>
</tr>
<tr>
<td></td>
<td>2. Phase 3 Work Plan</td>
</tr>
<tr>
<td></td>
<td><em>(1) Phase 3 Work Approach</em></td>
</tr>
<tr>
<td></td>
<td><em>(2) AMBIF Implementation Guideline</em></td>
</tr>
<tr>
<td></td>
<td><em>(Include: Progress on AMBIF Documentation Board discussion)</em></td>
</tr>
<tr>
<td></td>
<td><em>(3) Plan for Pilot Issues</em></td>
</tr>
<tr>
<td></td>
<td><em>(4) Selected Engagement / Market Visits</em></td>
</tr>
<tr>
<td></td>
<td><em>(5) Update of Bond Market Guides (as a task)</em></td>
</tr>
<tr>
<td></td>
<td>3. Progress in Small Working Group discussion <em>(Mr. Kobayashi, JMOF)</em></td>
</tr>
<tr>
<td></td>
<td>4. Update on Bond Market Guides 2014 <em>(with comments from Mr. Alex Kech, SWIFT)</em></td>
</tr>
<tr>
<td></td>
<td><em>(1) Progress update / feedback received</em></td>
</tr>
<tr>
<td></td>
<td><em>(2) Preliminary draft for Cambodia and Myanmar</em></td>
</tr>
<tr>
<td></td>
<td><em>(3) Possible way forward and timeline</em></td>
</tr>
<tr>
<td></td>
<td>5. Q&amp;A</td>
</tr>
<tr>
<td>11:00–11:20</td>
<td><strong>Coffee break</strong></td>
</tr>
<tr>
<td>11:20–12:45</td>
<td><strong>Session 2: SF1 - Discussion on Work Plan for Phase 3</strong> <em>(continued)</em></td>
</tr>
<tr>
<td></td>
<td><em>(Q&amp;A)</em></td>
</tr>
<tr>
<td>12:45–12:55</td>
<td><strong>Wrap up of SF1 discussion</strong> <em>(by ADB Secretariat)</em></td>
</tr>
<tr>
<td>DATE&amp;TIME</td>
<td>PROGRAM</td>
</tr>
<tr>
<td>------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>12:55 – 13:00</td>
<td><strong>Closing Remarks</strong> by Mr. Koji Ito, SF1 Chair</td>
</tr>
</tbody>
</table>
| 13:00 – 14:30 | **Lunch**  
(Venue: 2nd Floor, Executive Dining Room, ADB HQ)  
- Change seating arrangement |
|            | **SF2**                                      |
| 14:30 – 14:35 | **Opening Remarks** by Mr. Jong Hyung Lee, SF2 Chair |
| 14:35 – 16:00 | **Session 3: SF2 Presentation & Discussion (1)**  
1. Phase 3 Work Plan (ADB secretariat, Dr. Taiji Inui)  
   1) DVP reference model  
   2) ISIN and ISO20022 implementation  
   3) Standardization Roadmap  
   4) Study on cross-border collateral & repo  
      - Presentation (Issues and challenges for development of cross-border collateral & repo in Asia (Eric Chng, Bank of New York Mellon)  
      - Presentation (Experiences in developing Repo market (Mr. Kuei-Hua Wu, ADB Sec; Ms. Dong-Shin Sohn, KSD; Mr. Ryuichi Shiina, JASDA)  
      - Cross-border use of financial collateral: introduction to a questionnaire (Mr. Erwin Nierop, ADB) |
| 16:00 – 16:20 | **Coffee break**                             |
| 16:20 – 18:00 | **Session 4: SF2 Presentation & Discussion (2)**  
(continue)  
- Q&A |
| 18:00 – 18:25 | **Wrap up of SF2 discussion and others** by ADB Secretariat  
- Upcoming events (meetings, study visits, etc) |
| 18:25 – 18:30 | **Closing Remarks** by Mr. Jong Hyung Lee, SF2 Chair |
| 19:00        | **Farewell Dinner**  
(Hosted by The Bureau of Treasury and the PDS Group)  
(Venue: Nostalg Ballroom, 5th Floor, Oakwood Premiere, Joy Nostalg Center Manila, 17 ADB Avenue, Ortigas Avenue, Pasig City) |
ABMF Phase 3
Sub-Forum 1
Work Plan and Update

Prof. Shigehito Inukai
with Matthias Schmidt
ADB Consultants
15th ABMF Meeting, Manila, 18 March 2014

SF1 Agenda
① SF1 Phase 2 Report Complete
② SF1 Phase 3 Work Plan
③ Progress on Bond Market Guides Update
④ Questions & Answers
SF1 Phase 2 Report Complete

SF1 Phase 2 Report
• 86 Pages
• PDF Format
• Easy to distribute via email (1.19 MB)
SF1 Phase 2 Report Complete

- Many thanks to all contributors, National Members and International Experts alike, for
  - Reviewing the overall Report
  - Giving feedback, direction and ideas
  - Detailed corrections and adjustments for their markets

- Thanks also to ADB Secretariat, in particular
  - Jason, for the excellent direction and guidance
  - Kelly, for the very efficient handling of the editing/layout process

- Finally, thanks to the editing and layout colleagues, for
  - A very smooth and painless exercise
  - Very quick turnarounds on corrections and last minute changes

SF1 Phase 2 Report Dissemination

Since no official ADB publication, to achieve industry wide dissemination:

- Immediately after this Manila meeting
  - Circulation to ABMF and ABMI members
  - Emails to contacts of members, ADB Secretariat
    - Colleagues and friends
    - Associates, market contacts
    - Clients

- Mirror sites, with very kind support from
  - NTT Data
  - Waseda University
  - Others

- Others measures may be as discussed in Manila
SF1 Phase 3 Work Plan

I. Phase 3 Work Approach
II. AMBIF Implementation Guideline
III. Plan for Pilot Issues
IV. Selected Engagement / Market Visits
V. Update of Bond Market Guides
I. Phase 3 Work Approach

➢ From SF1 Phase 2 Report

“AMBIF is a regional initiative under ASEAN+3. Hence, a multilateral, rather than a bilateral, agreement among participating economies would be preferred for its implementation. **However, as a practical step toward a multilateral agreement, multiple bilateral agreements with a regional perspective should also be considered.**”

“SF1 recommends that anAMBIF definition should not prevent the setting of bilateral concessions among participating markets.”
I. Phase 3 Work Approach (2)

- Focus on Pragmatic Approach/Practical Orientation
  - Small Group (of regulatory and policy authorities), and
  - Focus on bilateral discussions among members as an initial step to facilitate AMBIF implementation, since this process may be most familiar to members, and
  - Multilateral updates and discussions among all ABMF members, at ABMF Meetings and in form of anticipated deliverables/output
  - At the same time, seek private sector input

I. Phase 3 Work Approach (3)

- Key Objectives for this Work Approach
  - Hoping to achieve regulatory comfort
  - Address gaps in understanding among members
  - Allow members to progress at different speeds, while deriving benefits from any progress for all members
  - Finding the key (sales) arguments for AMBIF (for each stakeholder group), hence
  - Create beneficial environment for AMBIF launch
I. Phase 3 Work Approach (4)

➤ Anticipated Output
  • Multiple output over 1.5 years
    • AMBIF Implementation Guideline
    • Regulatory Process Mapping
    • Comparative Analysis of AMBIF Documentation vs. Markets
    • Revised AMBIF Concept based on experiences (as necessary)
  • Can consider to keep and treat separately, or combine into consolidated Phase 3 Report
  • Plus, Bond Market Guides

➤ Anticipated Deliverable(s)
  • Pilot issue

II. AMBIF Implementation Guideline
II. AMBIF Implementation Guideline (1)

**Purpose**: Support for regulators, stakeholders on defining AMBIF Bond, AMBIF Market and their characteristics

**Task**: Prepare *AMBIF Implementation Guideline*, with the proposed contents to

1. Illustrate characteristics of AMBIF Bond (at Inception)
2. Illustrate characteristics and purpose of the AMBIF market and AMBIF bond (for general purposes)
3. Illustrate AMBIF implementation steps, e.g.
   ① Needs analysis of issuers and investors in “book-building approach”
   ② Identify possible AMBIF market(s) (Issuing / Selling) for the pilot issue(s)
   ③ Selection of a programme -> leading to Product Sheet(s)

---

**Example: Characteristics of AMBIF Bond (at Inception)**

- In principle, bond is denominated in the *currency* of a country/economy in the region.
- The *issuing place* where the bonds are launched and priced is in one of the AMBIF eligible domestic markets (professional markets) in countries or economies in the region.
- *Money and securities are settled* in the region and bonds are settled by a domestic securities settlement system in the region.
- *Governing law* is one or more laws of countries and economies in the region.
- "*AMBIF Disclosure Items on Information Memorandum and Programme information*" recommended by ADRB are used.
- *Issuers* are regional corporates or institutional issuers (including regional subsidiary/ies of the parent company located in other countries in the region).
- *An underwriter* shall be a domestic underwriter approved by one of the regulatory authorities by whom the underwriter is licensed in the countries or economies in the region. No offering shall be made to non-AMBIF investors (non-professional investors) in compliance with selling restriction.

Note: Going forward, the aim would be for participating countries or economies to liberalise intra-regional (multi-lateral) sales restrictions for professional investors, wishing to access bond issuance in the respective participating AMBIF markets outside their own domiciles in ASEAN+3.)
II.3.③ Selection of a Programme

SF1 is presently researching whether the ‘packaging’ of AMBIF Bond characteristics – e.g. in the form of potentially differentiated ‘Schemes’ - may be necessary/desirable to be more attractive or beneficial to issuers and/or investors, other stakeholders.

This also takes into consideration whether a distinction should be made between issuers experienced in regional or international markets and new issuers, across characteristics such as currency, disclosure items and governing law. Dialogue with National and International Experts continues.

Example

| Scheme 1 | Local Bond Issuance Programme (in issuer’s domicile market, whether in single currency or multiple currencies), where bonds issued under the programme could also be issued or offered to other ASEAN+3 investors |
| Scheme 2 | Asian Currency Bond Issuance Programme (in currency / market outside of issuer’s domicile, e.g. JPY Samurai Tokyo Pro-Bond programme) |

II.3.③ AMBIF Schemes - Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Proposed Content/Specification or Details</th>
<th>Scheme 1</th>
<th>Scheme 2</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title/Serial No</td>
<td>AMBIF Bond Issuance Programme</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issuing Authority</td>
<td>National/regional/local bond market (e.g. treasury, BNM, HKMA, etc.)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>Active</td>
<td>Active</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scheme 1: Local Bond Issuance Programme</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Characteristics</td>
<td>Proposed Content/Specification or Details</td>
<td>Scheme 1</td>
<td>Scheme 2</td>
<td>Remarks</td>
</tr>
<tr>
<td>Eligible Issuers</td>
<td>ASEAN+3 issuers (corporates/institutions)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualification</td>
<td>Experienced issuer (with existing documentation), new issuer, etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currencies</td>
<td>All within ASEAN+3, or list local currencies, and state if foreign currency permitted</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of Instrument</td>
<td>CP, MTN, discrete syndicated bond issuance, etc.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount</td>
<td>Any amount</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place of Issuance</td>
<td>Any market or state specific home / host market(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of Issuance</td>
<td>Any time</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Targetted Investors</td>
<td>All AMBIF investors defined by each regulator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selling Restrictions</td>
<td>As applicable (always non-AMBIF investors)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FX Limitation</td>
<td>Yes (and state conditions, if so; e.g. requirement by TH SEC) or No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Securities Settlement in ASEAN+3 markets</td>
<td>Requires domestic legal entity of presence by issuer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selling Restrictions</td>
<td>As applicable (always non-AMBIF investors)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underwriting</td>
<td>Regional and domestic financial institutions in ASEAN+3; state limitations for domestic entities only, if so applicable</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Scheme 2: Asian Currency Bond Issuance Programme.

Whether or not deliverable currency can be documented in the AMBIF Bond Programme is dependent on if each member country / economy allows such deliverable currency denominated bonds to be issued and traded in the domestic market or not.

Programme Name

Scheme 1: Local Bond Issuance Programme

Scheme 2: Asian Currency Bond Issuance Programme

Notes: "Programme Name" and "USD" in the above table are illustrative and should be replaced with actual names.
II.3. Leading to Product Sheet(s)

**Purpose:** Create a tool to promote AMBIF and its features, but familiar to industry participants

**Task:** Find adequate description of AMBIF characteristics in a format and terms familiar to market participants, such as issuers, investors and their service providers – idea to create a Product Sheet(s):

- Contains currency(ies), (number of) markets, issuance type and frequency, governing law, etc.
- Would state qualifications and limitations (as applicable)

II. AMBIF Implementation Guideline (2)

**Purpose:** Seek comprehensive description as well as streamlining and expediting of the existing regulatory processes

**Task:** Conduct Regulatory Process Mapping to develop and describe issuance process for AMBIF bonds across markets

1. Illustrate regulatory process other than “AMBIF Disclosure Items on Information Memorandum and Programme Information” for all markets

- Please see examples on following slides
Example 1: Thailand Regulatory Process

- There are 3 major government authorities that have important roles in formulating policies and regulating Thailand’s bond markets:
  - Ministry of Finance (MOF)
  - Bank of Thailand (BOT), and
  - Securities Exchange Commission (SEC)

- Eligible Foreign Issuers:
  - International financial institutions incorporated under treaties
  - Foreign governments, or foreign government institutions incorporated under specific laws
  - Juristic persons incorporated under foreign laws

1. Approval by PDMO of MOF

   - Foreign issuer must submit an application letter to the PDMO* with the contents such as the following:
     - the purpose of the issue
     - where the proceeds will be used
     - features of bond

   “Submit application within March, July and November of each year”
   - Applicant must provide sufficient evidence to show it has the legal capacity to issue securities under its governing laws.
   - PDMO may request additional documents from the foreign issuers during its consideration process.
   - Ministry of Finance (MOF) has allowed certain types of foreign institutions to issue Baht-denominated bonds in Thailand since 2005.
   - Eligible applicants for Baht-denominated bond include international financial institutions, foreign governments, financial institutions of foreign governments and multinational foreign entities.
   - Submitting the application for issuing Baht-denominated bond to the MOF.
   - The consideration for approval of the issuance is arranged 3 times a year which are in March, July, and November.
   - Issuers must complete the offering of bonds within six months after permission granted by the MOF.
Example 1: Thailand Regulatory Process

2. Disclosure Filing, Approval & Report of securities selling by/to SEC
   - Issuer must submit registration statement* to the SEC for a review.
     * Registration statement form is Form 69-S (A free form requires to contain the minimum details)
   - Reviewing areas of registration statement are prescribed in Section 69 & 70 of the Securities and Exchange Act B.E. 2535.

Bonds issued by government/state agencies/state owned enterprises do not require SEC approval but corporate issuers have to comply with SEC regulation.

   - Trade transactions in secondary market have to be reported to ThaiBMA.

4. Other – In cases of issuances of (Foreign) Financial Institutions - to Bank of Thailand (BOT)
Example 2: Malaysia Regulatory Process

- Since 2004 a regulatory framework has existed for foreign entities to raise funds in the Ringgit debt capital market.
- There are 3 major authorities that have roles in formulating policies and regulating Malaysia's bond / Sukuk markets:
  - Bank Negara Malaysia (BNM), Securities Commission Malaysia (SCM) and Ministry of Finance (MOF)

1. Bank Negara Malaysia
   
   - Approves foreign issuers for issuance in Malaysia
   - Liberal Foreign Exchange Administration (FEA) Rules:
     - Proceeds from the issuance of bonds/sukuk are allowed to be used onshore or offshore.
     - Ringgit-denominated bond/sukuk proceeds to be used offshore have to be converted into foreign currency with licensed onshore banks.
   - Regulates involvement of financial institutions in bond market
   - Owns and operates FAST and RENTAS Systems
Example 2: Malaysia Regulatory Process

2. Disclosure Filing, Approval & Report of securities selling by / to Securities Commission Malaysia

- Single approving authority for cooperate bond issuance (in case of foreign issuer, once advisor has obtained approval from BNM)
- Regulates primary and secondary bond market activities
- Supervises market intermediaries such as rating agencies, bond pricing agencies and trustees

3. Involvement of MOF

- Approval for bond issues by multilateral issuers (e.g. development banks) as a matter of course, particularly where Malaysia is a member or signatory to organisation

- Considers and grants tax incentives or exemptions:
  - stamp duty exemption for primary and secondary market transactions,
  - withholding tax for non-residents,
  - real property gains tax for asset-backed securities, etc.
II. AMBIF Implementation Guideline (3)

Tasks:

- Seek streamlining and expediting of the existing process(es) (which could lead to possible changes in regulatory guidelines)
- Seek possible adjustments to rules and regulations, as may be necessary to facilitate (smoother) AMBIF issuance, in particular
  - Selling restrictions for non-domestic investors
  - Incentive measures, as may be deemed appropriate

II. AMBIF Implementation Guideline (4)

Purpose: Define differences between AMBIF disclosure items/documentation and existing documentation in markets

Task: Compare ADRB recommendation for AMBIF disclosure items against existing documentation used across markets

1. Create comparative analysis between all ASEAN+3 Markets, for easy reference and clear illustration of documentation
2. Confirm similarities

- Please see example on following slide
Comparative Analysis of Documentation

Comparison of General Equivalent Disclosure Items in 4 AMBIF Markets

In case of the existence of items equivalent to the items in AMBIF Disclosure Documentation:

- TSE ThaiSEC
- ThaiBMA
- Malaysia SEC
- HKEx

AMBIF Disclosure Documentation (ADRB as at End of Dec 2013)

TPBM (TOKTO PRO-Bond Market)

Private placement - AI (Accredited Investor) Regime

PDS (Private Debt Securities)

Market Only for Professional Investors

Initial Recommendation for Core AMBIF Disclosure Items on Information Memorandum and Program Information

PP-AI Regime

Registration

PDS

Registration

Program Listing Information

Type of Information: Program Information

- Date of Announcement (DD/MM/YY):
- Issuer Name:
- Name and Title of Representative / CEO / CFO:
- Address of Head Office:
- Telephone:
- Contact Person in the listing / registration / filing place:
- Type of Securities:
- Scheduled Issuance Period (*2):
- Maximum Outstanding Issuance Amount (*3):
- Listing / Registration / Filing Place(s):
- Address of Website for Announcement:
- Governing law(s):
- Others:
- Notes to Investors:

II. AMBIF Implementation Guideline (5)

Task:

- Work in close collaboration with ‘Small Group’ (of interested countries participating at inception) to achieve purpose and set-out tasks
III. Plan for Pilot Issues

**Purpose:** need to identify target market(s), type(s) of bonds, timing, required process(es)

**Tasks** include

1. Identify possible issuer(s) and AMBIF market(s) for the pilot issue
2. Identify most suitable bond (instrument)
3. Identify investor universe and how to disseminate AMBIF information and benefits

And

4. **Identify issues and points for improvement** from the pilot issue(s) for (subsequent) issuances
### III.① Sample of Funding Needs for Issuers (Business Corps)

<table>
<thead>
<tr>
<th>Ranking (Tentative)</th>
<th>Funding needs for Denominated Currency</th>
<th>Existence of Professional Bond Market in the region</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>IDR</td>
<td>No – for the moment</td>
</tr>
<tr>
<td>2.</td>
<td>THB</td>
<td>Yes (PP-AI regime)</td>
</tr>
<tr>
<td>3.</td>
<td>CNY</td>
<td>Yes (HK Dim Sum Bond) (HKEx Debt Listing Market Only for Professional Investors)</td>
</tr>
<tr>
<td>4.</td>
<td>MYR</td>
<td>Yes (PDS: Private Debt Securities Market)</td>
</tr>
</tbody>
</table>

### III.② Identify possible AMBIF market for Pilot Issue(s)

<table>
<thead>
<tr>
<th>Issuing Place / Issuing Market</th>
<th>Issuer Candidates</th>
<th>Sales/ Investors</th>
<th>Listing/ Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Thailand (PP-AI regime market)</td>
<td>1. Thai Corporate</td>
<td>1. Thai Professional inv.(PP-AI)</td>
<td>1. TSE-TPBM /ThaiBMA</td>
</tr>
<tr>
<td></td>
<td>2. Thai subsidiary of parent company in the region</td>
<td>2. Japan Professional inv.(Specified Inv.)</td>
<td>2. HKEx /ThaiBMA</td>
</tr>
<tr>
<td></td>
<td>4. Non-Thai regional Govt. Institution</td>
<td>4. Other jurisdictions in the region</td>
<td></td>
</tr>
</tbody>
</table>
III.② Identify possible AMBIF market for Pilot Issue(s)

<table>
<thead>
<tr>
<th>Issuing Place / Issuing Market</th>
<th>Issuer Candidates</th>
<th>Sales/ Investors</th>
<th>Listing/ Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Malaysia (PDS market)</td>
<td>1. Malaysian Corporate</td>
<td>1. MY Professional inv.(PDS)</td>
<td>1. TSE-TPBM/SCMY (FAST)</td>
</tr>
<tr>
<td></td>
<td>2. Malaysian subsidiary of parent company in the region</td>
<td>2. Japan Professional inv.(Specified Inv.)</td>
<td>2. HKEx/SCMY (FAST)</td>
</tr>
<tr>
<td></td>
<td>3. Non-MY regional Corporate</td>
<td>3. Thai Professional inv. (PP-AI)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Non-MY regional Govt. Institution</td>
<td>4. Other jurisdictions in the region</td>
<td></td>
</tr>
</tbody>
</table>

IV. Selected Engagement / Market Visits
IV. Selected Engagement / Market Visits

**Purpose:** focused approach, instead of compiling another questionnaire, to avoid response fatigue among members

Term signifies engagement with stakeholders on a selected basis:

- In case of enquiries from members
- Or need for questions, clarifications from SF1
- For detailed review of specific tropics
- Includes ‘regulatory engagement’ mentioned

- But full reporting/updates at every AMBF Meeting

---

IV. Selected Engagement / Market Visits

**Purpose:** Market visits anticipated to

- Support regulatory engagement
- Review, discuss, facilitate AMBIF pilot issues
- To facilitate Bond Market Guide 2015 updates

- Market visits would aim to include BCLMV Knowledge Support efforts wherever such opportunities present themselves
V. Update of Bond Market Guides

Update of Bond Market Guides

15th ABMF Meeting
18 March 2014

16th ABMF Meeting
July/Aug 2014

18th ABMF Meeting
March 2015

19th ABMF Meeting
June 2013

2014 Update
Progress report
Reminder to Members
and discussion

Collect material
Get Member consent for publication

2015 Update
Progress report
Reminder to Members
and discussion

Get Member consent for publication
Update of Bond Market Guides

**Expectation** (from both members and interested parties): annual update to maintain data, stay current on developments

- Two rounds during Phase 3
  - Current update, to be published by end Q2
  - Planned update, to be published by end of Phase 3
- Should include Brunei, latest by 2015
- Data, information collection in a mix of market visits and member submissions
- Considering specific focus points for 2015 Update
  - E.g. event of default, credit rating, secondary markets

3 Progress on Bond Market Guides Update
Progress on Bond Market Guides Update

Quick Status of the current 11 guides

- China – significant set of updates received, coordinated by NAFMII
- Hong Kong – detailed revised BMG received from HKMA
- Indonesia – under review, coordinated by KSEI
- Japan – review by Volunteer members of ABMF-J in progress
- Korea – review by Volunteer members of ABMF-K in progress
- Lao PDR – under review, coordinated by MOF
- Malaysia – BPAM update received, review in progress
- Philippines – under review by Philippines market group
- Singapore – SGX update received, plus review by SMPG in progress
- Thailand – under review by PDMO, SEC, SET and ThaiBMA
- Viet Nam – under review, coordinated by HNX

Many submissions received in a pragmatic manner

- Revised, adjusted, commented original Word or PDF documents
- Excerpts from original BMGs corrected or augmented
- New material provided as separate file or document

Multiple submissions from some markets

- Allows for cross-referencing, different perspectives
- Beneficial where technical input required
Bond Market Guides Update 2014

- For member consideration, one possible approach could be to achieve active collaboration between members, SWIFT and ADB Secretariat
  - Topical or specific updates to be submitted via template
    - Small changes in, e.g., law titles, numbers, specific features
    - Statistics
  - Substantial updates in the form of (separate) documents
    - For example, China BMG expected to require significant update due to many changes in past 2 years
    - New BMGs, e.g., for Cambodia and Myanmar
- Alternative: send all updates to ADB Secretariat
- We also have to include relevant SF2 material/content

Bond Market Guide: Cambodia

**Kingdom of Cambodia**

**Bond Market Guide (2014)**

First Draft compiled by ADB Consultants, on basis of market visit discussions, findings

Feedback by International Experts on new markets applied

To be handed over to Cambodia National Members soon after 15th ABMF Meeting in Manila

Review, edit and layout upon revisions and clarifications
Bond Market Guide: Myanmar

Republic of the Union of Myanmar

Bond Market Guide (2014)

DRAFT – v5 – with IE feedback incorporated (as of 03 March 2014)
Produced by Shigehito Imahai and Matthias Schmidt, with material from Taiji Inui

- Draft compiled by ADB Consultants, on basis of market visit discussions, findings
- Reviewed, feedback given by International Experts
- Handed over to Myanmar National Members at the beginning of March 2014
- Review, edit and layout upon revisions and clarifications

Questions & Answers
Appendix: AMBIF Bond Characteristics (Definition and Purpose of the AMBIF Market and AMBIF Bond)
## Definition and Purpose of the AMBIF Market and AMBIF Bond

<table>
<thead>
<tr>
<th>Purpose</th>
<th>By promoting the bond trading within ASEAN+3 region, help retain and circulate the regional savings within the region. And, by doing this, to contribute to the enhancement of growth and stability of the regional economies.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denominated currency</td>
<td>The first principle is to use the local currencies of the ASEAN+3 countries/economies as a denominated currency of the bond. Alternatively, if participants so agree, to use a deliverable currency outside the region.</td>
</tr>
<tr>
<td>Issuing Place / Issuing Market</td>
<td>Domestic professional bond markets of countries and economies in ASEAN+3 region are specified as the primary (issuing) and secondary (distribution) markets. These are markets that have a clear distinction against the traditional off-shore market. In other words, &quot;Intra-Regional Professional Bond Markets&quot; will be aimed at.</td>
</tr>
<tr>
<td>Governing law</td>
<td>Laws of ASEAN+3 countries and economies. Detailed discussion on the use of English law is recommended (In the framework of AMBIF Bond Programme and AMBIF Bond, English law as a governing law and the involvement of UK lawyers have not been assumed).</td>
</tr>
<tr>
<td>Targeted Investors</td>
<td>With considering the objective of helping to retain and circulate the regional savings within the regional economies, uniquely, target should be professional investors with domicile in these countries/economies in the region. (Unlike non-professional investors such as retail investors, professional investors, which are to certain extent exempt from strict investor protection requirements and other laws/regulations, such as on disclosure and other areas.) It should be noted that, in the countries/economies in the region, if it is assumed that wealthy individual investors (HNW) to be included in the professional investors category those are exempt from strict investor protection requirements and regulations of the above, it is not necessary to eliminate such a policy in each jurisdiction.</td>
</tr>
<tr>
<td>Issuers</td>
<td>It is recommended that the issuers are regional corporate or institutions. (Including regional subsidiary of the parent company in other region.)</td>
</tr>
<tr>
<td>Proceeds</td>
<td>It is not encouraged to utilise the proceeds from AMBIF bonds issuances outside the region. (Strict prohibition might be difficult, but principally, the underlying purpose should be understood by stakeholders.) For instance, the description of the use of proceeds in the offering memorandum could be possible, and, hence, be binding for the issuer. &quot;Proceeds may mainly be used for capital expenditure or working capital or general corporate purpose in its ASEAN+3 region operations.&quot;</td>
</tr>
<tr>
<td>Securities Settlement</td>
<td>Issuance and distribution of AMBIF bonds are carried out in professional bond markets in the countries / economies of ASEAN+3. For this reason, only bonds to be settled in the region are called AMBIF bonds. Regional professional investors to invest in AMBIF bonds, aim to do DVP (Delivery Versus Payment) settlement in the issuing currency through the book-entry institutions of the country / economy for which it is legal tender.</td>
</tr>
</tbody>
</table>
Underwriting

Regional and domestic financial institutions in ASEAN+3 will do this (and are well equipped to do so).

Disclosure Documentation

It is an object of the disclosure documentation to make a fair price formation possible by the smooth distribution and trade among professional investors through intermediaries. Therefore, by using the AMBIF disclosure documentation formulated based on the recommendations of ADRB, the disclosure of minimum required items of information that were standardized for professional investors is carried out at a designated place in the region (such as a Listing Place) in English. In other words, the disclosure requirements in AMBIF bond market is as follows.

1. It should fulfill the agreed requirements of certain level of information disclosure (continuous disclosure and disclosure at the time of issuance) for professional investors.
2. That information disclosure is subjected to inspection to professional investors. (Such as Listing if disclosure in an exchange, and in case of disclosure other than in exchange, registration and filing to a specified institution, etc.)

Other Documents

- Pre-issuance filings/registration documents
- Offering documents (Offering memorandum, etc.)
- Underwriting agreement and related documents
- Indenture and related documents
- Comfort letters and legal opinions
- Miscellaneous documents (Closing memorandum, etc.)
- Documents related to listing
- Post-issuance filing/registration documents

Initial Selling Restrictions

The initial purchasers are not to be limited only to the domestic professional investors in the issuing country. That is, within the regulatory authorities who agreed mutually / bilaterally or comprehensively / multilaterally, it is assumed that the intra-regional sales / transfer to professional investors in those countries / economies can be allowed.

Transfer Restrictions

There are no resale or transfer restrictions other than prohibiting transfer of bonds to non-professional investors.

Credit Rating

Basically, having a credit rating is desirable. But, even in case of the professional bond market in which there is no rating requirement, such bond without rating can be included as an AMBIF Bond. (Ratings acquisition may be treated as arbitrary.) (Presence or absence of the rating and the contents when getting the rating must be disclosed.)
The Small Working Group and ABMF (SF1)

Promotion of AMBIF Focus on:
1. Standardized Document and Procedures
2. Exploring Pilot Issuance

The Small Working Group (SWG) under TF3
Members: Hong Kong, Korea, Japan, Singapore and Thailand
Approach: Bilateral
Communication: E-mail and Conference Call
Reporting: To TF meeting by TF co-chairs

ABMF under TF3
Members: Market Participants and some authorities
Approach: Multilateral (ASEAN+3 wide)
Communication: Meetings (Three times in 2014), E-mail, Conference Call
Reporting: To TF meeting by ABMF Secretariat (ADB)

The small working group and ABMF (SF1)
1. Standardized Document and Procedures

The SWG under TF3
- SWG Activities: Annex I and II
- Start drafting a bilateral common format under the SWG
  - Just starting: Thailand and Japan
  - Planned: Hong Kong and Japan
  - Welcome another drafting a common format among SWG members
- Continuation of SWG activities after May
- Information sharing with non-SWG members requested by TF member

ABMF (SF1) & ADRB
- Done: First draft in the phase 2 report published in March 2014
- Support clarification commonalities and differences of bond issuance procedure and documentation between two of the small working group members ("bilateral approach")
- Identification commonalities and differentiations for standardized document multilateral purpose
- Identification obstacles procedures for prompt bond issuance
- ADB/OREI will be made role depositary function of SWG documents for information sharing among all ASEAN+3

Recommendation and suggestions
Regular Information Sharing and Reporting
Technical and feasibility check
Regular Information Sharing, Reporting and consultation
Recommendation and suggestions
Upon request and distribution
The Small Working Group and ABMF (SF 1)
2. Exploring Pilot Issuance

The SWG under TF3
(Will be taking necessary action, if necessary, as regulatory authorities and/or policy makers)

Identification of potential issuers and AMBIF Bond launch

Regular Information Sharing and reporting

Recommendation and suggestions

ABMF under TF3
• Extensive dialogues with potential issuers, investors and financial intermediaries:
  ➢ Market Research and Analysis: Potential Markets and Industries
  ➢ Aspiration bond issuer: government agencies or International agencies

• Identification of potential markets and what would appeal to issuers and investors:
  ➢ Introducing exemption treatment without change in current laws for AMBIF Bond
  ➢ Shortening and/or streamlining approval period and process i.e. automatic approval with non-objection base

Recommendation and suggestions
Action Plan: Small Working Group for Promoting
ASEAN+3 Multi-currency Bond Issuance Framework (AMBIF)

I. Background

AMBIF is a policy initiative to help facilitate cross-border transactions through standardized issuance and investment processes. To help achieve this goal, ASEAN+3 Deputies agreed, in their meeting in Shanghai in November 2013, to formulate a small working group on a voluntary basis to examine the existing issuance procedures/documentation and explore the possibility of a pilot issuance. Thus far, [Hong Kong, Thailand as well as Japan (proposer)] have joined the small group.

II. Goal

1. To clarify commonalities and differences of bond issuance procedure and documentation between two of the small working group members (“bilateral approach”).

2. This work does not entail any change in the current laws and regulations.

III. Actions

1. **February 2014.** Examine bond issuance procedure and documentation among the small working group members, via email and conference calls. Find commonalities and differences.

2. **TF meeting (March 1, 2014).** Japan will present a preliminary study result on commonalities and differences in bond issuance documentation/procedure [between Thailand and Japan]. TF members will agree that this study is a starting point for future standardization and that it will be reported to the Deputies meeting. They also provide technical comments.

3. **March 2014.** Further technical discussion among the small working group by incorporating all the comments that are received during the TF meeting. Complete the draft study result on clarification of commonalities and differences to the Deputies meeting. Seek feedback from the ABMF members if necessary.

4. **Deputies meeting (April 2/3, 2014).** Approval of the study result.

5. **AFMGM meeting (May 3, 2014).** Approval of the study result and based on this, encourage further works in order to (i) embark on more standardization (including beyond the small working group members); and (ii) continue to explore a pilot issuance.

Next Steps

The above-mentioned study will crystalize differences in bond issuance framework between different countries (e.g., documentation items that are not common). Following the AFMGM meeting, ASEAN+3 members may wish to discuss ways forward for further standardization by focusing on these differences. Going forward, focus could be placed on specific issues that are related to promotion of professional bond markets.
I. Overview

1. This paper elaborates key facts on commonalities and differences of bond issuance framework between Thailand and Japan. The two countries’ technical teams worked together through two telephone conference calls and intensive email exchanges.

II. Process

2. The issuance process is not confined to filing and disclosure but includes all the necessary approval and reporting processes.

3. In Thailand, the issuer must go through several different steps: first, if the issuer is a foreigner, it must obtain an approval from Public Debt Management Office (PDMO) of the Ministry of Finance. Second, it must file a registration statement/prospectus to the Thai SEC. Third, it must report the issuance to Thai Bond Market Association (ThaiBMA). The first process usually takes one month, while the second and third processes take several days.

4. In the Japanese professional bond market, the issuer must file a disclosure document to Tokyo Stock Exchange, which takes less than one day.

III. Documentation

5. The work involved comparison between (i) Thai SEC and ThaiBMA documents and (ii) Tokyo Stock Exchange documents. The items in the Thai SEC filing documents are required by law, while both ThaiBMA documents and TSE documents are required by ThaiBMA and TSE themselves, respectively.

6. Commonalities: Attachment A format shows common items for new bond issuance/listing required by Thailand and Japan. Our work shows that most items of the bond that require by both Thailand and Japan.

7. Country-specific differences. First, Japanese TSE requires credit rating, while credit rating information is provided on a voluntary basis in Thai SEC and ThaiBMA (only plain bond) but not for PDMO. Please be informed that PDMO (who is responsible for approval of baht bond issued by foreign issuers) requires bonds to be rated by international credit rating agencies. Second, Japan requires the information on the bond administrator. The bond administrator is a financial institution who is appointed by the issuer and undertakes administrative works on behalf of bondholders. On the other hand, the Thai SEC filing documents requires the information on the registrar.

---

1. Based on PDMO requirement, there are three submission periods/a year (within March, July and November). The PDMO requires that the tenors of bonds must be NOT less than 3 years.

2. After the end of each submission period

3. ONLY government agencies and any entities guaranteed by government are exempted from the international credit rating requirement.
bondholder representative (if any), major shareholders, and legal advisor. Further, for primary market, the issuers require to submit offering price to both Thai SEC/ThaiBMA while the issuer submits the selling price itself to the Tokyo Stock Exchange.

IV. Issues for discussion

8. Does TF agree that the comparison between Thailand and Japan is a building block for further standardization of issuance process and documentation to realize an AMBIF pilot issuance?

9. Does TF agree that the small working group will continue its work and report its research result (including not only Thailand-Japan, but also bilateral discussion among other small working group members) to the Deputies meeting?

10. Does TF agree that the comparison between Thailand and Japan can be shared in the next ABMF and seek further feedback from market participants?

Remark:
Bondholders’ Representative

- Monitor and manage all the processes involved in bondholders’ agreed objectives.
- Safeguard bondholders’ benefits as defined by the issuers.
- Safekeeping investors’ financial assets and letters of guarantee.
- Report to bondholders and set up meetings in accordance with bondholders’ prospectus.
- Verify balance sheets and annual reports.

Registrar

- To keep an up-to-date register for all transactions.
- To arrange dividend and interest payments.
- To issue new bond certificates in addition to transferring, canceling, pawning or withholding securities.
## Attachment A: Common items between Japan and Thailand

<table>
<thead>
<tr>
<th>General information</th>
<th>Japan</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Announcement</td>
<td>On front page &quot;Provide other important details of an offer for sale of debt securities, for instance, name of underwriter, effective date etc.&quot;</td>
<td></td>
</tr>
<tr>
<td>Issuer Name</td>
<td>S. 69 (2) &quot;name of the issuing company which issues securities&quot;, on front page &quot;company name&quot;</td>
<td></td>
</tr>
<tr>
<td>Address of Main Office</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telephone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Person</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address of Website for Announcement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name and Title of Representative</td>
<td>S. 69 (8) &quot;management and major shareholders of the issuing company &quot; and certification of information &quot;authorized directors or the person who holds the highest executive position and is authorized by authorized directors&quot;</td>
<td></td>
</tr>
<tr>
<td>Notes to Investors</td>
<td>S. 70 (1) &quot;rights and restrictions related to the transfer of bills or debentures&quot; and in terms and conditions</td>
<td></td>
</tr>
<tr>
<td>Type of Information: Specified Securities Information</td>
<td>S. 69 (4) &quot;amount and type of the securities offered for sale&quot; and in terms and conditions</td>
<td></td>
</tr>
<tr>
<td>Type of Securities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Issuance Value of Securities or Total Sale Value of Securities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 1. Terms and conditions

<table>
<thead>
<tr>
<th>Japan</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Face Value or Total Value of Book-Entry Transfer Bond</td>
<td></td>
</tr>
<tr>
<td>Denomination</td>
<td></td>
</tr>
<tr>
<td>Total Issuance Value</td>
<td>S. 69 (5) &quot;expected selling price per unit of securities&quot; and in terms and conditions</td>
</tr>
<tr>
<td>Issuance Price</td>
<td></td>
</tr>
<tr>
<td>Issue</td>
<td>On front page &quot;Specify key characteristics of the debt securities being offered, for instance, type, amount, offer price per unit and buyer details and rating of issue, offeror guarantor.&quot; and in terms and conditions</td>
</tr>
<tr>
<td>Registered / Bearer</td>
<td></td>
</tr>
<tr>
<td>Interest Rate ( %)</td>
<td>S. 70 (2) &quot;return on debentures and bills &quot; and in terms and conditions</td>
</tr>
<tr>
<td>Method of Interest Payment</td>
<td></td>
</tr>
<tr>
<td>Interest Payment Date</td>
<td>S. 70 (7) &quot;procedure, time, and place of repayment&quot; and in terms and conditions</td>
</tr>
<tr>
<td>Final Redemption Date</td>
<td></td>
</tr>
<tr>
<td>Method of Redemption</td>
<td></td>
</tr>
<tr>
<td>Payment Date</td>
<td></td>
</tr>
<tr>
<td>Method of Solicitation of Purchase from Specified Investors</td>
<td>S. 70 (1) &quot;rights and restrictions related to the transfer of bills or debentures&quot; and in terms and conditions</td>
</tr>
<tr>
<td>Application Deposit</td>
<td>S. 69 (10) &quot;procedures for the subscription, underwriting and allocation of securities&quot; and in terms and conditions</td>
</tr>
<tr>
<td>Application Period</td>
<td></td>
</tr>
<tr>
<td>Places Handling Applications</td>
<td></td>
</tr>
<tr>
<td>Type of Collateral</td>
<td>S. 70 (3) &quot;property or other collateral used as security for repayment&quot; and in</td>
</tr>
<tr>
<td>Rank of Collateral</td>
<td>terms and conditions</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Amount of Credit Obligations with Senior-Collateral</td>
<td></td>
</tr>
<tr>
<td>Right to Assert against Secured Creditor</td>
<td></td>
</tr>
<tr>
<td>Security of Collateral</td>
<td></td>
</tr>
<tr>
<td>Trustee Company under Secured Bonds Trust Act</td>
<td>S 70 (4) &quot;debenture holder representative&quot; and in terms and conditions</td>
</tr>
<tr>
<td>Financial Covenants (Negative Pledge Clause)</td>
<td>On front page &quot;Specify key characteristics of the debt securities being offered, for instance, type, amount, offer price per unit and buyer details and rating of issue, offeror guarantor.&quot; and in terms and conditions</td>
</tr>
<tr>
<td>Financial Covenants (Others)</td>
<td></td>
</tr>
<tr>
<td>Information on guarantor of the company</td>
<td></td>
</tr>
<tr>
<td>Book-Entry Transfer Institution</td>
<td></td>
</tr>
</tbody>
</table>
| Information on Credit Ratings | On front page "In case of credit rating is voluntary provided. Specify if the offeror will continue provide credit rating until redemption date. "Remark: PDMO (who approves Baht bond issued by foreign issuer) requires international credit rating."
| 2. Underwriting | |
| Name of Underwriter (1), (2), (3) | S. 69 (10) "procedures for the subscription, underwriting and allocation of securities" and on front page "Provide other important details of an offer for sale of debt securities, for instance, name of underwriter, effective date etc."
| Address (1), (2), (3) | |
| Underwriting Value (1), (2), (3) | |
| Total | |
| Underwriting Terms and Conditions | |
| 3. Purpose of proceeds from issue of new securities | Purpose of Proceeds S. 69 (1) "objective of the offer for sale of the securities to the public or any person"
| Estimated Amount of Issuance Expenses | |
| 4. Other matters | S. 69 (11) / S. 70 (9) "other information as specified in the notification of the SEC"
| 5. Corporate information (e.g., financial statement) (Status of Submission of Annual Securities Reports) | S. 69 (3) "capital of the company", (6) "nature of the business", (7) financial condition, business operation, and material information of the business and (9) "auditor, regularly contacted financial institutions, and legal advisor of the issuing company" and S. 70 (6) outstanding debt from previous issues of bills or debentures
| 6. Matters related to other securities | |
Work Plan and Other Issues

ADB Secretariat Team
Shinji Kawai, OREI, ADB

15th ABMF Meeting
Manila, Philippines, 18th March 2014

* Contents of the presentation could be changed subject to the members’ discussion during the meeting

Outline

1. Publication of Phase 2 report
2. Work plan after Manila meeting
Phase 2 Report Publication

- Published on ADB’s and other ABMF members’ web-site (18th March 2014).

  - Any members who are interested in posting the reports on their web-sites are welcome.

(Sub-Forum 1)

“Proposal on ASEAN+3 Multi-Currency Bond Issuance Framework”

(Contents)

I. Background
II. Basic Approaches
III. Development the Concept of AMBIF
IV. AMBIF Components Required for implementation
V. AMBIF Regulatory Process
VI. Market Requirements and Components
VII. Conclusion
VIII. Next Step in ABMF Phase 3

Phase 2 Report Publication

(Sub-Forum 2)

“Information on Transaction Flows and Settlement Infrastructures”

(Contents)

Part 1: Bond Markets and Their Infrastructures in ASEAN+3

Part 2: Bond Markets and Their Infrastructures in Individual Economies


- Bond infrastructure and transaction diagrams of Brunei Darussalam, Cambodia, Lao PDR and Myanmar are newly included.
Work Plan after Manila Meeting

- 2Q 2014: Market guide update
  - Cambodia and Myanmar will be included as result of BCLMV knowledge support and market visits.
  - Hits on ADB website alone exceeded 1 million (as of Jan.2014)
  - Also updates in Phase 3. Conduct needs analysis of the markets and other users for further improvement.

<Phase 3 ABMF activities: 2014 – 2015 H1>

- 15th ABMF meeting (18 Mar 2014)
  (SF1) Work plan for AMBIF implementation / pilot issues
  (SF2) Work plan for the standardization and new study

- 16th ABMF meeting (Jul – Aug 2014)
  (SF1) AMBIF discussion / Pilot issuance / Market visits findings
  (SF2) Discussion standardization and study / Market visits findings

- 17th ABMF meeting (Oct – Nov 2014)
  (SF1) Finalization of ABMF implementation / pilot issue plans
  (SF2) Draft interim report on the Phase 3 study

- Reporting to ABMI TF3 (Nov 2014)
  - Reporting the result on AMBIF implementation and pilot issue
  - Reporting the interim reports of the Phase 3
Work Plan after Manila Meeting

- 2015 (H1)
  - ABMF meetings: 18th (Feb – Mar) and 19th (May– Jun) (TBC)
  - (SF1) Follow up on the implementation of AMBIF / pilot issue
  - (SF2) Finalizing Phase 3 study: Reference DVP model, message format/items, cross-border repo and collateral
  - Final reporting to ABMF TF3 in Q1 2015 and submission of the reports to AFM CBG meeting in May 2015
  - 2nd Update of the Market Guide (by Jun 2015)

Thank You

For further information
Mr. Shinji Kawai, Senior Financial Sector Specialist: skawai@adb.org
Mr. Kuei-Hua Wu, Financial Sector Specialist: khwu@adb.org
Phase 3 Activities of ABMF SF2

18 March 2014 in Manila

Taiji Inui
ADB Consultant - Financial Information Technology Specialist
NTT DATA Corporation

Agenda

1. Updating Phase 2 Report of ABMF SF2
   A) Publication of the Phase 2 Report
   B) Outline of ASEAN+3 Bond Market Infrastructures (draft)

2. Work Items of Phase 3 Activities
   A) Work on Harmonizing Message Flows
   B) Work on Standardizing Message Items
   C) Standardization of securities numbering (ISIN)
   D) Study on Cross-border Collateral and Repo Services

3. Roadmap to implement cross-border STP in ASEAN+3

4. Possible transaction flows of bond issuance and subsequent settlement
ADB Secretariat in particular ADB consultant for ABMF SF2 express their heartfelt gratitude to Members and Experts for kind advice, support, and information to complete the ABMF SF2 Phase 2 Report.

Phase 2 Report of ABMF SF2

A) Publication of Phase 2 Report
  - The Phase 2 report will be published in March 2014.
  - The Report will be posted on ADB website
  - The Report will also be posted on some mirror sites
    If members and experts post the Report on their website, ADB secretariat appreciate it.

B) Outline of ASEAN+3 Bond Market Infrastructures and Activities of ABMF SF2 (preliminary draft)
Phase 3 Activities

Purpose of harmonization: to enhance cross-border STP in ASEAN+3

ABMF SF2 Phase 3 Work Plan

1. Harmonization of message flows
   - DVP reference model
2. Standardization of message items
   - ISO20022 implementation
3. Common rule on ISIN
   - NNA(National Numbering Agency) should allocate ISIN within 24 hours following the request and make the ISIN available to users at the same time (within the day).
4. Cross-border collateral & cross-currency repo
   - Survey based on questionnaire
5. Compile Phase 3 report
2. Work Items of Phase 3 Activities

A) Harmonizing Message Flows

1) ABMF SF2 will propose Reference DVP Model(s) for both government bond and corporate bond settlement.
   - The members and experts of ABMF SF2 will agree that the bond market infrastructure providers and operators in ASEAN+3 try to develop their bond market infrastructures in line with one of the reference models when they reconstruct/renew their systems.

2) Currently three candidates of Reference DVP Models of DVP flow are proposed through the discussions during the Phase 2 activities.
   ① The first model is central matching type with PSMS (pre-settlement matching system) model.
   ② The second model is also central matching type utilizing forward (future dated) transaction of CSD bond settlement system entering the transaction on S-1 as an alternative measure of automated PSMS.
   ③ The third model is local matching type of DVP flow.
2. Work Items of Phase 3 Activities

A) Harmonizing Message Flows

3) The reasons why the three models were chosen as the candidates DVP flow were as follows;

① DVP flow can be categorized into two types of pre-matching, central matching and local matching;

② local matching type of bond settlement systems are currently processing significant volume and value of bond transactions; and

③ Reference Model(s) of DVP Flow are in line with basic principles.

④ automated PSMS was ranked as top of wish list of many of global bond trade and settlement players based on the previous survey of ABMF SF2;

---

Singapore – Government Bond Settlement
Model 1 DVP

Diagram of the DVP settlement process for Singapore government bonds, showing the steps and instructions for different parties involved in the settlement process.
Indonesia – Government Bond Settlement
Model 1 DVP

Negotiable / Normally T+2

Trade date

Client place buy order with local broker / agent

Send DVP Instruction

Buying Broker / Sub-Registry

Settlement at BI-SSSS* for both securities and cash

Cash

Securities

Cash

Securities

RTGS

Selling Broker / Sub-Registry

Trade date

Client place sell order with local broker / agent

Sent DVP Instruction

Trade Confirmation

Pre-matching is done manually with the counterparty once the instruction is received.
Cut-off time for Against / Free of Payment: 5pm
* BI-SSSS: Bank Indonesia Scripless Securities Settlement System

Wish list

• Pre-matching function
• SWIFT compatible

Source: HSBC, JPMorgan, State Street

Hong Kong – Bond Settlement
Model 1 during the day. Model 3 at the end of the day

OTC Trades: Negotiable

Global Custodian → HSBC

Investor

STP Y N

Repair instruction

Pre-match with counterparty via MT544 on T+1

Y

Identify unmatched reason and advise client via MT548 on T+1

Identify unmatched reason and advise client via MT548 on SD

Send advice for failed trades (MT548)

On SD

On SD

On SD

Send advance for failed trades (MT548)

Update securities & cash accounts

Send settlement confirmations and credit / debit advices (MT544–547 / MT900 & 910)

Y

N

Wish list

• Pre-matching platform
• Standard settlement cycle
• Turnaround trade functionality

Source: HSBC, JPMorgan, State Street

Instruction mode:
• SWIFT – 98.80%
• HSBCnet – 0.05%
• Hardcopy – 1.17%

Instruction mode:
• SWIFT – 96.2%
• HSBCnet – 3.5%
• Hardcopy – 0.5%
Thailand – Bond Settlement
Model 1 DVP

**Instructor**

- Instructions from Global Custodian by 9am, BQ

**Non-Stop**
- SWIFT – 90%
- HSBCnet – 3%
- Hardcopy 7%

**STP**
- HSBC pre-match trade on STP
- Confirm in house system
- MT540-3 released from in house system to TSD’s PTI system
- TCH settle trades in PTI cash moves in Bahtnet
- TCH releases MT544-8 to sub-custodian as settlement confirmation
- Settlement trades in house system

**Repair**
- SWIFT MT548 / unmatched report with reasons transmitted

**TSD – Thailand Securities Depository**
**TCH – Thailand Clearing House**
**PTI – Post Trade Integration System**

**Source:**
- Draft of reference DVP Flow (a model to start discussions)
- Brochure
- TS/PTMS Trade Data
- Custodian
- Correspondent Bank
- TSD System
- 8c. Cash Settlement Confirmation
- RPS System
- 12a. Cash Settlement Confirmation
- 12b. Cash Settlement Confirmation
- 13. Cash Settlement Confirmation
- 14. Bond Settlement
- 15a. Bond Settlement Confirmation
- 15b. Bond Settlement Confirmation
- 16. Matched result

**Trade Data**

- Sell side
- Trade
- Pre-settlement Matching
- Add SSI
- Matched result
- 1. Settle. Instruction
- 4. Pre-settlement Matching
- 5a. Matched result
- 5b. Matched result
- 6. Matched result
- 7. Lock seller's Bond
- 9b. Cash Settlement Inst.
- 10. Affirmation
- 11. Cash Settlement
- 12a. Cash Settlement Confirmation
- 12b. Cash Settlement Confirmation
- 13. Cash Settlement Confirmation
- 14. Bond Settlement
- 15a. Bond Settlement Confirmation
- 15b. Bond Settlement Confirmation
- 16. Matched result
- 17. Affirmation
- 18. Cash Settlement
- 19a. Cash Settlement Confirmation
- 19b. Cash Settlement Confirmation
Draft of reference DVP Flow (an alternative model)
Basic conditions to harmonize message flows

1. Real time gross settlement is to be used for both bond settlement and cash settlement.
   - This does not necessarily mean to prohibit net settlement.
2. DVP (delivery versus payment) is to be secured.
3. Central bank money is to be used for cash settlement.
4. Data are to be transferred from upstream infrastructure to downstream infrastructure where and when possible.
5. Quality of data transferred and processed is to be confirmed when the data are entered by different party.
6. Results of processes in infrastructures are to be informed to participants appropriately.

Harmonization of message flows

1. ABMF SF2 members and experts are requested to improve the three candidates of draft Reference Model of DVP flows.
2. Could you answer which candidate best fit to your DVP flow, please?
3. What is not appropriate to adopt any of three candidate flows?
Standardization of message items

1) Input data items of following messages of DVP flow will be standardized compliant with ISO 20022.
   a) The message from upstream infrastructure to PSMS or CSD corresponding to settlement instruction message
   b) Affirmation message from participants to PSMS or CSD responding to the forwarded message from PSMS or CSD to the participants.
   c) Matched result from PSMS or CSD to participants
   d) Settlement confirmation message from CSD to participants
   e) Affirmation of cash settlement message from RTGS participants (buy side) to RTGS
   f) Cash settlement confirmation message from RTGS to RTGS participants
Standardization of message items

2) Generally, messages and their items are to be compliant with ISO 20022. However, more specific standardization of message items is expected to reduce un-ambiguity. As a starting point of standardization of message items, definition and interpretation of message items of settlement instruction will be standardized.

- Each message item will be categorized as mandatory or optional. Also, the definition and meaning of each item will be clarified and defined in line with ISO 20022 message definition.
- Regarding the case of third model (local matching), message items of settlement instruction from sell side or buy side will be standardized corresponding to a) and b) of the above.

Draft of reference DVP Flow (an alternative model)

[Diagram of the DVP Flow process]
Message types to be discussed

<table>
<thead>
<tr>
<th>Message</th>
<th>ISO15022</th>
<th>ISO20022</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Settlement Instruction</td>
<td>(MT541, MT543)</td>
<td>(sese.023)</td>
</tr>
<tr>
<td>3. (Affirmation) Settlement Instruction</td>
<td>MT541, MT543</td>
<td>sese.023</td>
</tr>
<tr>
<td>5. Matched result</td>
<td>MT548</td>
<td>sese.024</td>
</tr>
<tr>
<td>10. Affirmation of Cash Settlement Instruction</td>
<td>MT202</td>
<td>pacs.009</td>
</tr>
<tr>
<td>12. Cash Settlement Confirmation</td>
<td>MT900</td>
<td>camt.054</td>
</tr>
<tr>
<td>10. Affirmation of Cash Settlement Instruction</td>
<td>MT202</td>
<td>pacs.009</td>
</tr>
<tr>
<td>15. Bond Settlement Confirmation</td>
<td>MT545, MT547</td>
<td>sese.025</td>
</tr>
</tbody>
</table>

(to be confirmed)

Note: possible message types between bond market infrastructures are shown in parentheses.

Standardization of message items

3) Currently settlement and reconciliation related messages are chosen to be standardized based on ISO 20022. Since messages related to corporate actions including notification messages of interest payment (MT56x, seev.0xx) are also important, it may be necessary to discuss and standardize them.
Common rule on ISIN allocation

1) Ten markets where bond markets are already developed in ASEAN+3 have NNA (National Numbering Agencies). However, the recommendation of ANNA (Association of National Numbering Agency) that NNAs should allocate ISINs within 24 hours following the request of issuance and also make the ISIN available to users at the same time is not necessarily implemented yet in some economies.
Common rule on ISIN allocation

2) ISIN allocation flow and process from issuance to dissemination of bond to users will be surveyed. Based on the result, improvement and standardization of the process will be proposed as a policy recommendation to ASEAN+3 Finance Ministers and Central Bank Governors if any.

Outline of Corporate Bonds Numbering in Japan

Issuers

Issuing Agents

JASDEC

Book-Entry System
For Corporate Bonds

Publication of New Code (real-time basis)

JASDEC Participants
(Securities Companies, Custodian Banks...)

New Code Database Service

ANNA

Reporting New Code

Securities Identification Code Committee
(Numbering Agency in Japan)

Tokyo Stock Exchange

Source: JASDEC
Companies in ASEAN+3 are expanding their businesses globally, especially in ASEAN+3, and consequently their traffic of cross-border funds transfer in the LCYs in the region is growing. Naturally, financial institutions in the region are increasing their lending outside the economy in line with the growing regional business of their customers, and therefore it is becoming very important for them to have stable sources of funding in LCY other than their own currencies, for example, by making use of financial assets denominated in their own currencies that they have abundantly on their balance sheets. In addition, as more and more non-residents are investing in their own currency denominated bonds, there are growing business opportunities to offer their own currency custody services to customers of other economies. Furthermore, there is an increasing awareness among market participants that the new regulations related to OTC derivatives, for instance, are likely to increase the importance of market infrastructures that support flexible mobilization of LCY denominated bonds and other high-quality collateral assets.

Cross-border collateral & cross-currency repo

(Cross-border collateral)

1) Some central banks in ASEAN+3 have been collaborating with other central banks to establish such a cross-border collateral arrangements, where a foreign central bank provides liquidity in its local currency against other currency denominated bonds to its counterparty financial institutions, using the foreign central bank as a custodian for receiving the bond collateral from those financial institutions. Some central banks have been working with other central banks in ASEAN+3 to establish such cross-border collateral arrangements.
Cross-border collateral & cross-currency repo

(Cross-border collateral)
2) With those arrangements, banks and financial institutions in the region will have additional sources of local currencies from local central banks in stressed funding conditions in local financial markets. That backstop will enable global financial institutions to manage their liquidity in each local currency more stably, which will in turn facilitate their stable lending to corporate customers in local currencies.
3) The cross-border collateral arrangements provide a liquidity backstop in times of stress. In that respect, market-based solutions for stable daily funding in foreign currencies are just as important as, or possibly more important than, those central bank arrangements.
Workflow of a deposit of Cross-Border Collateral

1. BOJ-NET JGB Services
2. Securities firm X (Japan base)
3. Sub custodian (customer account)
4. ICSD or Global custodian (customer account)
5. CCP (own account)

Source: BOJ translated by NTT DATA

Workflow of a settlement of cross-currency repo against JGB

1. BOJ-NET JGB Services
2. Sub custodian (customer account)
3. ICSD or Global custodian (customer account)
4. Local bank A (own account)
5. Securities firm X (Japan base)
6. Securities firm X (overseas base)

Source: BOJ translated by NTT DATA
Survey on cross-border collateral & cross-currency repo

(Cross-currency repo)
One idea supporting this is to link a securities settlement system in one country with a central-bank-operated payment system in another country. Another idea is to set up a cross-border link between securities settlement systems. With such cross-border links, market participants will be able to settle foreign-currency funding transactions against domestic collateral assets, known as cross-currency repos, in safe central bank money on a DVP basis. Further, with such links, local investors will have easier access through their local securities settlement system to foreign securities, which will help increase intra-regional securities investment in the long run.

Survey on cross-border collateral & cross-currency repo

1) Survey on cross-border collateral and cross-currency repo will be made on regulation, market practice, message flow, etc. Questionnaire for that purpose will be prepared cooperating with members and experts of ABMF SF2.
2) Based on the survey results, current markets will be compared. Also, standardization of cross-border services of related business including possible policy recommendations will be discussed.
Possible Roadmap of phase 3 (revised)

<table>
<thead>
<tr>
<th>2014</th>
<th>2015 (first half)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmonize Message flows</td>
<td>Harmonize Message flows</td>
</tr>
<tr>
<td>Discuss reference model</td>
<td>Propose reference model</td>
</tr>
<tr>
<td>Propose reference model</td>
<td>Agree reference model</td>
</tr>
<tr>
<td>Standardize message items</td>
<td>Standardize message items</td>
</tr>
<tr>
<td>Propose messages to be standardized</td>
<td>Discuss message items</td>
</tr>
<tr>
<td>Discuss message items</td>
<td>Standardize message items</td>
</tr>
<tr>
<td>Propose basic requirements of GIW</td>
<td>Develop roadmap</td>
</tr>
<tr>
<td>Prevail common rule on ISIN</td>
<td>Prevail common rule on ISIN</td>
</tr>
<tr>
<td>Discuss common rule</td>
<td>Discuss how to disseminate ANNA rule</td>
</tr>
<tr>
<td>Develop roadmap</td>
<td>Propose basic requirements of GIW</td>
</tr>
<tr>
<td>Study cross-border collateral and repo</td>
<td>Study cross-border collateral and repo</td>
</tr>
<tr>
<td>Survey current services</td>
<td>Identify barriers</td>
</tr>
<tr>
<td>Identify barriers</td>
<td>Discuss the barriers from cross-border STP perspective</td>
</tr>
<tr>
<td>Propose policy recommendations</td>
<td>Compile survey results including messages and ISIN</td>
</tr>
<tr>
<td>Complete report</td>
<td>Complete report</td>
</tr>
</tbody>
</table>

Work plan: Possible work (implementation) plan is as follows:

March 2014: 15th ABMF SF2
- Propose draft questionnaire for the phase 3 survey to harmonize the DVP flow and to standardize message items including common rule of ISIN. Propose messages to be standardized
- Propose draft questionnaire for cross-border collateral and cross-currency repo.

August 2014: 16th ABMF SF2
- Discuss reference model and propose messages including items to be standard
- Compile survey results including messages and ISIN
- Barriers related to cross-border collateral and repo are also identified
Work plan: Possible work (implementation) plan is as follows:

December 2014: 17th ABMF SF2
- Agree reference model; standardize message items; set-up roadmap to prevail common rule of ISIN
- Draft Phase 3 Report

February 2015: 18th ABMF SF2
- Finalize Phase 3 Report to ABMI TF3 and ASEAN+3 Finance Ministers and Central Bank Governors’ Meeting
- Discuss next step if any

May 2015: 19th ABMF SF2
- Publish Final Report
- Next step if any

Roadmap to implement cross-border STP

Roadmap to implement cross-border STP will be proposed at the end of Phase 3.

Could you refer to the handout, please?
Seamless interoperability of cross-border bond trade and settlement

Generic Model of Cross-Border Bond Transaction Flow in ASEAN+3

Customer Side
- Investment Manager
- C1. Order
- C2. Affirmation
- C3. Instruction
- Global Custodian
- CL Instruction
- CL Pre-settlement Matching System
- CL-Central Bank
- CL-Correspondent Bank

Street Side
- S1. Order
- S2. Instruction
- S3. Settlemnt Data
- F: PSMS and/or CCP
- S4. Instruction
- S5. Settlement Confirmation
- Correspondent Bank
- Central Bank

Intermediate
- A: OTC Market
- B: Post-trade Matching
- C: Pre-settlement Matching (PSMS)
- D: CSD
- E: Central Bank
- F: PSMS and/or CCP
- G: Transaction And Matching Status
- H: Transaction And Matching Status
- I: Transaction And Settlement Confirmation
- J: Transaction And Settlement Confirmation
- K: Transaction And Settlement Confirmation
- L: Transaction And Settlement Confirmation

Source: ABMF SF2.
Typical DVP Flows for Foreign Institutional Investors

1. Trade Order
2. Trade Order
3. Agreement on Trade & Confirmation
4. Trade Confirmation
5. Trade Confirmation
6. Settlement Instruction
7. Settlement Instruction
8. Settlement Instruction
9. Settlement Matching Notice
10. Matching Status Update
11. Funding of Account
12. Cash Settlement Confirmation
13. Settlement Confirmation
14. Settlement Confirmation
15. Funding of Trades
16. Cash Statement
17. Cash Statement
18. Cash Statement
19. Cash Statement

Typical FX and Cash Control in ASEAN+3

<table>
<thead>
<tr>
<th>Country</th>
<th>FX Trades with Underlying Investment</th>
<th>Pre-funding</th>
<th>Prohibition of Third-party FX</th>
<th>FX Reporting</th>
<th>Prohibition of Overdraft by Non-residents</th>
<th>Prohibition of Offshore FX Trading for Investment</th>
<th>Limitation on Repatriation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>HK</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>ID</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>JP</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>KR</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>MY</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>PH</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>SG</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>TH</td>
<td>Y/N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>VN</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N/Y</td>
</tr>
</tbody>
</table>

* In Korea, third party FX is legally possible but practically not used.
Possible roadmap for the implementation of cross-border STP by developing bond market infrastructures in ASEAN+3 (Preliminary draft image)

- A preliminary draft of possible roadmap for the implementation of cross-border STP by harmonizing message flows and by standardizing message items including numbering and coding in ASEAN+3 is shown as follows.
- Current status of cross-border STP in ASEAN+3 as of January 2014 is to be shared by ABMF SF2 members and experts.
- Possible roadmap predicting each status of cross-border STP in ASEAN+3 as of January 2016, 2018, and 2020 is shown as well.
- Current status of cross-border STP in each economy is shown based on the information obtained from members and experts.
- Possible roadmap showing the statuses of cross-border STP in the region in January 2016, 2018, and 2020 is predicted by ADB consultant based on the information.

<table>
<thead>
<tr>
<th>Color</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>Cross-border STP ready</td>
</tr>
<tr>
<td>Blue</td>
<td>Cross-border STP ready with conditions</td>
</tr>
<tr>
<td>Yellow</td>
<td>Not ready but scheduled</td>
</tr>
<tr>
<td>Orange</td>
<td>Not clear and need to be confirmed</td>
</tr>
<tr>
<td>Red</td>
<td>Not ready yet</td>
</tr>
</tbody>
</table>

Outline of Numbering and Coding Standards

ISO 20022 supports proprietary practices
1. Message flow harmonization

① RTGS: Real time gross settlement is used for both bond settlement and cash settlement.
② DVP: Delivery versus payment is secured.
③ Central Bank Money: Central bank money is used for cash settlement.
④ STP: In order to implement straight through processing (STP), data are transferred from pre-settlement matching system to cash settlement system through securities settlement system.
⑤ Affirmation and Notification: Quality of data transferred and processed is confirmed when the data are entered by different party. Also, results of processes in infrastructures are informed to participants appropriately.
⑥ PS-Matching: Pre-settlement matching is automated by pre-settlement matching system (PSMS). Other than PSMS, pre-settlement matching by forward dated data entry on S-1 is available.

<table>
<thead>
<tr>
<th>Name of Bond Settlement System</th>
<th>Inst.</th>
<th>Message flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSD</td>
<td>RTGS</td>
<td>DVP</td>
</tr>
<tr>
<td>CN</td>
<td>Y</td>
<td>Y(2008)</td>
</tr>
<tr>
<td>CN</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>CN</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>HK</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>ID</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>JP</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>JP</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>KR</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>MY</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>PH</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>SG</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>TH</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>VN</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

To be confirmed
2. International Standard for message items of Securities Settlement System

① ISO15022: ISO15022 is adopted for the messages related to bond settlement
② ISO20022: ISO20022 is adopted for the messages related to bond settlement
③ ISIN (adoption): ISIN is adopted (full membership of NNA exists)
④ ISIN (allocation): ISIN is allocated within 24 hours after issuance and notified to members within the day
⑤ BIC: BIC can be used. This include conversion by using table with proprietary codes.
⑥ Character code set: Unicode (UTF-8) is adopted.
⑦ Communication protocol: TCP/IP is adopted as communication protocol
⑧ Inauguration current system: Inauguration year of current bond settlement system
⑨ Reconstruction period: Plausible go-live year of reconstruction based on the assumption of ADB Consultant for ABMF SF2

<table>
<thead>
<tr>
<th>CSD</th>
<th>Name of Bond Settlement System</th>
<th>Inst.</th>
<th>ISO (ISO15022)</th>
<th>ISIN (adoption)</th>
<th>BIC</th>
<th>Character code set</th>
<th>Communication protocol</th>
<th>Overall Inauguration current system</th>
<th>Reconstruction period</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN</td>
<td>CSDC</td>
<td>CBGS</td>
<td>G/C</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>CN</td>
<td>CSDC</td>
<td>NSS</td>
<td>G/C</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>CN</td>
<td>SHCH</td>
<td>SHCH-SSS</td>
<td>C</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>HK</td>
<td>HKMA</td>
<td>CMU</td>
<td>G/C</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>ID</td>
<td>KSEI</td>
<td>C-BEST</td>
<td>C</td>
<td>Y (2015)</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>JP</td>
<td>JASDEC</td>
<td>BETS</td>
<td>C</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>MY</td>
<td>BNM</td>
<td>RENTAS SSTS</td>
<td>G/C</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>PH</td>
<td>BTr</td>
<td>ETC-BRASS</td>
<td>G/C</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>PH</td>
<td>PDTC</td>
<td>PDTC Depository</td>
<td>G/C</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>SG</td>
<td>MAS</td>
<td>MEPS plus SGS</td>
<td>G/C</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>SG</td>
<td>CDPC</td>
<td>DCSS</td>
<td>C</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>TH</td>
<td>KSD</td>
<td>FTI</td>
<td>G/C</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>VN</td>
<td>VSD</td>
<td>VSD-BES</td>
<td>G/C</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
</tbody>
</table>

To be confirmed
3. International Standard for message items of RTGS System

① ISO15022: ISO15022 is adopted for the messages related to bond settlement
② ISO20022: ISO20022 is adopted for the messages related to bond settlement
③ BIC: BIC can be used. This include conversion by using table with proprietary codes.
④ Character code set: Unicode (UTF-8) is adopted.
⑤ Communication protocol: TCP/IP is adopted as communication protocol
⑥ Inauguration current system: Inauguration year of current bond settlement system
⑦ Reconstruction period: Plausible go-live year of reconstruction based on the assumption of ADB Consultant for ABMF SF2

<table>
<thead>
<tr>
<th>Operator</th>
<th>Name of the System</th>
<th>Standardization of Message Items (RTGS)</th>
<th>System renewal</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>BI</td>
<td>BIC: N</td>
<td>Nov 2000</td>
</tr>
<tr>
<td>KR</td>
<td>BOK</td>
<td>Commun. protocol: Y</td>
<td>FY2015</td>
</tr>
<tr>
<td>MY</td>
<td>BNM</td>
<td>Overall: Y</td>
<td></td>
</tr>
<tr>
<td>PH</td>
<td>BSP</td>
<td>Inauguration current system: Y</td>
<td></td>
</tr>
<tr>
<td>SG</td>
<td>MAS</td>
<td>Reconstruction period: Y</td>
<td></td>
</tr>
<tr>
<td>TH</td>
<td>BOT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VN</td>
<td>BIDV</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To be confirmed
4. Others

① Account structure: Omnibus account is allowed.
② FX control: Foreign exchange control does not exist.
③ Cash control: Cash control does not exist.
④ WHT for non-residents: Withholding tax for non-residents is exempt.

<table>
<thead>
<tr>
<th>CSD</th>
<th>Name of Bond Settlement System</th>
<th>Inst.</th>
<th>Account structure</th>
<th>FX control</th>
<th>Cash control</th>
<th>WHT for non-residents</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN</td>
<td>CCDC</td>
<td>G/C</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>CN</td>
<td>CSDCC</td>
<td>G/C</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>CN</td>
<td>SHCH</td>
<td>C</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>HK</td>
<td>HKMA</td>
<td>G/C</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>ID</td>
<td>BI</td>
<td>G</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>ID</td>
<td>KSEI</td>
<td>C</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>JP</td>
<td>BOJ/NET JGB Service</td>
<td>G</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>JP</td>
<td>JASDEC</td>
<td>C</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>KR</td>
<td>KSD</td>
<td>G/C</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>MY</td>
<td>BNM</td>
<td>G/C</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>PH</td>
<td>BTr</td>
<td>G</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>PH</td>
<td>PDTC</td>
<td>G/C</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>SG</td>
<td>MAS</td>
<td>G</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>SG</td>
<td>CDP</td>
<td>C</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>TH</td>
<td>TSD</td>
<td>G/C</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>VN</td>
<td>VSD</td>
<td>G/C</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

To be confirmed
5. Roadmap for cross-border STP of bond settlement infrastructures by harmonizing message flows and standardizing message items including numbering and coding

<table>
<thead>
<tr>
<th>Message and IT perspective</th>
<th>Other perspective including legal and market practices shown in this document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-border STP ready satisfying all conditions shown here including ISO20022 adoption from message and IT perspective</td>
<td>Cross-border STP ready satisfying all conditions shown here including practical perspective</td>
</tr>
<tr>
<td>Cross-border STP ready adopting international standard shown here including ISO15022 except ISO 20022 adoption from message and IT perspective</td>
<td>Cross-border STP ready from legal perspective</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Not ready but scheduled</th>
<th>Not ready but scheduled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not clear and need to be confirmed</td>
<td>Not clear and need to be confirmed</td>
</tr>
<tr>
<td>Not ready yet</td>
<td>Not ready yet</td>
</tr>
</tbody>
</table>

---

Government Bond (cross-border STP readiness)

<table>
<thead>
<tr>
<th>CSD</th>
<th>2014</th>
<th>2016</th>
<th>2018</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Messages</td>
<td>Other issues</td>
<td>Messages</td>
<td>Other issues</td>
</tr>
<tr>
<td>BN</td>
<td>AMBD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CN</td>
<td>CCDC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HK</td>
<td>HKMA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>BI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JP</td>
<td>BOJ</td>
<td>Y (2016)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KH</td>
<td>NBC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KR</td>
<td>KSD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA</td>
<td>BOL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PH</td>
<td>BTr</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SG</td>
<td>MAS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TH</td>
<td>TSD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VN</td>
<td>VSD</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To be confirmed
### Corporate Bond (cross-border STP readiness)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BN</td>
<td>AMBD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CN</td>
<td>CSDCC-SH CH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HK</td>
<td>HKMA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>KSEI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JP</td>
<td>JASDEC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KH</td>
<td>CSX</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KR</td>
<td>KSD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA</td>
<td>LXS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MM</td>
<td>MSEC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MY</td>
<td>BNM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PH</td>
<td>PDTC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SG</td>
<td>CDP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TH</td>
<td>TSD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VN</td>
<td>VSD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To be confirmed

### Cash Settlement System (cross-border STP readiness)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BN</td>
<td>AMBD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CN</td>
<td>PBOC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HK</td>
<td>HKMA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>BI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JP</td>
<td>BOJ (2016)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KH</td>
<td>NBC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KR</td>
<td>BOK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA</td>
<td>BOL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MM</td>
<td>CBM (2017)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MY</td>
<td>BNM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PH</td>
<td>BSP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SG</td>
<td>MAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TH</td>
<td>BOT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VN</td>
<td>SBV</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To be confirmed
Roadmap of participants of bond market infrastructures

- Same sort of survey will be made for the sell side and buy side (brokers, dealers, custodian, and correspondent banks)
- Each financial institution is expected to inform current situation of adoption of ISO standards (ISO 15022, ISO 20022, ISIN including allocation, BIC, character code set, and communication protocol) in each economy in ASEAN+3.

A transaction flows of bond issuance and subsequent settlement

This part is presented just for brainstorming discussion purpose.
Bond Issuance and subsequent Settlement

<table>
<thead>
<tr>
<th>Case</th>
<th>Issuer</th>
<th>Depository</th>
<th>Investor</th>
<th>Cash settle</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TH</td>
<td>TH</td>
<td>TH</td>
<td>THB</td>
</tr>
<tr>
<td>2</td>
<td>TH</td>
<td>TH</td>
<td>TH</td>
<td>JPY</td>
</tr>
<tr>
<td>3</td>
<td>TH</td>
<td>TH</td>
<td>JP</td>
<td>THB</td>
</tr>
<tr>
<td>4</td>
<td>TH</td>
<td>TH</td>
<td>JP</td>
<td>JPY</td>
</tr>
<tr>
<td>5</td>
<td>TH</td>
<td>JP</td>
<td>TH</td>
<td>THB</td>
</tr>
<tr>
<td>6</td>
<td>TH</td>
<td>JP</td>
<td>TH</td>
<td>JPY</td>
</tr>
<tr>
<td>7</td>
<td>TH</td>
<td>JP</td>
<td>JP</td>
<td>THB</td>
</tr>
<tr>
<td>8</td>
<td>TH</td>
<td>JP</td>
<td>JP</td>
<td>JPY</td>
</tr>
</tbody>
</table>

Conditions and possible cases
① Investors are located in a different economy from issuer.
② Underwriter is a participant of depository and located in the same economy with the depository.

Bond Issued in Thailand, THB denominated, intermediated by Global Custodian, Investor in Japan (case 3)
Bond Issued in Thailand, THB denominated, intermediated by JASDEC, DVP in Thailand (case 3)

Issuer

Issuer agent

Trading/Contract

Issuing Request

TSD

JASDEC Account

Matching Account Transfer

Payment Request

Payment Confirmation

Fund settlement Bank (Issuer agent)

BOT

Fund settlement Bank (Issuer)

FX Notification

Payment Notification

Issuer agent

Bond Issued in Thailand, THB denominated, DVP facilitated by JASDEC in Japan (case 4)

Issuer

Issuer agent

Trading/Contract

Issuer Request

TSD

JASDEC Account

Matching Account Transfer

Fund settlement Bank (Issuer agent)

FX Notification

Payment Notification

BOJ Fund settlement Bank (Issuer)
Bond Issued in Japan, THB denominated, Underwriter in Japan
DVP facilitated by JASDEC in Japan (case 7)

Issuer

Issuer agent

Trading/Contract

Issuing Request

Underwriter

Underwriter

Matching
Account
Transfer

Correspondent
Bank (Investor)

BOT

Fund settlement

Correspondent
Bank (Issuer agent)

Fund settlement Bank (Issuer agent)

Fund settlement Bank (Issuer agent)

Request Payment

Paymen
Fx Notification

Broker?

Market (Japan)
TSE Pro Bond

JASDEC

Local Cust.

Fund settlement Bank (Issuer agent)

Fund settlement Bank (Investor)

Fund settlement Bank (Investor)

BOJ

Fund settlement

Bond Issued in Japan, Underwriter in Japan
DVP leaded by JASDEC in Japan (case 8)

Issuer

Issuer agent

Trading/Contract

Issuing Request

Underwriter

Underwriting/Matching

Payment
Settlement
Confirmation

Correspondent
Bank (Issuer agent)

Correspondent
Bank (Issuer agent)

Request Payment

Payment (FX) Notification

BOJ

Fund settlement

Fund settlement Bank (Issuer agent)

Fund settlement Bank (Issuer agent)

Fund settlement Bank (Issuer agent)

Fund settlement Bank (Issuer agent)
Bond Issued in Japan, THB denominated, Underwriter in Japan DVP facilitated by JASDEC in Japan (case 8)

Issuer

Trading/Contract

Issuing Request

Underwriter

Japan

Possible example (need to be checked)

Broker

Matchin
g Account
Transfer

JASDEC

Local
Cust.

Investor

Issuer agent

Thailand

Fund settlement
Bank (Issuer)

Correspondent Bank
(Underwriter)

BOT RTGS

PvP

BOJ RTGS

Payment Request

Payment Notification

BOJ

JPY Pay-in

Correspondent Bank
(Underwriter)

Fund settlement
Bank

Issuer

Bond Issued in Thailand, Fund settled by BOJ and BOT PVP (case 3)

Issuer

Trading/Contract

Issuing Request

Underwriter

Japan

Possible example (need to be checked)

Broker

Matchin
g Account
Transfer

JASDEC

Local
Cust.

Investor

Issuer agent

Thailand

Fund settlement
Bank (Issuer)

Correspondent Bank
(Underwriter)

BOT RTGS

PvP

BOJ RTGS

Payment Request

Payment Notification

BOJ

JPY Pay-in

Correspondent Bank
(Underwriter)

Fund settlement
Bank

Issuer

Issuer

Issuing Request

Underwriter

TSD Participant

TSD

JASDEC Account

Matchin
g Account
Transfer

Payment Request

Payment Notification

TSD

JPY Pay-in

Correspondent Bank
(Underwriter)
Questionnaire

• Questionnaire will be sent to you soon and hopefully be checked by members and experts.

• Could you make comments on the questionnaire by the end of March, please?
• ADB Secretariat Team will revise and send it to members and experts around middle April.

• The answer is expected to be returned by the middle of May.

• ADB Secretariat Team will compile it and report the result at the 16th ABMF SF2.
Preaching to Buddha

Draft of reference DVP Flow

Key Elements to be discussed

1. Transferring settlement instruction from upstream system to PSMS
2. Forwarding Instruction to sell and buy sides, then affirmed by both sides. Also, enter settle instruction when there is no transfer from upstream system
3. Matching method and items
4. Settlement Matching
5. Transferring matched results from PSMS to CSD system
6. Forwarding neither sell side nor buy side
7. Locking bond
8. Transferring cash settlement instruction
9. Forwarding the instruction and affirmation from buy side
10. Cash Settlement
11. Cash Settlement Confirmation
12. Cash Settlement Confirmation
13. Bond Settlement
14. Bond Settlement Confirmation
15. Bond Settlement Confirmation
16. Affirmation
17. Cash Settlement
18. Cash Settlement Confirmation
19. PSMS
20. PSMS
21. Custodian
22. Custodian
23. PSMS
Possible key elements

1. Transferring settlement instruction from upstream system to PSMS
2. Forwarding Instruction to sell and buy sides, then affirmed by both sides. Also, enter settle. Instruction when there is no transfer from upstream system
3. Matching method and items
4. Settlement Matching Notice
5. Transferring matched results from PSMS to CSD system
6. Forwarding the result neither sell side nor buy side
7. Locking bond
8. Transferring cash settlement instruction
9. Forwarding the instruction and affirmation from buy side.
10. Cash settlement (transfer fund from buy side to sell side)
11. Cash settlement confirmation to sell side and buy side
12. Cash settlement confirmation to CSD system
13. Bond settlement
14. Bond settlement confirmation

Possible Key elements (message flow)

A. Messages between Bond market infrastructures (BMIs) and their participants
   2. Forwarding Instruction to sell and buy sides, then affirmed by both sides. Also, enter settle. Instruction when there is no transfer from upstream system
   4. Settlement Matching Notice
   6. Forwarding the result neither sell side nor buy side
   8. Transferring cash settlement instruction
   9. Forwarding the instruction and affirmation from buy side.
   11. Cash settlement confirmation to sell side and buy side
   14. Bond settlement confirmation

B. Messages between BMIs
   1. Transferring settlement instruction from upstream system to PSMS
   5. Transferring matched results from PSMS to CSD system
   12. Cash settlement confirmation to CSD system

C. Processes in BMIs
   3. Matching method and items
   7. Locking bond
   10. Cash settlement (transfer fund from buy side to sell side)
   13. Bond settlement
Points to be considered of each key element

1. Transferring settlement instruction from upstream system to PSMS
   ① Direct online linkage between upstream system and PSMS is desired where possible. Whereas, if a broker automates its system and has direct connection with custodians, custodian can enter settlement instructions to PSMS adding necessary information to trade data sent from the broker.

2. Forwarding Instruction to sell and buy sides, then affirmed by both sides. Also, enter settle. Instruction when there is no transfer from upstream system
   ① Settlement instruction data transferred from upstream infrastructure to the PSMS need to be forwarded to sell side or buy side since the party (broker) which entered the data to PSMS is different for the party (custodian) which is supposed to receive the forwarded data. Message items for settlement instructions need to be standardized.
   ② Maximum limit of time to return affirmation to CSD may better be agreed as a market practice. How to return the affirmation including message items need to be harmonized. The practices when data are not correct may also need to be harmonized.

Points to be considered of each key element

3. Matching method and items
   ① Pre-settlement matching for cross-border transactions need to be completed by S-1.
   ② Message items to be pre-matched need to be discussed. Integrity of data matched needs to be guaranteed. Also, adoption of tolerance matching needs to be discussed and harmonized.
   ③ Status control such as matched, unmatched, and mismatched needs to be harmonized.
   ④ Both central matching and local matching for PSMS need to be accepted.
   ⑤ Using post dated transaction of CSD system instead of developing PSMS may need to be discussed.

4. Settlement Matching Notice to sell side and buy side
   ① Message items for settlement matching notice need to be standardized.
Points to be considered of each key element

5. Transferring matched results from PSMS to CSD system
   ① Message items of matched results may need to be standardized when PSMS and CSD are operated in different platform.
   ② Processes such as queuing function and partial settlement when balance of bond in sell side account is insufficient need to be harmonized.

6. Forwarding the result neither sell side nor buy side
   ① Since the participants of PSMS and CSD are same custodians, it may not be necessary to forward matched results transferred from PSMS to either sell side or buy side.

7. Locking bond
   ① Ideal way of DVP settlement is that bond and fund are settled simultaneously. But, when CSD system and RTGS system are operated in different platforms, it is not realistic to settle securities leg and cash leg simultaneously from technological perspective. Therefore, firstly, traded bond needs to be locked (earmarked) by debiting from seller’s account and securing in a neutral account, then transfer fund from buyer’s account to seller’s account.
   ② When locking bond of sell side, legal status such as who owns the bond as well as how it is processed such as blocking and earmarking may need to be discussed and harmonized.

8. Transferring cash settlement instruction
   ① Message items of cash settlement transactions from CSD to RTGS need to be standardized. Message items for the settlement instruction need to be standardized.

9. Forwarding the instruction and affirmation from buy side.
   ① Cash settlement instruction transferred from CSD to RTGS need to be forwarded to buy side of participant for affirmation. How to send back affirmation including maximum time limit of affirmation (market practice) needs to be harmonized. Queuing when balance of cash account of buy side is insufficient needs to be provided. Message items for settlement instructions need to be standardized.

10. Cash settlement (transfer fund from buy side to sell side)
    ① Settlement processes when balance is insufficient need to be harmonized.
Points to be considered of each key element

11. Cash settlement confirmation to sell side and buy side
   ① Whether the cash settlement confirmation is necessary or not need to be decided.
   ② Message items for settlement instructions need to be standardized. Latest cash balance need to be included to the message items.

12. Cash settlement confirmation to CSD system
   ① Message items for settlement instructions need to be standardized.

13. Bond settlement
   ① After completing cash settlement, locked bond is to be credited to buy side account. DVP settlement is to become final.

14. Bond settlement confirmation
   ① Completing notice of DVP settlement will be sent to sell side and buy side. Message items for settlement confirmation need to be standardized.

Thank you so much
Possible roadmap for the implementation of cross-border STP by developing bond market infrastructures in ASEAN+3
(Preliminary draft image)

A preliminary draft of possible roadmap for the implementation of cross-border STP by harmonizing message flows and by standardizing message items including numbering and coding in ASEAN+3 is shown as follows.

Current status of cross-border STP in ASEAN+3 as of January 2014 is to be shared by ABMF SF2 members and experts.
Possible roadmap predicting each status of cross-border STP in ASEAN+3 as of January 2016, 2018, and 2020 is shown as well.

Current status of cross-border STP in each economy is shown based on the information obtained from members and experts.
Possible roadmap showing the statuses of cross-border STP in the region in January 2016, 2018, and 2020 is predicted by ADB consultant based on the information.

<table>
<thead>
<tr>
<th>Color</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>Cross-border STP ready</td>
</tr>
<tr>
<td>Blue</td>
<td>Cross-border STP ready with conditions</td>
</tr>
<tr>
<td>Yellow</td>
<td>Not ready but scheduled</td>
</tr>
<tr>
<td>Orange</td>
<td>Not clear and need to be confirmed</td>
</tr>
<tr>
<td>Red</td>
<td>Not ready yet</td>
</tr>
</tbody>
</table>
1. Message flow harmonization

① RTGS
Real time gross settlement is used for both bond settlement and cash settlement.

② DVP
Delivery versus payment is secured.

③ Central Bank Money
Central bank money is used for cash settlement.

④ STP
In order to implement straight through processing (STP), data are transferred from pre-settlement matching system to cash settlement system through securities settlement system.

⑤ Affirmation and Notification
Quality of data transferred and processed is confirmed when the data are entered by different party. Also, results of processes in infrastructures are informed to participants appropriately.

⑥ PS-Matching
Pre-settlement matching is automated by pre-settlement matching system (PSMS). Other than PSMS, pre-settlement matching by forward dated data entry on S-1 is available.
<table>
<thead>
<tr>
<th>Inst. Name of Bond Settlement System</th>
<th>Inst.</th>
<th>Message flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSD</td>
<td>Name of Bond Settlement System</td>
<td>RTGS</td>
</tr>
<tr>
<td>CN</td>
<td>CCDC</td>
<td>CBGS</td>
</tr>
<tr>
<td>CN</td>
<td>CSDCC</td>
<td>MNS</td>
</tr>
<tr>
<td>CN</td>
<td>SHCH</td>
<td>SHCH-SSS</td>
</tr>
<tr>
<td>HK</td>
<td>HKMA</td>
<td>CMU</td>
</tr>
<tr>
<td>ID</td>
<td>BI</td>
<td>BI-SSSS</td>
</tr>
<tr>
<td>ID</td>
<td>KSEI</td>
<td>C-BEST</td>
</tr>
<tr>
<td>JP</td>
<td>JASDEC</td>
<td>BETS</td>
</tr>
<tr>
<td>KR</td>
<td>KSD</td>
<td>SSS/SAFE+</td>
</tr>
<tr>
<td>MY</td>
<td>BNM</td>
<td>RENTAS SSTS</td>
</tr>
<tr>
<td>PH</td>
<td>BTr</td>
<td>BTr-ROSS</td>
</tr>
<tr>
<td>PH</td>
<td>PDTC</td>
<td>PDTC Depository</td>
</tr>
<tr>
<td>SG</td>
<td>MAS</td>
<td>MEPS plus</td>
</tr>
<tr>
<td>SG</td>
<td>CDP</td>
<td>DCSS</td>
</tr>
<tr>
<td>TH</td>
<td>TSD</td>
<td>PTI</td>
</tr>
<tr>
<td>VN</td>
<td>VSD</td>
<td>VSD-BES</td>
</tr>
</tbody>
</table>
2. International Standard for message items of Securities Settlement System (SSS)

① ISO15022
   ISO15022 is adopted for the messages related to bond settlement

② ISO20022
   ISO20022 is adopted for the messages related to bond settlement

③ ISIN (adoption)
   ISIN is adopted (full membership of NNA exists)

④ ISIN (allocation)
   ISIN is allocated within 24 hours after issuance and notified to members within the day

⑤ BIC
   BIC can be used. This include conversion by using table with proprietary codes.

⑥ Character code set
   Unicode (UTF-8) is adopted.

⑦ Communication protocol
   TCP/IP is adopted as communication protocol

⑧ Inauguration current system
   Inauguration year of current bond settlement system

⑨ Reconstruction period
   Plausible go-live year of reconstruction based on the assumption of ADB Consultant for ABMF SF2
## International Standard for message items of Securities Settlement System (SSS)

<table>
<thead>
<tr>
<th>CSD</th>
<th>Name of Bond Settlement System</th>
<th>Inst.</th>
<th>Standardization of Message items (SSS)</th>
<th>System renewal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>ISO15022</td>
<td>ISO20022</td>
</tr>
<tr>
<td>CN</td>
<td>CCDC</td>
<td>G/C</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>CN</td>
<td>CSDCC</td>
<td>MNS</td>
<td>G/C</td>
<td>N</td>
</tr>
<tr>
<td>CN</td>
<td>SHCH</td>
<td>SHCH-SSS</td>
<td>C</td>
<td>Y</td>
</tr>
<tr>
<td>ID</td>
<td>KSEI</td>
<td>C-BEST</td>
<td>C</td>
<td>Y</td>
</tr>
<tr>
<td>KR</td>
<td>KSD</td>
<td>SSS/SAFE+</td>
<td>G/C</td>
<td>N</td>
</tr>
<tr>
<td>PH</td>
<td>PDTC</td>
<td>PDTC Depository</td>
<td>G/C</td>
<td>N</td>
</tr>
<tr>
<td>SG</td>
<td>MAS</td>
<td>MEPS plus</td>
<td>G</td>
<td>Y</td>
</tr>
<tr>
<td>SG</td>
<td>CDP</td>
<td>DCSS</td>
<td>C</td>
<td>N</td>
</tr>
<tr>
<td>VN</td>
<td>VSD</td>
<td>VSD-BES</td>
<td>G/C</td>
<td>N</td>
</tr>
</tbody>
</table>
3. International Standard for message items of Cash Settlement (RTGS) System

① ISO15022
   ISO15022 is adopted for the messages related to bond settlement

② ISO20022
   ISO20022 is adopted for the messages directly related to bond settlement.

③ BIC
   Business identifier code is adopted for financial institution identification.

④ Character code set
   Unicode (UTF-8) is adopted for character code set.

⑤ Communication protocol
   TCP/IP is adopted for communication protocol.

⑥ Inauguration current system
   Inauguration year of current cash settlement system

⑦ Reconstruction period
   Plausible go-live year of reconstruction
### International Standard for message items of Cash Settlement (RTGS) System

<table>
<thead>
<tr>
<th>Operator</th>
<th>Name of the System</th>
<th>ISO messages</th>
<th>BIC</th>
<th>Char. Code set</th>
<th>Commun. protocol</th>
<th>Overall</th>
<th>System renewal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>ISO15022</td>
<td>ISO20022</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CN</td>
<td>PBOC</td>
<td>N</td>
<td>Y (2014)</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Apr 2002</td>
</tr>
<tr>
<td>HK</td>
<td>HKMA</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Dec 1996</td>
</tr>
<tr>
<td>KR</td>
<td>BOK</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Apr 2009</td>
</tr>
<tr>
<td>PH</td>
<td>BSP</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>1995/Dec 2002</td>
</tr>
<tr>
<td>SG</td>
<td>MAS</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Dec 2006</td>
</tr>
<tr>
<td>TH</td>
<td>BOT</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Dec 2001/2012</td>
</tr>
<tr>
<td>VN</td>
<td>BIDV</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>2010</td>
</tr>
</tbody>
</table>
4. Others

① Account structure
   Omnibus account is allowed.

② FX control
   Foreign exchange control does not exist.

③ Cash control
   Cash control does not exist.

④ WHT for non-residents
   Withholding tax for non-residents is exempt.
<table>
<thead>
<tr>
<th></th>
<th>CSD</th>
<th>Name of Bond Settlement System</th>
<th>Inst.</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Account structure</td>
</tr>
<tr>
<td>CN</td>
<td>CCDC</td>
<td>CBGS</td>
<td>G/C</td>
<td>N</td>
</tr>
<tr>
<td>CN</td>
<td>CSDCC</td>
<td>MNS</td>
<td>G/C</td>
<td>N</td>
</tr>
<tr>
<td>CN</td>
<td>SHCH</td>
<td>SHCH-SSS</td>
<td>C</td>
<td>N</td>
</tr>
<tr>
<td>HK</td>
<td>HKMA</td>
<td>CMU</td>
<td>G/C</td>
<td>Y</td>
</tr>
<tr>
<td>ID</td>
<td>BI</td>
<td>BI-SSSS</td>
<td>G</td>
<td>Y</td>
</tr>
<tr>
<td>ID</td>
<td>KSEI</td>
<td>C-BEST</td>
<td>C</td>
<td>Y</td>
</tr>
<tr>
<td>JP</td>
<td>BOJ</td>
<td>BOJ-NET JGB</td>
<td>G</td>
<td>Y</td>
</tr>
<tr>
<td>JP</td>
<td>JASDEC</td>
<td>BETS</td>
<td>C</td>
<td>Y</td>
</tr>
<tr>
<td>KR</td>
<td>KSD</td>
<td>SSS/SAFE+</td>
<td>G/C</td>
<td>N</td>
</tr>
<tr>
<td>MY</td>
<td>BNM</td>
<td>RENTAS SSTS</td>
<td>G/C</td>
<td>Y</td>
</tr>
<tr>
<td>PH</td>
<td>BTr</td>
<td>BTr-ROSS</td>
<td>G</td>
<td>Y</td>
</tr>
<tr>
<td>PH</td>
<td>PDTC</td>
<td>PDTC Depository</td>
<td>G/C</td>
<td>Y</td>
</tr>
<tr>
<td>SG</td>
<td>MAS</td>
<td>MEPS plus SGS</td>
<td>G</td>
<td>Y</td>
</tr>
<tr>
<td>SG</td>
<td>CDP</td>
<td>DCSS</td>
<td>C</td>
<td>Y</td>
</tr>
<tr>
<td>TH</td>
<td>TSD</td>
<td>PTI</td>
<td>G/C</td>
<td>Y</td>
</tr>
<tr>
<td>VN</td>
<td>VSD</td>
<td>VSD-BES</td>
<td>G/C</td>
<td>Y</td>
</tr>
</tbody>
</table>
5. Roadmap for cross-border STP of bond settlement infrastructures by harmonizing message flows and standardizing message items including numbering and coding

<table>
<thead>
<tr>
<th>Message and IT perspective</th>
<th>Other perspective including legal and market practices shown in this document</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-border STP ready satisfying all conditions shown here including ISO20022 adoption from message and IT perspective</td>
<td>Cross-border STP ready satisfying all conditions shown here including practical perspective</td>
</tr>
<tr>
<td>Cross-border STP ready adopting international standard shown here including ISO15022 except ISO 20022 adoption from message and IT</td>
<td>Cross-border STP ready from legal perspective</td>
</tr>
<tr>
<td>Not ready but scheduled</td>
<td>Not ready but scheduled</td>
</tr>
<tr>
<td>Not clear and need to be confirmed</td>
<td>Not clear and need to be confirmed</td>
</tr>
<tr>
<td>Not ready yet</td>
<td>Not ready yet</td>
</tr>
</tbody>
</table>
## Government Bond (cross-border STP readiness)

<table>
<thead>
<tr>
<th>CSD</th>
<th>2014</th>
<th>2016</th>
<th>2018</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Messages</td>
<td>Other issues</td>
<td>Messages</td>
<td>Other issues</td>
</tr>
<tr>
<td>BN</td>
<td>AMBD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CN</td>
<td>CCDC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HK</td>
<td>HKMA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>BI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JP</td>
<td>BOJ</td>
<td>Y (2016)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KH</td>
<td>NBC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KR</td>
<td>KSD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA</td>
<td>BOL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PH</td>
<td>BTr</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SG</td>
<td>MAS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TH</td>
<td>TSD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VN</td>
<td>VSD</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Corporate Bond (cross-border STP readiness)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Messages</td>
<td>Other issues</td>
<td>Messages</td>
<td>Other issues</td>
</tr>
<tr>
<td>BN</td>
<td>AMBD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CN</td>
<td>CSDDC/SHCH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HK</td>
<td>HKMA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>KSEI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JP</td>
<td>JASDEC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KH</td>
<td>CSX</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KR</td>
<td>KSD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA</td>
<td>LSX</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MM</td>
<td>MSEC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MY</td>
<td>BNM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PH</td>
<td>PDTC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SG</td>
<td>CDP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TH</td>
<td>TSD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VN</td>
<td>VSD</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Cash Settlement System (cross-border STP readiness)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Messages</td>
<td>Other issues</td>
<td>Messages</td>
<td>Other issues</td>
</tr>
<tr>
<td>BN AMBD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CN BOC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HK HKMA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ID BI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JP BOJ</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KH NBC</td>
<td></td>
<td></td>
<td>(2016)</td>
<td></td>
</tr>
<tr>
<td>KR BOK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA BOL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MM CBM</td>
<td></td>
<td></td>
<td>(2017)</td>
<td></td>
</tr>
<tr>
<td>MY BNM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PH BSP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SG MAS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TH BOT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VN SBV</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Outline of ASEAN+3 Bond Market Infrastructures and Activities of
ASEAN+3 Bond Market Forum Sub-forum 2 (ABMF SF2)
March 2014 (draft)

1. Salient points of survey results of ABMF SF2 and some implication from them are reported herein after. Implementation of cross-border STP is one of the most important objectives of ABMF SF2. The forum started its activities in September 2010. The forum compiled phase 1 and phase 2 reports in April 2012 and March 2014, respectively.

2. The ABMF SF2 Members and Experts (ABMF SF2) discussed how to enhance regional STP of bond transactions from trade to settlement. The ABMF SF2 conducted a survey on delivery versus payment (DVP) flows and interest payment and redemption flows for government bond and corporate bond.

3. Based on the survey results, findings on (1) bond market infrastructures, (2) DVP flows, (3) interest payment flows, (4) message standards, (5) numbering and coding, (6) market practices and other issues, and (7) cross-border DVP flows, are explained. Fit and gap analyses of the DVP flows and interest payment flows were conducted to identify the similarities and differences of the flows aiming at future harmonization in the region. Messages, numbering and coding, and market practices are also discussed for future standardization and harmonization. Some characteristics of cross-border DVP flows such as additional messages to meet FX and cash controls in each economy are identified based on the survey results.

A  DVP Flow from Trade to Settlement

(Bond Market)

4. Most of bonds (both government and corporate bonds) are traded in OTC markets in ASEAN+3 (where bond markets exist). Significant volume of bonds are traded in exchange (order driven) markets only in KR and PH. Regarding bond trades, most of the trades are ordered and executed domestically. Post-trade matching systems and/or trade repository systems are not always connected with pre-settlement matching system and/or CSD systems.

(Clearing)

5. Central Counter-Party (CCP) is in general to be established in order to mitigate counterparty risk. CCPs have been established in some economies (CN, ID, JP, KR and MY) for bond trades. MY has just announced that Bursa Malaysia will have function as CCP. CN (SHCH) and JP (JSCC) are CCPs for OTC market. CN (CSDCC), ID (KPEI), KR (KRX), and MY (Bursa Malaysia) are for exchange market.

6. Followings are ASEAN+3 Government Bond Market Diagram and Corporate Bond Market Diagram, respectively.
Government Bond Market Diagram

Corporate Bond Market Diagram

NOTE:
- Exchange
- Exchange related
- Central Bank
- Central Bank related
- Government
- Government related
- Commercial Bank

Direct inter-system connection
Indirect connection. Trade data (bond settlement instructions) are entered to CSD by agent custodians.

* This diagram shows entities which are involved in major types of transactions.
** Retail bond market is not included in this diagram.
(Pre-settlement Matching)
7. In many markets, pre-settlement matching is conducted manually using telephone, facsimile, e-mail, etc. Both central matching and local matching are used as settlement matching for both government and corporate bonds.

(Bond settlement)

(Cash settlement)
9. Regarding government bonds, central bank money is used in all markets except in VN in ASEAN+3. DVP model 1 of BIS definition is available in these 9 markets. Commercial bank money can also be used in CN though the percentage to total settlement value is very low. Regarding corporate bonds, central bank money is used in 8 markets (CN, HK, JP, KR, MY, PH, SG, and TH). Commercial bank money is used in 4 markets (CN, ID, KR and VN). In CN, central bank money is mainly used but commercial bank money is used when bonds are settled in exchange related CSD.

B Interest Payment Flow
10. Interest payment is one of the most important corporate actions of bond issues. However, the interest payment flows differ economy by economy. Also, Interest Payment Flows and Related Entities for Government Bond and Corporate Bond are shown here.

(Paying agent)
11. Paying Agent (PA) of bond issuer for interest payment is generally a bank of the issuer delivering the interest to investor through account management agent (AMA). Regarding government bonds, central banks are PA of government in 7 economies (HK, ID, JP, KR, MY, SG, and TH) out of 10 economies which have bond markets in ASEAN+3. CSDs are the PA in three economies (CN, PH and VN). Two of the PA (PH and VN) are government or government owned PA. Regarding corporate bonds, commercial banks are PA of issuers in 7 economies (HK, JP, KR, MY, PH, SG and TH). CSDs are PA in 3 economies (CN, ID, and VN).

(Account Management Agent)
12. Account Management Agent (AMA) of bond holder (investor) for interest payment and redemption is a custodian in general. In other words, CSD participants are AMA of bond holders for both government bonds and corporate bonds.
(Tax Withholding Agent)

13. Tax Withholding Agent (TWA) is generally a bank required to deduct, withhold, and pay tax for interest payments and redemptions. Regarding government bonds, no WHT (withholding tax) is imposed in 4 economies (CN, HK, MY and VN). In JP and SG, only non-residents are exempt from WHT. TWAs in other economies are different economy by economy. Regarding corporate bonds, no WHT is imposed in 2 economies (HK and MY). No WHT is imposed only for non-residents in JP and SG. TWAs in other economies are different economy by economy.

(Information flow related to interest payment and entities involved to it)

14. Interest payment flow including flow of information necessary to transfer the interest from the issuer account to investor account including withholding tax payment is illustrated as follows. Entities related to the interest payment are different economy by economy. The list of them are also shown as follows.

Typical Interest Payment Flow

---

Diagram: Typical Interest Payment Flow

- **Bond Issuer Side**
  - Issuer
  - 3. Payment Request
  - 4. Payment Instruction

- **Paying Agent (PA)**
  - 2. Bondholders-list with Tax Data
  - 5a. Notification of Payment Details

- **CSD**
  - Cash Flow
  - Information Flow
  - 1. Bondholders-list with Tax Data
  - 5b. Notification of Payment Details

- **Bond Holder Side**
  - Bond Holder Investor
  - Account Management Agent (AMA) Custodian
  - 9. Interest Payment Confirmation

- **PA**
  - Issuer’s Account
  - 6. Cash Transfer
  - PA’s Account

- **Payment system**
  - 7. Interest Payment (net)

- **AMA**
  - CSD Participant’s / Settlement Bank Account
  - 8. Interest Payment

- **Tax Office**

---
15. When executing cross-border trade, FX and cash controls have been perceived as one of the key barriers in the region. During the ABMF SF2 market survey, many market participants addressed the need of deregulation of such controls to promote cross-border trade and settlement with improved availability of local currency (LCY). On the other hand, with changing regulatory demand and collateral landscape in recent years, demands for cross-border collateral and cross-border repo services have been increasing worldwide and in the ASEAN+3 economies as well. Under such circumstances, it is recommended that ABMF SF2 would study further about cross-border collateral and repo from technological perspective including current market practices, regulatory aspects and infrastructure. The study could also include linking CSDs in ASEAN+3 aiming at utilizing central bank money.
16. The survey results identified that LCY settlement is also one of the most important issues for implementation of cross-border STP in the region.

D Cross-border collateral and cross-currency repo

(Background)

17. Companies in ASEAN+3 are expanding their businesses globally, especially in ASEAN+3, and consequently their traffic of cross-border funds transfer in the LCYs in the region is growing. Naturally, financial institutions in the region are increasing their lending outside the economy in line with the growing regional business of their customers, and therefore it is becoming very important for them to have stable sources of funding in LCY other than their own currencies, for example, by making use of financial assets denominated in their own currencies that they have abundantly on their balance sheets. In addition, as more and more non-residents are investing in their own currency denominated bonds, there are growing business opportunities to offer their own currency custody services to customers of other economies. Furthermore, there is an increasing awareness among market participants that the new regulations related to OTC derivatives, for instance, are likely to increase the importance of market infrastructures that support flexible mobilization of LCY denominated bonds and other high-quality collateral assets.

(Cross-border collateral)

18. Some central banks in ASEAN+3 have been collaborating with other central banks to establish such a cross-border collateral arrangements, where a foreign central bank provides liquidity in its local currency against other currency denominated bonds to its counterparty financial institutions, using the foreign central bank as a custodian for receiving the bond collateral from those financial institutions. Some central banks have been working with other central banks in ASEAN+3 to establish such cross-border collateral arrangements.

19. With those arrangements, banks and financial institutions in the region will have additional sources of local currencies from local central banks in stressed funding conditions in local financial markets. That backstop will enable global financial institutions to manage their liquidity in each local currency more stably, which will in turn facilitate their stable lending to corporate customers in local currencies.

20. The cross-border collateral arrangements provide a liquidity backstop in times of stress. In that respect, market-based solutions for stable daily funding in foreign currencies are just as important as, or possibly more important than, those central bank arrangements.

(Cross-currency repo)

21. One idea supporting this is to link a securities settlement system in one country with a central-bank-operated payment system in another country. Another idea is to set up a cross-border link between securities settlement systems. With such cross-border links, market participants will be able to settle foreign-currency funding transactions against domestic collateral assets, known as cross-currency repos, in safe central bank money on a DVP basis. Further, with such links, local investors will have easier access through their local securities settlement system to foreign securities, which will help increase intra-regional securities investment in the long run.
E  Next phase of ABMF SF2
(Next Phase of ABMF Activities)

22. Considering the above observations and policy recommendations, the following are the suggestions ABMF SF2 to tackle as topics of the next phase.

1) Harmonization of Message Flows: To discuss best practices of message flows identifying commonalities and differences including underlying requirement of critical messages and to propose reference models of message flows where practical.

2) Standardization of Messages -- Migration to international Standard: To adopt ISO 20022 and ISIN as standard of ASEAN+3 to promote cross-border trade and settlement.

3) Harmonization of Market Practices: To make a plan of the harmonization of market practices where it would be effective and possible.

4) Study on Cross-border Collateral and Repo Services: To study the current market practices, related legal and regulatory aspects, and infrastructures, with an aim to identifying best practices and providing policy recommendations for the benefit of further development in the cross-border collateral and repo markets.

23. Initial candidates of Reference Model of DVP Flows are proposed as follows:

F  ABMF SF2 work plan (specific activities) during Phase 3

24. Harmonization of message flows by presenting Reference Model of DVP Flow

1) ABMF SF2 will propose Reference DVP Model(s) for both government bond and corporate bond settlement. The members and experts of ABMF SF2 will agree that the bond market infrastructure providers and operators in ASEAN+3 try to develop their bond market infrastructures in line with one of the reference models when they reconstruct/renew their systems.

2) Currently three candidates of Reference DVP Models of DVP flow are proposed through the discussions during the Phase 2 activities. The first model is central matching type with PSMS (pre-settlement matching system) model. The second model is also central matching type utilizing forward (future dated) transaction of CSD bond settlement system entering the transaction on S-1 as an alternative measure of automated PSMS. The third model is local matching type of DVP flow.
3) The reasons why the three models were chosen as the candidates for DVP flow were as follows:
(i) DVP flow can be categorized into two types of pre-matching, central matching and local matching; (ii) automated PSMS was ranked as top of wish list of many of global bond trade and settlement players based on the previous survey of ABMF SF2; (iii) local matching type of bond settlement systems are currently processing significant volume and value of bond transactions; (iv) Reference Model(s) of DVP Flow are in line with basic principles.

25. Standardization of message items
1) Input data items of following messages of DVP flow will be standardized compliant with ISO 20022.
   a) The message from upstream infrastructure to PSMS or CSD corresponding to settlement instruction message
   b) Affirmation message from participants to PSMS or CSD responding to the forwarded message from PSMS or CSD to the participants.
   c) Matched result from PSMS or CSD to participants
   d) Settlement confirmation message from CSD to participants
   e) Affirmation of cash settlement message from RTGS participants (buy side) to RTGS
   f) Cash settlement confirmation message from RTGS to RTGS participants

2) Generally, messages and their items are to be compliant with ISO 20022. However, more specific standardization of message items is expected to reduce un-ambiguity. As a starting point of standardization of message items, definition and interpretation of message items of settlement instruction will be standardized.
   ➢ Each message item will be categorized as mandatory or optional. Also, the definition and meaning of each item will be clarified and defined in line with ISO 20022 message definition.
   ➢ Regarding the case of third model (local matching), message items of settlement instruction from sell side or buy side will be standardized corresponding to a) and b) of the above.

3) Currently settlement and reconciliation related messages are chosen to be standardized based on ISO 20022. Since messages related to corporate actions including notification messages of interest payment (MT56x, seev.0xx) are also important, it may be necessary to discuss and standardize them.

26. Common rule on ISIN (International Securities Identification Number) allocation
1) Ten markets where bond markets are already developed in ASEAN+3 have NNA (National Numbering Agencies). However, the recommendation of ANNA (Association of National Numbering Agency) that NNAs should allocate ISINs within 24 hours following the request of issuance and also make the ISIN available to users at the same time is not necessarily implemented yet in some economies.
2) ISIN allocation flow and process from issuance to dissemination of bond to users will be surveyed. Based on the result, improvement and standardization of the process will be proposed as a policy recommendation to ASEAN+3 Finance Ministers and Central Bank Governors if any.

27. Survey on cross-border collateral & cross-currency repo
   1) Survey on cross-border collateral and cross-currency repo will be made on regulation, market practice, message flow, etc. Questionnaire for that purpose will be prepared cooperating with members and experts of ABMF SF2.
   2) Based on the survey results, current markets will be compared. Also, standardization of cross-border services of related business including possible policy recommendations will be discussed.

G Conclusions

28. The bond markets and infrastructures in the region are rapidly developing by adopting international standards and principles. However, the efforts toward harmonization and standardization of ASEAN+3 bond markets have just begun. Given large differences in the levels of economic and bond market development in the region, the task will not be easy. The related work is inevitably gradual and step-by-step. The further harmonization and standardization of cross-border STP for bond transactions in the region will be a major challenge. There are no obvious low-hanging fruits in such an endeavor. As such, SF2 will continue to foster a region-wide understanding of the benefits of more harmonized and standardized bond transactions. This unique initiative will create momentum to push the region toward deeper, more liquid, and more integrated bond markets.

29. ABMF is expected to continue to function as a platform to realize and institutionalize regionalism by helping formulate regional views and opinions into a common policy framework.

30. Finally, it should be noted that no part of the report represents the official views of any of the institutions that participated as ABMF members or provided experts. The ADB team comprising Shinji Kawai of ADB’s Office of Regional Economic Integration (ADB OREI), Seung Jae Lee (ADB OREI, currently Samson Securities), and Taiji Inui (ADB Consultant for ABMF SF2, NTT DATA Corporation) is responsible for the contents of the report. At the same time, ADB team needs to mention that no part of the report could be written without the insightful advice and comments with sufficient information by the members and experts of ABMF SF2. The team really appreciate the kind support and help of them.
15th ASEAN + 3 Bond Market Forum (ABMF) Meeting

Task Force 3: Cross Border Repo and Collateralized Financing
Eric Chng

18.3.2014

Overview

Agenda

• Global financing markets breakdown
• Asia financing segment and the collateral universe
• Tri-party collateralized lending definitions and process
• Impediments to intra-ASEAN + 3 cross border financing
• Task Force Initiative – Exploring a roadmap for Asian CSD
Global Financing Markets

- We start off by understanding the key composition of the global financing markets and its size today.
- What are the components within the financing markets which are key to the growth of tri-party repo?

Primary Versus Secondary Market Instruments

For tri-party collateralized lending, it is mainly equity and fixed income which are classified as primary assets. ETF’s and liquid asset-backed securities are also used as collateral. Equity is well-understood and falls outside of the scope of study. We will focus on the debt markets for this presentation.

- **Traded Instruments**
  - Equity
  - Asset-Backed Notes
  - Bonds
  - ETF
  - Instruments that have observable prices and liquidity. These instruments are ideal for use for either repo or collateral on secured financing channels
  - Liquid refinancing markets

- **Secondary Markets**
  - Syndicated Loans
  - Bilateral Loans
  - Clubbed Financing
  - Project Finance
  - Limited to non-existent secondary markets. Prices are not available on a constant basis. These financings could have assets, income or cash flows as part of their security package.
  - Complex Financing facility with collateral management highly customised
Global Financing Snapshot

- Total financing markets grew 4.91% from USD 9.855 trillion (2012) to USD 10.4 trillion in 2013. Although debt issuance fell by 7.01%, the loans market grew an exponential 28.66% from 2012 to 2013.
- Asia ex-Japan loans grew 15.72% correspondingly to USD 434 billion due to high levels of liquidity and yield-hungry lenders with available balance sheets.
- Debt are essentially listed instruments and can be part of collateralized financing whilst loans are less liquid from a secondary market trading perspective.
- In Asia, loans are illiquid due to limited pricing availability.

Source: Dealogic 2013

Issuance Trend (ASEAN+3 issuers)

- Bonds continue to dominate the new-issuance market for both ASEAN corporates and sovereign issuers.
- Bilateral and syndicated financing saw exponential growth. Ample liquidity have seen financiers push out the duration of loans up to 5 years with aggressive pricing.
- With increased liquidity in the offshore-RMB market, corporates have stepped up issuances of CNH bonds.

ASEAN Currency Breakdown (in domestic currency)

<table>
<thead>
<tr>
<th>Year</th>
<th>Bond (USD equivalent)</th>
<th>Loan (USD equivalent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>3,973,000,000</td>
<td>-</td>
</tr>
<tr>
<td>2011</td>
<td>3,973,000,000</td>
<td>400,000,000</td>
</tr>
<tr>
<td>2012</td>
<td>5,059,000,000</td>
<td>400,000,000</td>
</tr>
<tr>
<td>TOT</td>
<td>12,990,000,000</td>
<td>800,000,000</td>
</tr>
</tbody>
</table>

Source: BNY Mellon Internal Data compilation
Collateral and Tri-Party

- Defining the collateral universe
- Characteristics of acceptable collateral
- Tri-party process map

Definition of Collateralized Financing

Differences between outright Repo (DVP) and Collateralized Financing

- A Repo transaction is a simultaneous Sale and Buy back of the underlying security and hence, the security and the cash is transferred simultaneously. This is essentially a DVP arrangement.

- In a secured financing arrangement on Tri-Party, the Collateral movement and funding legs are two separate transactions hence requiring an FOP arrangement.

- Example: A Domestic Thai Government bond pledged as security against a wider pool of collateral for an alternative currency of funding. This requires a change in beneficial ownership Free of Payment as the funding leg is essentially a separate transaction.
Collateral – Key Characteristics

Conditions for collateral eligibility

• Pricing availability: Typically either a price feed from an exchange or pricing source or ability to obtain independent quotes.

• Liquidity of collateral instruments are critical as illiquid securities require a larger haircut hence affecting LTV.

• Price volatility affects the mark-to-market of the collateral package. Securities which are illiquid or volatile tend to require a higher haircut.

• Reference exchange rate for collateral valuation where the financing currency and underlying collateral package has a mismatch.

Typical Collateral Types

• Listed equities which tend to be domestic exchange-driven within Asia.

• Fixed income instruments which are liquid such as government bonds, corporate debts and supranational issuances.

• Commodities? Asia is highly commodities-driven. Gold is a likely candidate for collateralization as it is liquid and has benchmark prices for valuation.

Collateral Universe

- Equity is one of the most important asset classes for collateral financing globally outside of US markets.
- About 20% of global debt issuances are Asian-centric. There is a shortage of good quality fixed income collateral.
- What can be done to encourage a more liquid secondary Asian debt market?
Key Tri-Party Collateral Statistics
International Programme (Ex-United States)
USD 500 billion in balances

Tri-Party Collateral Management Flow

1. Agree deal with Collateral Provider and instruct BNYM
2. Deal Matched
3. Collateral Eligibility Screening Process
4a. Request additional collateral from Provider
4b. Deliver additional collateral to BNYM
5. Collateral Allocated
6a. Report
6b. Report
7. Process Loan
8. Provider receives loan
9. Deal Maturity
10. Return Collateral to Provider
11a. Return End of day report
11b. Reconciliation of end of day report
12a. End of day report
Impediments to Growth of Tri-Party Repo Markets

- Statistics have shown that repo and tri-party collateralized financings have seen exponential growth. Within Asia, the growth of secured financing and repo is largely driven by USD financing against Asian equities and fixed income assets.

- What are the key impediments to a liquid Intra-ASEAN + 3 financing market?

### Funding Leg

<table>
<thead>
<tr>
<th>Impediments</th>
<th>Current State</th>
<th>Considerations</th>
</tr>
</thead>
</table>
| Currency Barriers | G3 currency remains the major funding currency with USD being the major driver for Tri-Party Financing globally | • An Asian currency unit which represent ASEAN+3 as a major economic bloc.  
• A viable Asian currency which can replace USD as a base currency for cross pairs. |
| Exchange Rate Volatility | USD is the central currency for all Asian crosses. US driven policy has a liquidity impact within Asia. | • Can RMB be a proxy for international trade flow?  
• SGD / HKD are relatively non-restrictive, could these be a viable substitute? |

<table>
<thead>
<tr>
<th>Country</th>
<th>Prohibition of Offshore FX Trading for Investment</th>
<th>NDF Trading Availability</th>
<th>Repatriation Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>HK</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>ID</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>JP</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>KR</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>MY</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>PH</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>SG</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>TH</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>VN</td>
<td>Y</td>
<td>Y / N</td>
<td></td>
</tr>
</tbody>
</table>
Framework for further assessment

Study on Capital Flow

<table>
<thead>
<tr>
<th>Trade Flows</th>
<th>CN</th>
<th>HK</th>
<th>KR</th>
<th>SP</th>
<th>ID</th>
<th>MY</th>
<th>TH</th>
<th>PH</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HK</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KR</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>TH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>PH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FDI Flows</th>
<th>CN</th>
<th>HK</th>
<th>KR</th>
<th>SP</th>
<th>ID</th>
<th>MY</th>
<th>TH</th>
<th>PH</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HK</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KR</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>MY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>TH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>PH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Conditions

- The viability of an Asian currency as a base pair currency is dependent on the underlying real flows associated between countries within the region.
- The viability of such alternate currency would require removal of currency controls and restrictions to enable onshore and offshore transfers.
- Speculative flows associated with any key currency pair would be an issue that requires study.

Collateral Leg

<table>
<thead>
<tr>
<th>Impediments</th>
<th>Current State</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOP transfers</td>
<td>For domestic bonds, FOP transfers are not allowed. This prevents securities from acting as eligible collateral offshore.</td>
<td>Enabling a 3rd party to interface with domestic CSD with a managed allocation for FOP title transfers makes tri-party possible.</td>
</tr>
<tr>
<td>Nominee Account Structure</td>
<td>Not all domestic debt securities are held within a nominee account structure.</td>
<td>A central counterparty that manages all participants based on a nominee structure which makes off market transfer possible.</td>
</tr>
<tr>
<td>Tax Regimes for interest payments</td>
<td>Domestic and foreign ownership are subject to different withholding tax regimes. Securities borrower might need to manufacture interest payments at a loss.</td>
<td>A central counterparty that can maintain a tax exempt arrangement with relevant jurisdiction will help in promoting cross border collateral</td>
</tr>
<tr>
<td>Fungibility of securities clearing</td>
<td>Domestic clearing on a pure DVP basis prohibits use of such securities as collateral for tri-party financing.</td>
<td>A central counterparty for clearing and settlement would provide a different venue for listing and settlement.</td>
</tr>
<tr>
<td>Transaction cost of collateral movement</td>
<td>Each transfer of domestic securities has to be on a DVP basis, making funding and unwinding expensive.</td>
<td>Nominees structure makes off market collateral book transfer possible and significantly reduces costs of operations which is a major impediment.</td>
</tr>
<tr>
<td>Availability of Pricing sources</td>
<td>Lack of a Pan-Asian credit rating agency and limited trading on secondary markets for domestic issuances.</td>
<td>Set up a Pan-Asian credit ratings agency that can manage differences in accounting regimes and treatments. Is there an agent or a supranational provide credit enhancements to level the credit ratings between countries (eq credit-wrappers)?</td>
</tr>
<tr>
<td>Concentration Risk (domestic issuances)</td>
<td>Local domestic banks face concentration risks as they are committed to buying domestic issuances.</td>
<td>Allow banks from different domiciles to hold sovereign issuances from different countries and use these as liability base holdings. Credit quality and haircut issues needs to be resolved in light of differing credit ratings.</td>
</tr>
</tbody>
</table>
Areas for further study

• Explore a framework that encourages cross-border collateral acceptance and increase the pool of eligible securities.
• Overcome domestic bank-specific concentration risk by making a pool of cross border high quality collaterals available.
• Possible road map for alternatives to USD-driven financing.

Other Considerations

• Credit enhancements and the availability of a regional ratings agency?

Framework for Cross-Border Financing

The intermediary will establish an account with each underlying domestic CSD to create fungibility of domestic securities.

1a. Agree on collateral schedule
2. Agree on Loan Trade parameters
3. Instruct to receive domestic bonds as collateral
4a. Custodian notifies the intermediary to transfer securities from domestic CSD
4b. Settlement matching of both trade instructions
5. Domestic CSD effects transfer of securities into the intermediary's book
6. Tri-party manages collateral valuation and movement daily between custodians
7. Daily collateral management
8. Lodge collateral schedule
9. Agree on collateral schedule
10. Instruct to receive domestic bonds as collateral

Lender
Tri-Party Provider
Borrower

Custodian
Domestic CSD
Domestic CSD
Domestic CSD

Information Classification: Confidential
Framework for Access of Cross Border Investor Pools


The intermediary will establish an account with each underlying domestic CSD to create fungibility of domestic securities.


4b. Trade is confirmed. Confirm trade value and exchange rate. Sell domestic ccy and buy USD.

5. Trade is cleared and bonds are deposited.

Characteristics of Framework Entity

Funding Leg

- Bank capabilities for FX facilitation and USD clearing capabilities.
- Quota or bilateral arrangement with relevant central banks to remove FX restrictions for on-boarded clients within ASEAN+3.
- Be an independent entity which has the power to establish policies and best practices and be a thought leader for regional standards.

Collateral Leg

- Connectivity with identified domestic CSD.
- Special bilateral quota enabling FOP transfers between entity and domestic CSD.
- Defined book transfer, safekeeping and reporting capabilities between parties.
- Nominee structure as a custodian which can handle multi-asset classes to enable collateral management.
- Tri-Party systems capabilities and operational support for collateral movements.
- Ability to provide or to work with a partner to provide credit-enhanced structures.
Framework Implementation

Possible Development Roadmap

The collateral connectivity roadmap will provide a base for model testing driven mainly by G3 currencies on the funding leg. Over time, currency barriers can be studied and alternative funding currencies can be identified with the task force for parallel implementation.

Stage One - Pilot
• Identify a strategic partner for initial development of a limited test framework including Custody, Tri-Party Provider and Process outsourcing partner.
• Identify initial pool of CSD to establish links and invite limited participation to test the cross border tri-party process.

Stage Two - Expand
• Explore incorporation of a full scale intermediary or Asian CSD-type entity and establish full connectivity to expanded pool of participants.
• Expand tri-party programmes to domestic participants with limited international network as lenders and provide process enablement or outsourcing.
• Technology transfer where necessary.

Stage Three – Pan ASEAN + 3
• Connect all member countries and establish a true Pan-Asian network.
• Work on currency dimension – exploring the use of alternate Asian currency as funding currency.
• Work with central banks to liberalize FX movements cross border.
• Pan-Asian CSD can become an FX matching engine or provide position and limits monitoring.

Disclosure Page

BNY Mellon is a corporate brand of The Bank of New York Mellon Corporation and may also be used as a generic term to reference the corporation as a whole or its various subsidiaries. Products and services may be provided by various branches, subsidiaries and joint ventures of The Bank of New York Mellon, an entity which is supervised and regulated by the New York State Department of Financial Services and the Federal Reserve and authorised by the Prudential Regulation Authority. The Bank of New York Mellon, London branch is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. The Bank of New York Mellon, Hong Kong branch is subject to regulation by the Hong Kong Monetary Authority. The Bank of New York Mellon, Australia Branch is subject to regulation by the Australian Prudential Regulation Authority and is exempt from holding an Australian Financial Services License and is regulated by the New York State Banking Department under the New York Banking Law which is different from Australian laws. BNY Mellon has various other branches in the Asia-Pacific Region which are subject to regulation by the relevant local regulator in that jurisdiction. Details about the extent of our regulation by the Prudential Regulation Authority and other applicable regulators in the Asia-Pacific Region are available from us on request.

Material contained within this presentation is intended for the purpose of general information only. It is not intended to provide legal, tax, accounting, financial or investment advice on any matter, and is not to be used as such. No statement or expression is an offer, recommendation or solicitation to buy or sell any products or services mentioned. The information contained in this presentation is for use by wholesale clients only and is not to be relied on by retail clients. BNY Mellon assumes no liability whatsoever for any action taken in reliance on the information contained herein, or for direct or indirect damages or losses (including but not limited to, special, punitive, consequential or incidental damages or losses) resulting from use of this presentation, its content, or services.

This presentation is not intended for distribution to, or use by, any person or entity in any jurisdiction or country where such distribution or use would be contrary to local law or regulation. Any unauthorised use of material contained in this brochure is at the user’s own risk and any reproduction, distribution, republication and retransmission is prohibited unless the prior consent of BNY Mellon has been obtained.

©2014 The Bank of New York Mellon. All rights reserved
Contact Details

Eric Chng
eric.chng@brownmellon.com
Phone +65 66 32 01 20 (Direct)
Mobile +65 91 01 88 65
Bond Repo Market in Taipei, China

Kuei-Hua Wu
Financial Sector Specialist
OREI, ADB
18 March 2014

15th ASEAN+3 Bond Market Forum (ABMF) Meeting, Manila, Philippines

Bond Repo

- Classification
  - Trading counterparties
    - Central bank against primary dealers
    - Bond dealers against bond dealers
    - Bond dealers against customers
  
  - Underlying collaterals
    - GB, Corp. bond, bank debenture, International bond …etc, all are in dematerialized (book entry) format

  - Cash financing vs bond financing
Bond Repo

• Ordinary-collateral Repo
  - For cash financing (same as general collateral repo in US)
  - Local version of “Bond Repurchase/Resale Master Agreement” and other bond trading rules stipulates the rights and obligations of Repo transaction

• Designated-bond Repo
  - For security borrowing/lending (same as special repo in US)

GTSM and EBTS

• Role and main features of GTSM
  - Gre-Tai Securities Market (GTSM), a self-regulatory organization, provides electronic bond trading system (EBTS) for interdealers to trade GB outright, repo, and when issue trading
  - GTSM also provides other electronic trading system for interdealers to trade fixed income derivatives like bond forwards, bond options
  - Empowered by Securities exchange law, GTSM drafted and promulgated Repo master agreement and related bond trading rules endorsed by Financial Supervisory Commission
Repo Master Agreement

- A transaction in which the buyer pays a purchase price to the seller and the seller delivers bonds to the buyer, and also stipulate that, **on the expired date**, the buyer shall resell and deliver the underlying bonds to the seller.

- Taipei District Court shall be the competent court should any dispute occurs between trading counterparties.

Main Features of Repo Master Agreement

- Prior to the RP Resale Date, **ownership of the underlying bonds resides in the buyer**, and the buyer may sell the bonds delivered by the seller to another party.

- If the seller fails to pay funds to the buyer on the resale date, **the buyer may dispose of the underlying bonds in the market**.
  - If disposal price is lower than originally resale price, the buyer can claim differences from the seller.
Who gets Coupon?

- Being legally entitled to the underlying collateral, RP buyer should receive coupon of the collateral bond.
- However, as the seller has committed to buy it back at a fixed price in the future, the seller retains the risk on the collateral as interest rate rises or bond issuer defaults. To satisfy the seller, in practice:
  - In Europe/US, under the Global Master Repurchase Agreement (GMRA) of ICMA, the buyer agrees to pay seller amount equivalent to income payment received on the collateral (manufactured coupon).
  - In Taipei, the master agreement stipulate that the repo maturity date shall fall due before coupon paying date so that the seller can get the coupon.

GB Clearing and Settlement

- Depository:
  - Depository of GB goes to Central Bank.
  - Depository of Non-Government bonds (e.g. Corp. bonds) goes to Taiwan Depository Clearing Corporation (TDCC).
- Clearing/settlement of Government bond:
  - After GTSM’s multilateral netting clearing process, settlement banks proceed bonds settlement via their GB accounts at Central Bank.
  - 16 GB settlement bank with around 1,700 branches.
Settlement of GB Trading

Notes:
1. The buyer inputs the message of bidding or trading.
2. GTSM informs the buyer of netting balance after clearing.
3. Left: The buyer deposits the amount of net debit balance.
   Right: The seller informs CGSS System of the securities to be delivered.
3.1 CGSS System transfers securities position from the seller’s settlement bank account into GTSM’s settlement bank account.
4. Settlement Bank A transfers funds through CIFS.
5. CIFS Debits Bank A’s reserve account A.
   5.1 Left: CIFS informs Bank A of debiting its reserve account A.
      Right: CIFS informs GTSM-EBTS of debiting Bank A’s reserve account A.
6. Upper: GTSM informs CIFS to transfer funds into Bank B’s reserve account A.
   Lower: GTSM informs CGSS System to transfer securities position.
6.1 CGSS System transfers securities position from GTSM’s settlement bank account to the buyer’s settlement bank account.
7. Left: CGSS System informs the buyer of the settlement of securities; Right: CIFS credits Bank B’s reserve account B.
   7.1 Left: CIFS informs the GTSM-EBTS of crediting Bank B’s reserve account A.
      Right: CIFS informs Bank B of crediting its reserve account A.
   7.2 Settlement Bank B informs the seller of the settlement of funds.
Bond Repo
(Bond dealers against customers)

- Repo between bond dealers and customers (e.g. individual, Corporates)
  - Transaction does not go through EBTS
  - Bond dealers have to submit Repo info such as rate, trading volume and tenor to GTSM for disclosing
  - For individual repo buyers who don't hold bond accounts at settlement banks conduct Repo with bond dealers, individuals get repo trade certificates from settlement banks
  - Meanwhile, seller's collateral bonds are blocked by settlement banks at the interest of buyers until resale funds got paid from sellers (bond dealers) at expired date (cost efficiency)

Repo (Over-the-counter)

- OTC Repo transactions are far more than inter-dealer's EBTS Repo

Date: 10 Jan 2014/Unit: TWD

<table>
<thead>
<tr>
<th>Currency</th>
<th>Repo/Repo Code</th>
<th>Bond Name</th>
<th>Days</th>
<th>Rate (%)</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>TWD</td>
<td>2-10</td>
<td>1.5000</td>
<td>0.2218</td>
<td>0.5588</td>
<td>30,248,431,165</td>
</tr>
<tr>
<td></td>
<td>11-20</td>
<td>0.7100</td>
<td>0.3800</td>
<td>0.5731</td>
<td>20,016,127,307</td>
</tr>
<tr>
<td></td>
<td>21-30</td>
<td>0.7400</td>
<td>0.3500</td>
<td>0.5930</td>
<td>6,204,957,419</td>
</tr>
<tr>
<td></td>
<td>31-60</td>
<td>1.5000</td>
<td>0.3500</td>
<td>0.5672</td>
<td>18,890,601,763</td>
</tr>
<tr>
<td></td>
<td>61-90</td>
<td>1.5000</td>
<td>0.4700</td>
<td>0.5721</td>
<td>2,667,848,547</td>
</tr>
<tr>
<td></td>
<td>91-180</td>
<td>0.6500</td>
<td>0.4500</td>
<td>0.5855</td>
<td>701,830,806</td>
</tr>
<tr>
<td></td>
<td>&gt;180</td>
<td>0.6000</td>
<td>0.4500</td>
<td>0.4663</td>
<td>235,574,237</td>
</tr>
</tbody>
</table>

Due of Repo: 82,210,983,470

Subtotal of Repo: 161,176,354,714

TWD Original of Repo

<table>
<thead>
<tr>
<th>Days</th>
<th>Rate (%)</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-10</td>
<td>0.6200</td>
<td>4,335,084,408</td>
</tr>
<tr>
<td>11-20</td>
<td>0.7650</td>
<td>420,567,323</td>
</tr>
<tr>
<td>21-30</td>
<td>0.7650</td>
<td>3,190,336,245</td>
</tr>
<tr>
<td>31-60</td>
<td>0.6900</td>
<td>1,365,532,416</td>
</tr>
<tr>
<td>61-90</td>
<td>0.6800</td>
<td>786,283,426</td>
</tr>
<tr>
<td>91-180</td>
<td>0.5900</td>
<td>450,000,000</td>
</tr>
</tbody>
</table>

Due of R-Repo: 9,902,445,968

Subtotal of R-Repo: 20,450,049,786

Total of TWD: 181,626,404,500
Designated Bond Repo (EBTS)

Date: 14 Jan 2014/Unit: NTD

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Days</th>
<th>Rate(%)</th>
<th>Amount (NTD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A02106</td>
<td>102央債甲6</td>
<td>due</td>
<td>0.5900</td>
<td>96,326,924</td>
</tr>
<tr>
<td>A02110</td>
<td>102央債甲10</td>
<td>1</td>
<td>0.5900</td>
<td>2,384,851,064</td>
</tr>
<tr>
<td></td>
<td></td>
<td>due</td>
<td>3,539,329,933</td>
<td></td>
</tr>
<tr>
<td>subtotal</td>
<td></td>
<td></td>
<td></td>
<td>5,924,180,997</td>
</tr>
<tr>
<td>A02111</td>
<td>102央債甲11</td>
<td>1</td>
<td>0.5900</td>
<td>2,779,168,975</td>
</tr>
<tr>
<td></td>
<td></td>
<td>due</td>
<td>3,444,214,858</td>
<td></td>
</tr>
<tr>
<td>subtotal</td>
<td></td>
<td></td>
<td></td>
<td>6,263,383,833</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>12,283,891,754</td>
</tr>
</tbody>
</table>

* Rates reflects fund borrowing rate minus bond lending fee
** Sometimes due to high demand for specific on-the-run bond, the bond
  lending fee might be driven up and pose a negative rate

Bond Outright vs Bond Repo Transactions

- Repos are more active vis-à-vis outright transactions

<table>
<thead>
<tr>
<th>Year</th>
<th>Outright</th>
<th>Ratio</th>
<th>Repo</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>323,579</td>
<td>33%</td>
<td>660,725</td>
<td>67%</td>
</tr>
<tr>
<td>2009</td>
<td>218,915</td>
<td>30%</td>
<td>499,025</td>
<td>70%</td>
</tr>
<tr>
<td>2010</td>
<td>237,266</td>
<td>31%</td>
<td>529,891</td>
<td>69%</td>
</tr>
<tr>
<td>2011</td>
<td>153,019</td>
<td>21%</td>
<td>562,596</td>
<td>79%</td>
</tr>
<tr>
<td>2012</td>
<td>103,807</td>
<td>16%</td>
<td>548,193</td>
<td>84%</td>
</tr>
<tr>
<td>2013</td>
<td>79,315</td>
<td>15%</td>
<td>439,634</td>
<td>85%</td>
</tr>
</tbody>
</table>
International Bond Transactions

• Foreign and domestic domiciled Corps. and institutions can issue foreign currency denominated international bonds (IB)
  – RMB IB bonds are increasing

• IB issuers can choose where to deposit their bonds in either TDCC or Clearstream/Euroclear
  – TDCC links with Euroclear/Clearstream

International Bond Issuance
### IB Issuance for Financial Institutional Investors only

<table>
<thead>
<tr>
<th>Bond Code</th>
<th>Issuer</th>
<th>Issuing Date</th>
<th>Maturity Date</th>
<th>Currency</th>
<th>Amount of Issuance</th>
<th>Coupon (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F01801</td>
<td>Bank Of China Limited, Hong Kong Branch</td>
<td>2013</td>
<td>2015</td>
<td>CNY</td>
<td>1,000,000,000</td>
<td>3.15%</td>
</tr>
<tr>
<td>F01701</td>
<td>Agricultural Bank Of China Hong Kong Branch</td>
<td>2013</td>
<td>2016</td>
<td>CNY</td>
<td>1,250,000,000</td>
<td>3.30%</td>
</tr>
<tr>
<td>F01601</td>
<td>Bank of Communications CO., Ltd. Hong Kong Branch</td>
<td>2013</td>
<td>2016</td>
<td>CNY</td>
<td>800,000,000</td>
<td>3.40%</td>
</tr>
<tr>
<td>F01802</td>
<td>Bank Of China Limited, Hong Kong Branch</td>
<td>2013</td>
<td>2016</td>
<td>CNY</td>
<td>1,000,000,000</td>
<td>3.25%</td>
</tr>
<tr>
<td>F01901</td>
<td>China Construction Bank Corporation Hong Kong Branch</td>
<td>2013</td>
<td>2016</td>
<td>CNY</td>
<td>2,000,000,000</td>
<td>3.25%</td>
</tr>
<tr>
<td>F01702</td>
<td>Agricultural Bank Of China Hong Kong Branch</td>
<td>2013</td>
<td>2018</td>
<td>CNY</td>
<td>250,000,000</td>
<td>3.60%</td>
</tr>
<tr>
<td>F01602</td>
<td>Bank of Communications CO., Ltd. Hong Kong Branch</td>
<td>2013</td>
<td>2018</td>
<td>CNY</td>
<td>400,000,000</td>
<td>3.70%</td>
</tr>
</tbody>
</table>

### IB Issuance for Individual Investors

<table>
<thead>
<tr>
<th>Bond Code</th>
<th>Issuer</th>
<th>Issuing Date</th>
<th>Maturity Date</th>
<th>Currency</th>
<th>Amount of Issuance</th>
<th>Coupon (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F01001</td>
<td>Kexim</td>
<td>2010</td>
<td>2013</td>
<td>USD</td>
<td>270,000,000</td>
<td>2.65%</td>
</tr>
<tr>
<td>F00903</td>
<td>BNP Paribas</td>
<td>2012</td>
<td>2015</td>
<td>AUD</td>
<td>200,000,000</td>
<td>4.30%</td>
</tr>
<tr>
<td>F01201</td>
<td>CHINATRUST COMMERCIAL BANK</td>
<td>2013</td>
<td>2016</td>
<td>CNY</td>
<td>1,000,000,000</td>
<td>2.90%</td>
</tr>
<tr>
<td>F01301</td>
<td>Far Eastern New Century Corporation</td>
<td>2013</td>
<td>2016</td>
<td>CNY</td>
<td>500,000,000</td>
<td>2.95%</td>
</tr>
<tr>
<td>F01302</td>
<td>Far Eastern New Century Corporation</td>
<td>2013</td>
<td>2016</td>
<td>JPY</td>
<td>5,000,000,000</td>
<td>1.26%</td>
</tr>
<tr>
<td>F01401</td>
<td>TECO Electric and Machinery Co., Ltd.</td>
<td>2013</td>
<td>2016</td>
<td>CNY</td>
<td>300,000,000</td>
<td>3.00%</td>
</tr>
<tr>
<td>F01501</td>
<td>Chang Hwa Bank</td>
<td>2013</td>
<td>2016</td>
<td>CNY</td>
<td>1,000,000,000</td>
<td>2.90%</td>
</tr>
<tr>
<td>F00803</td>
<td>Deutsche Bank Aktiengesellschaft</td>
<td>2013</td>
<td>2016</td>
<td>CNY</td>
<td>1,000,000,000</td>
<td>2.45%</td>
</tr>
<tr>
<td>F00804</td>
<td>Deutsche Bank Aktiengesellschaft</td>
<td>2013</td>
<td>2018</td>
<td>CNY</td>
<td>100,000,000</td>
<td>2.65%</td>
</tr>
</tbody>
</table>
## Repo (Over-the-counter)

Date: 10 Jan 2014/Currency: CNY

<table>
<thead>
<tr>
<th>Currency</th>
<th>Repo/R-Repo</th>
<th>Bond Code</th>
<th>Name</th>
<th>Days</th>
<th>Rate (%)</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Highest</td>
<td>Lowest</td>
</tr>
<tr>
<td>CNY</td>
<td>Original of</td>
<td>F01201</td>
<td>CTBC2013-1</td>
<td>31-60</td>
<td>2.4000</td>
<td>2.4000</td>
</tr>
<tr>
<td></td>
<td>Due of Repo</td>
<td>F01201</td>
<td>CTBC2013-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Original of</td>
<td>F01501</td>
<td>13CHB1</td>
<td>11-20</td>
<td>2.5000</td>
<td>2.5000</td>
</tr>
<tr>
<td></td>
<td>Due of Repo</td>
<td>F01501</td>
<td>13CHB1</td>
<td>31-60</td>
<td>2.6400</td>
<td>2.6400</td>
</tr>
<tr>
<td></td>
<td>Original of</td>
<td>F01801</td>
<td>P13BDCH1A</td>
<td>2-10</td>
<td>2.5000</td>
<td>2.5000</td>
</tr>
<tr>
<td></td>
<td>Due of Repo</td>
<td>F01801</td>
<td>P13BDCH1A</td>
<td>11-20</td>
<td>2.5000</td>
<td>2.5000</td>
</tr>
</tbody>
</table>

Subtotal of Repo: 25,432,196.85

Total of CNY: 25,432,196.85

---

Thank you

For further information: khwu@adb.org
Enhanced Comparative Analysis of Repo Markets in Nine ASEAN+3 Countries & Jurisdictions
(For the Purpose of Secondary Market Practice Harmonization under AMBIF)

March 17, 2014

Ryuichi Shiina, CFA
Advisor
International Affairs Division
Japan Securities Dealers Association

Contents
I. Comparative Table (A) : Inception, Trading Place, Repo Market Size
I -2. Comparative Table (B) : Type and Legal Characteristics
I -3. Comparative Table (C) : Sub-Categorization
I -4. Comparative Table (D) : Eligible Bonds, Trading Term Structure
I -5. Comparative Table (E) : Market Control
I -6. Comparative Table (F) : Participants, Market Openness to Foreigners
I -7. Comparative Table (G) : Main Liquidity Providers
I -8. Comparative Table (H) : Taxation Issues (1) “Sale and Purchase”
I -9. Comparative Table (I) : Taxation Issues (2) “Pledged”
I -10. Comparative Table (J) : Taxation Issues (3) “Borrowing and Lending”
I -11. Comparative Table (K) : Linkage with Global Standard
I -12. Comparative Table (L) : Protection Against Insolvency/ Close-Out Netting
I -13. Comparative Table (M) : Role of SROs

II. Challenges of Each Market

III. Fundamental Issues (Wrap Up)
1. The Repo market is basically OTC driven (natural result of bond transactions being conducted mainly on the OTC).

2. However, exchanges in China, Hong Kong, Korea, Philippines (PDEX) and Vietnam also provide a Repo trading facility, while Japan and Thailand have only an OTC Repo market.

3. The Volume of Repo transactions in Japan and China is extremely large due to the huge amount of outstanding government bonds.

4. Trading Data: Which countries require the Repo trade reporting? E.g., Japan (JSDA) obligates its Member firms to report various market data including Repo related transactions [except trading value data for Gensaki (“sale and purchase” based Repo in Japan)]. And, to ensure accurate comparability, we should verify the computation method of each country’s data.
**I -2. Comparative Table (B): Type and Legal Characteristics**

<table>
<thead>
<tr>
<th>Country</th>
<th>Type and Legal Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>China</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Sale and Purchase</strong> Type</td>
<td><strong>Pledged</strong> Type</td>
</tr>
<tr>
<td>China</td>
<td>Chinese market Repo</td>
</tr>
<tr>
<td></td>
<td>Turnover basis share: 1.4%</td>
</tr>
<tr>
<td></td>
<td>(A transfer of ownership occurs.)</td>
</tr>
<tr>
<td>Legal construction of exchange Repo is not clear.</td>
<td></td>
</tr>
<tr>
<td><strong>Hong Kong</strong></td>
<td>Classic Repo</td>
</tr>
<tr>
<td><strong>Indonesia</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>According to IER's survey of banks and securities companies conducted in May-June 2010. Sell/Repo: 70-75%, Classic: 20-25%. Classic: 20-25%.</td>
</tr>
<tr>
<td><strong>Japan</strong></td>
<td>Repo based upon the concept of &quot;sale and purchase&quot; is shifted to the revised regime (New Gensaki) in the year 2001. It complies with the global standard with adequate risk control measures, but with minor share of 20%</td>
</tr>
<tr>
<td><strong>Korea</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Malaysia</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Philippines</strong></td>
<td>[PDEx's Inter-Professional Repo Program]</td>
</tr>
<tr>
<td><strong>Thailand</strong></td>
<td>Most repos are in the form of &quot;classic Repo&quot; while &quot;sell &amp; buy back&quot; is not popular because there is no tax incentive.</td>
</tr>
<tr>
<td><strong>Vietnam</strong></td>
<td>All repos are in form of &quot;classic Repo&quot;</td>
</tr>
</tbody>
</table>

(B: Fact-findings & Implications)

There are three types of legal construction for a domestic Repo transaction: "sale and purchase", “pledged” and “borrowing and lending”.

![Diagram showing the types of repos and their characteristics](image-url)
Most of ASEAN+3 countries are trading “sale and purchase” type Repos, although this type of Repo is in the minority in China and Japan. This type consists of two sub-categories, namely a “Classic Repo” where the spot selling and forward buying are concluded in a single contract and a “Sell & Buy Back” which is composed of two independent spot selling and forward buying transactions. (China’s “outright Repo” is considered as Sell & Buy Back construction, however, in terms of contractual arrangements, it looks like the Classic Repo.)

1. Only mainland China is using “Pledged Repo” which falls under neither “sale and purchase” nor “borrowing and lending” construction. It is, in terms of economic effect, similar to a bank loan with securities as collateral.
2. Japan’s most widely used Repo is based on the legal construction of the “Borrowing and Lending type” Repo, called “Cash Collateralized Repo”. It is created by adding cash collateral to conventional bond borrowing and lending, but, in practice, is used as an alternative to the old Gensaki (that was subject to the transaction tax).

Uniquely Developed Repo Markets in China and Japan

3. The question is whether or not this fundamental difference in the legal constructions of the Repo becomes an impediment to harmonization when considering the secondary market under a future AMBIF sphere.
(C: Fact-findings & Implications)

1. Apart from the fundamental difference of the legal structure of the Repo transaction mentioned above, each country has various sub-categorizations in order to identify Repo characteristics.

2. Indonesia, Japan and Korea (for exchange Repo) use the distinction of Special Collateral (SC) transactions and GC (General Collateral) transactions, although it is unclear whether this distinction affects enormously the transaction process or market practices.

3. There would seem to be two major utilization of the Repo market; one is for financing between private entities and another is for market operations conducted by the central banks (Korea’s 3 sub-classifications – Institutional Repo, Customer Repo and BOK Repo / Thailand’s distinction between Bilateral Repo and Private Repo)

4. Tri-Party Repo is used by PDEx (Philippine) and KSD (Korea) while Japan is currently discussing the introduction of Tri-Party Repo, utilizing the function of JSCC as a provider of collateral management.
### I -4. Comparative Table (D): Eligible Bonds, Trading Term Structure

#### Eligible Bonds

<table>
<thead>
<tr>
<th>Country</th>
<th>Type of Interbank market</th>
<th>Year</th>
<th>Eligible Bonds</th>
<th>Trading Term Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>China (Case of Interbank market)</td>
<td>(Year 2012)</td>
<td></td>
<td></td>
<td>Divided into 11 types of term. Most of them are overnight, 7 days, 14 days</td>
</tr>
<tr>
<td></td>
<td>Policy bond</td>
<td>17.0%</td>
<td></td>
<td>81.2%</td>
</tr>
<tr>
<td></td>
<td>Gov. bond</td>
<td>32.0%</td>
<td></td>
<td>21.2%</td>
</tr>
<tr>
<td></td>
<td>Central bank bill</td>
<td>10.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MTNs</td>
<td>10.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hong Kong</td>
<td>No restriction</td>
<td></td>
<td></td>
<td>No restriction</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Government bond and Corporate bond</td>
<td></td>
<td></td>
<td>Minimum 3 days, maximum 3 years, average 1 month</td>
</tr>
<tr>
<td>Japan</td>
<td>Short-term government securities such as FIs, FIs, T-bills, Corporate bearing KBill, CPs, CDs and overseas issued CPs.</td>
<td>(Only data regarding borrowing and lending type Repos - cash collateralized Repo - is available)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Monthly data for Sept 2013)</td>
<td></td>
<td>ON (80.4%), Open-end (0.02%), Others (19.6%)</td>
</tr>
<tr>
<td>Korea</td>
<td>[OTC Repo] Short-term government securities (Government bond 46.5%, Special Bond 23.0%, Financial Bond 15.1%, MSB: 8.8%, Corporate Bond (with BBB or higher): 6.5%, Municipal Bond 0.4%, ETF 0.8%, CPs are also possible)</td>
<td>(Only data regarding borrowing and lending type Repos - cash collateralized Repo - is available)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>[Exchange Repo] 8 different tenors (ON, 3D, 7D, 14D, 21D, 60D and 90D)</td>
<td>(Only data regarding borrowing and lending type Repos - cash collateralized Repo - is available)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td>Specification oflena securities, private debt securities, negotiable instrument of deposit, banker’s acceptance, and any other types of financial instruments as may be specified by BNM.</td>
<td></td>
<td></td>
<td>The maximum tenure of Repo is 365 days.</td>
</tr>
<tr>
<td>Philippines</td>
<td>Limited to Government bonds for the time being with criteria set on issue size and liquidity.</td>
<td></td>
<td></td>
<td>IP-Repo are “term repos”. “In last active year 2011, volume share by tenor: ON 25%, 1W 15%, 21D 10%</td>
</tr>
<tr>
<td>Thailand</td>
<td>Thai Baht denominated (Government, and investment grade corporate bonds). Most of collateral used is short-term paper (Central bank bills 75%, Government bond 25%, State owned enterprise bond 0.3%)</td>
<td></td>
<td></td>
<td>Overnight accounted for approx. 35%</td>
</tr>
</tbody>
</table>
| Vietnam | Government bonds, Municipal bonds (legally acceptable, but in reality, they are rarely used) | | | Repo term is ranging from 2 days to 180 days, consists largely of 7 week term (47%)

#### Trading Term Structure

<table>
<thead>
<tr>
<th>Country</th>
<th>Eligible Bonds</th>
<th>Trading Term Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Policy bond 17.0%</td>
<td>Pledged Repo: 81.2%</td>
</tr>
<tr>
<td></td>
<td>Gov. bond 32.0%</td>
<td>Overnight Repo: 66.2%</td>
</tr>
<tr>
<td></td>
<td>Central bank bill 10.0%</td>
<td>7D: 21.2%</td>
</tr>
<tr>
<td></td>
<td>MTNs 10.0%</td>
<td>14D: 7.3%</td>
</tr>
<tr>
<td></td>
<td>Total 100%</td>
<td>35.5%</td>
</tr>
</tbody>
</table>

---

**D: Fact-findings & Implications**

1. Eligible Bonds for the Repo transactions consist mainly of public bonds such as government bonds (from short-term instruments to medium-term bonds), bank bills, etc.
2. Japan and Korea include CPs and other corporate bonds in the eligible instruments (although it is not certain whether such non-public instruments are actively used).
3. Japan include overseas issued CPs in the eligible category while Thailand designates foreign currency denominated bonds as eligible. Provided, however, it is not clear whether instruments issued by foreign issuers are also eligible.
4. As for the tenor, it seems that an Overnight basis Repo is overwhelmingly utilized in China, Japan, Korea and Thailand. In the case of Philippines, other tenors are also utilized. (The most surprisingly is the 1 month Repo which has the largest share of the market.)
### Comparative Table (E):

<table>
<thead>
<tr>
<th></th>
<th>Market Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Management of Interbank market Repos is same as for the Interbank market for bonds. NAFMII as SRO is managing the domestic [and foreign] institutional investors in coordination with three authorities, namely the People’s Bank of China, CEFTS and CCDC.</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Each participant manages by itself.</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Jointly managed by Bank Indonesia (BI), the Indonesian Securities Inter-Dealer Association, and the Indonesian Fixed-Income Dealer Association. BI has established provisions for secondary market trading of SBI notes under repurchase agreements (Repo). The Government launched a Master Repurchase Agreement (MRA) in 2005. The MRA is the benchmark for repurchase transactions, which are covered by HIMDASUN rule as a market operator for government bond trading. Bapepam-LK (currently OJK) has not specifically regulated the bond repurchase market yet; however, it accommodated accounting treatment for issuers and/or securities companies who trade government bond repo and reverse Repo using MRA.</td>
</tr>
<tr>
<td>Japan</td>
<td>As being conducted on the OTC market, each participant manages by itself. There are so many cases where securities company intermediate the deal. JSDA provides basic trading frameworks, rules and other market practices with the consensus of market participants. Bank of Japan regulates to a certain extent as settlement organization for JGBs.</td>
</tr>
<tr>
<td>Korea</td>
<td>[OTC Repo] Each participant manages by itself. [Exchange Repo] Managed by KRX, functioning as CCP.</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Bank Negara Malaysia (BNM)</td>
</tr>
<tr>
<td>Philippines</td>
<td>PDS provides Inter-Professional Repo Program. Under this program, Repos trading is conducted during Repo session of PDEs and settled in the PDTC Depository, respectively.</td>
</tr>
<tr>
<td>Thailand</td>
<td>Before 2006, Repo market was operated by Central Bank and private Repos are prevailing in recent years. However, volume of private Repo has significantly slowed down in late 2012 as the central bank implemented a 0.46% surcharge on deposits including Repo between banks and non-bank.</td>
</tr>
<tr>
<td>Vietnam</td>
<td>SBV for the open-monetary market. Hanot Stock Exchange for other transaction.</td>
</tr>
</tbody>
</table>

(E: Fact-findings & Implications)

1. There are 3 major aspects controlling markets: The first is the regulator control, the second is market operator control and the third is self-management in the OTC market.

2. Generally speaking, for the market operations using Repo, the central banks (or regulator) directly control the market. For the exchange-based Repo, the market operator controls. And, for OTC-traded Repo, the participants manage by themselves with a certain amount of support from SROs.
### I-6. Comparative Table (F):

**Participants, Market Openness to foreigners**

<table>
<thead>
<tr>
<th>Country</th>
<th>Participants</th>
<th>Market Openness to Foreigners</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>(Case of Interbank market) Starting with 16 commercial banks, now expanding to 2200 institutions (banks, securities companies, insurance companies, trusts, funds, non-banks)</td>
<td>Not Open for overseas investors, but foreign investors who are incorporated in China are allowed to participate in the Repo market (Currently there are about 30 participants.)</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>No restriction</td>
<td>Open</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Banks (for government bond). (Insurance companies and pension funds are prohibited from engaging in repo transactions based on KMK No. 424/KMK.06/2003)</td>
<td>Partially open?</td>
</tr>
<tr>
<td>Japan</td>
<td>Both domestic and overseas Institutional investors including corporations</td>
<td>Open</td>
</tr>
<tr>
<td>Korea</td>
<td>[OTC Repo] Institutional Investors Repos are open to financial institutions that hold securities accounts with KSD. Overseas participants should have an standing proxy in Korea. [Exchange Repo] Limited to KRX member firms</td>
<td>Open</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Both licensed FIs and non-financial institutions (NFIs) subject to the requirement that at least one principal to the Repo transaction must be licensed FI</td>
<td>n/a</td>
</tr>
<tr>
<td>Philippines</td>
<td>Participants as Repo Buyer Only: Trusts, mutual funds, pension funds, insurance companies, other qualified institutional investors. Participants as Repo Buyer &amp; Repo Seller: PDEx Dealer Members</td>
<td>n/a</td>
</tr>
<tr>
<td>Thailand</td>
<td>Primary dealers appointed by BOT (currently 13), FI (dealers), Institutional investor</td>
<td>Open for foreign investors who are resident in Thailand, but not opened for overseas investors</td>
</tr>
<tr>
<td>Vietnam</td>
<td>SBV and commercial banks (for the open-monetary market using T-Bills and government bonds with maturities of more than 1 year). Securities firms, commercial banks, and financial firms (through HNK’s bond system, using government bonds with maturities of more than 1 year).</td>
<td>Not open</td>
</tr>
</tbody>
</table>

**F: Fact-findings & Implications**

1. The most crucial point here is the openness of the Repo market to foreign investors. In this sense, Japan, Korea and Hong Kong have opened their markets to foreigners, while Vietnam has not yet allowed foreign investors to trade in Repo market. In China (Interbank market) and Thailand, the market is open to foreign investors who are incorporated or resident in the respective country, but not open for overseas investors.
<table>
<thead>
<tr>
<th>Country</th>
<th>Main Liquidity Providers</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>State-owned Commercial Banks 51.49%</td>
</tr>
<tr>
<td></td>
<td>Policy Banks 31.07%</td>
</tr>
<tr>
<td></td>
<td>Joint-stock Commercial Banks 13.62%</td>
</tr>
<tr>
<td></td>
<td>Others 3.82%</td>
</tr>
<tr>
<td></td>
<td>Funds takers are city banks, regional credit associations, regional banks</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>The cash lenders: Money market funds / Mutual funds / Treasury desks from banks / Corporate Insurance / Companies / Central Banks / Repo desk</td>
</tr>
<tr>
<td></td>
<td>The Bond lenders: Dealers, bond traders / Hedge funds / Proprietary trading desks / Repo desks</td>
</tr>
<tr>
<td>Indonesia</td>
<td>n/a</td>
</tr>
<tr>
<td>Japan</td>
<td>Bank of Japan (in case of open market operation)</td>
</tr>
<tr>
<td></td>
<td>In other case, investors of surplus position provide liquidity to investors of short of funds</td>
</tr>
<tr>
<td>Korea</td>
<td>n/a</td>
</tr>
<tr>
<td>Malaysia</td>
<td>BNM?</td>
</tr>
<tr>
<td>Philippines</td>
<td>Currently, there are 14 Repo sellers and 28 Repo buyers.</td>
</tr>
<tr>
<td></td>
<td>Repo Buyers were primarily Trust &amp; Pension funds</td>
</tr>
<tr>
<td>Thailand</td>
<td>Central Bank. PD</td>
</tr>
<tr>
<td>Vietnam</td>
<td>SBV (in case of open market operation)</td>
</tr>
<tr>
<td></td>
<td>In other case, investors of surplus position provide liquidity to investors of short of funds</td>
</tr>
</tbody>
</table>

**(G: Fact-findings & Implications)**

1. If Repo is used as a market operations tool, central bank is sole liquidity provider.
2. If Repo is used in the private sector, the surplus funds entities such as mutual funds, pension funds, etc. provides liquidity in the market.
## I -8. Comparative Table (H): Taxation Issue (1) “Sale and Purchase”

| Taxation Issue (1) –For Sale and Purchase Construction (Classic Repo’s case)– |
|---|---|---|---|---|
| Type of Repo | Transaction tax | Stamp Duty | Tax on return (Repo Difference) | Tax on Coupon Payment |
| China | Outright Repo* | Domestic juridical person (F.J.P) | No effect on profit tax (seller) | Not allowed |
| | Non-taxable | (Buyer) is treated as having the same nature and source for tax purposes as the original distribution | | Not allowed |
| Hong Kong | Classic Repo | Domestic juridical person (D.J.P) | No effect on profit tax (seller) | Not allowed |
| | Non-taxable | (Buyer) is treated as having the same nature and source for tax purposes as the original distribution | | Not allowed |
| | (except certain limited cases) | (Buyer) is treated as having the same nature and source for tax purposes as the original distribution | | Not allowed |

### (H: Fact-findings & Implications)

1. Please also refer to the details of the feedback papers to the questionnaire.
2. Taxation of Repo transactions should be discussed separately for each of 3 types of legal construction.
3. For the “sale and purchase” type Repo, five factors should be taken into account; [Regarding the transaction]
   - (1) Transaction Tax
   - (2) Stamp Duty
   - (3) Tax on the Repo difference (between return amount and initial amount)
   - (4) Tax on Coupon received during Repo term
   - (5) Tax on Interest on Margin Call Money
4. Another important viewpoint is to distinguish between domestic and cross-border transactions, and in the case of cross-border transactions (if possible), which party (bond buyer or seller) is resident and non-resident is important.
5. We begin our analysis with the “Sale and Purchase” type Repo. However, we limit ourselves to “Classic Repo” which prevails in this type of Repo.
6. First table refers to the cases of China’s outright Repo and Hong Kong’s classic Repo.
### 1-8. Comparative Table (H): Taxation Issue (1) “Sale and Purchase” continued

#### Taxation Issue (1) For Sale and Purchase Construction (Classic Repo’s case) ~ Continued

<table>
<thead>
<tr>
<th>Type of Repo</th>
<th>Transaction Tax</th>
<th>Stamp Duty</th>
<th>Tax on return (Repo Difference)</th>
<th>Tax on Coupon Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>Classic Repo</td>
<td>Tax on payment Coupon paid to B, Tax deducted from B is a legal entity</td>
<td>Subject to Corporate tax (Transaction between investors with different tax treatment)</td>
<td>Not allowed?</td>
</tr>
<tr>
<td>Japan</td>
<td>Classic Repo</td>
<td>Taxable (Abolished in 1999)</td>
<td>Not subject to withholding tax (subject to corporate tax)</td>
<td>(Bond Buyer: D.J.P.) Repo difference obtained by FJP is deemed interest income and not withheld (subject to corporate tax)</td>
</tr>
<tr>
<td></td>
<td>Non-taxable</td>
<td>Taxable</td>
<td>(Buyer) Corporate tax</td>
<td>(Buyer) Non-taxable (subject to Corporate Tax)</td>
</tr>
<tr>
<td>Korea</td>
<td>Classic Repo (National Repo)</td>
<td>Non-taxable</td>
<td>Bond Buyer subject to Withholding Tax and Corporate Tax</td>
<td>(Bond Buyer: F.J.P.) Repo difference obtained by FJP is deemed interest income and is not withheld (subject to Corporate Tax)</td>
</tr>
<tr>
<td></td>
<td>Cross-border Repo</td>
<td>Non-taxable</td>
<td>(Buyer) Returned corporate subject to W. Tax (preliminarily withheld) and Corporate Tax</td>
<td>(Buyer) Tax is either withheld in full or subject to Corporate Tax, depending upon the relationship of attribution of the income to the PE.</td>
</tr>
</tbody>
</table>

### (H: Fact-findings & Implications -continued-) 

1. The cases of Indonesia, Japan and Korea.
2. Transaction tax is levied in Indonesia. Japan also had a transaction tax until 1999, but then it was abolished.
3. Small stamp duty is levied in Japan.
4. Among 3 countries, only Japan adopts preferential tax measure for foreign investors (foreign juridical persons) in the taxation of Repo difference and coupon received.
5. Timing of taxation on Repo difference differs among 3 countries; Korea’s case is at the withholding level and corporate tax level while Japan’s case is at the corporate tax level only. Indonesia has different tax treatment.
### Taxation Issue (1) For Sale and Purchase Construction (Classic Repo’s case) — Continued 2

<table>
<thead>
<tr>
<th>Type of Repo</th>
<th>Taxation Issue (1)</th>
<th>Sale and Purchase</th>
<th>Type of Repo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Malaysia</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Taxation on Return (Repo Difference) & Tax on Coupon Payment

<table>
<thead>
<tr>
<th>Malaysia</th>
<th>Non-taxable</th>
<th>A final tax of 20% is applied to Repo interest, withheld by the Repo Seller from Repo Buyers at maturity, except only to Repo Buyers that are duly certified or chartered as Tax-Exempt Institutions.</th>
<th>F.J.P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>Special business tax of 0.01% applied for FI (reduced from 3.3% previously applied)</td>
<td>Subject to 1% W/H tax and lender is required to return full interest to the original owner of collateral. Lender can request for tax credit at the end of year. The coupon is not considered a tax base for SBT.</td>
<td>D.J.P</td>
</tr>
<tr>
<td>Vietnam</td>
<td>Not applied</td>
<td>Subject to 5% tax on Coupon/Interest. Individual investors are exempt from Interest tax when investing in government bonds.</td>
<td></td>
</tr>
</tbody>
</table>

#### Tax on Coupon Payment

<table>
<thead>
<tr>
<th>Malaysia</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### (H: Fact-findings & Implications —continued 2—)

1. In Philippines, tax treatments on Repo difference and coupon payment are almost the same as other countries adopting the classical Repo.
2. In Thailand, there exists transaction tax; namely the special business tax of 0.01% applied for financial institutions. In Thailand, the cross-border transaction is still not allowed.
3. In Vietnam, both transaction taxes and stump duties are not applied. For tax on return, it is subject to the corporate tax of 22% while the individual investors are also subject to the taxation at 20%. As for the tax on coupon payment, 5% tax is levied. Individual investors are exempt from interest tax when investing in government bonds. The cross-border transaction is still not allowed.
### I - 8. Comparative Table (H) - Taxation Issue (1) “Sale and Purchase” continued

#### Taxation Issue (1) – For Sale and Purchase Construction (Classic Repo’s case) – Continued

<table>
<thead>
<tr>
<th>Taxation Issue (1)</th>
<th>Domestic Transaction</th>
<th>Cross-Border Transaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bond Buyer: F.J.P</td>
<td>Bond Buyer: D.J.P</td>
</tr>
<tr>
<td><strong>China</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hong Kong</td>
<td>(Buyer)</td>
<td>(Buyer)</td>
</tr>
<tr>
<td></td>
<td>It is considered interest income, which may be subject to Profits Tax</td>
<td>It is considered interest income, which may be subject to Profits Tax</td>
</tr>
<tr>
<td>Indonesia</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Japan</td>
<td>(Buyer)</td>
<td>(Buyer)</td>
</tr>
<tr>
<td></td>
<td>Non-Withholding Tax (but subject to Corporate Tax)</td>
<td>Non-taxable</td>
</tr>
<tr>
<td>Korea</td>
<td>(Buyer)</td>
<td>(Buyer)</td>
</tr>
<tr>
<td></td>
<td>Subject to Withholding Tax (preliminary withheld) and Corporate Tax</td>
<td>Tax is either withheld in full or subject to Corporate Tax, depending upon tax treaty, existence of permanent establishment (PE) in Korea, and the relationship of attribution of the income to the PE.</td>
</tr>
<tr>
<td>Malaysia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>(Buyer)</td>
<td>(Buyer)</td>
</tr>
<tr>
<td></td>
<td>Subject to Corporate Income Tax</td>
<td>Interests on Margin Call are subject to Withholding Tax (preliminarily withheld) and Corporate Tax.</td>
</tr>
<tr>
<td>Vietnam</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>
## I-9. Comparative Table (I):
### Taxation Issue (2) “Pledged”

#### Taxation Issue (2) ~For Pledged Construction~

<table>
<thead>
<tr>
<th>Type of Repo</th>
<th>Transaction tax</th>
<th>Stamp Duty</th>
<th>Tax on return (Repo Difference)</th>
<th>Tax on Coupon Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Pledged Repo</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Buyer: F.J.P</td>
<td>Buyer: D.J.P</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>The underlying infrastructure in HK does not prohibit this kind of repo.</td>
<td>None</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Doesn’t exist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>Doesn’t exist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Korea</td>
<td>Doesn’t exist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td>Doesn’t exist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>Doesn’t exist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>Doesn’t exist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td>Doesn’t exist</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### (I: Fact-findings & Implications)

1. There is only China’s case.
### Comparative Table (I):

#### Taxation Issue (2) “Pledged” continued

<table>
<thead>
<tr>
<th></th>
<th>Taxation Issue (2) – For Pledge Construction – continued</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Domestic transaction</td>
</tr>
<tr>
<td>China</td>
<td>None</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>It may be subject to profits tax</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Doesn’t exist</td>
</tr>
<tr>
<td>Japan</td>
<td>Doesn’t exist</td>
</tr>
<tr>
<td>Korea</td>
<td>Doesn’t exist</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Doesn’t exist</td>
</tr>
<tr>
<td>Philippines</td>
<td>Doesn’t exist</td>
</tr>
<tr>
<td>Thailand</td>
<td>Doesn’t exist</td>
</tr>
<tr>
<td>Vietnam</td>
<td>Doesn’t exist</td>
</tr>
</tbody>
</table>

#### (I: Fact-findings & Implications – continued)

1.
2.
3.
### Taxation Issue (3) “Borrowing and Lending”

#### Table: Taxation Issue (3) “For Borrowing and Lending Construction”

<table>
<thead>
<tr>
<th>Country</th>
<th>Type of Repo</th>
<th>Stamp Duty</th>
<th>Tax on return</th>
<th>Tax on Coupon Payment</th>
<th>Interest on Margin Call Money</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Interest on Collateralized Cash</td>
<td>Bond Lending Fee</td>
<td>Bond Borrower Side</td>
</tr>
<tr>
<td>China</td>
<td>None</td>
<td></td>
<td>(Bond Borrower)</td>
<td>(Bond Lender)</td>
<td>(After receiving coupon, pays the equivalent amount to the Lender)</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Non-taxable (except certain limited cases)</td>
<td>(Bond Borrower)</td>
<td>(Bond Lender)</td>
<td>(After receiving coupon, pays the equivalent amount to the Lender)</td>
<td>(Bond Lender)</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Taxable</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Japan</td>
<td>Cash Collateralized Repo</td>
<td>Taxable</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>(OTC Bond Lending</td>
<td>Non-taxable</td>
<td>(Bond Borrower)</td>
<td>(Bond Lender)</td>
<td>(Bond Borrower)</td>
</tr>
<tr>
<td>Malaysia</td>
<td></td>
<td></td>
<td>(Bond Borrower)</td>
<td>(Bond Lender)</td>
<td>(Bond Borrower)</td>
</tr>
<tr>
<td>Philippines</td>
<td></td>
<td></td>
<td>(Bond Borrower)</td>
<td>(Bond Lender)</td>
<td>(Bond Borrower)</td>
</tr>
<tr>
<td>Thailand</td>
<td>SBL</td>
<td>Tax applied as same as other interest income</td>
<td>Included in calculation of corporate income tax</td>
<td></td>
<td>Subject to Corporate Income Tax</td>
</tr>
<tr>
<td>Vietnam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### (J: Fact-findings & Implications)

1. While it is clear that the bond borrowing and lending in Japan is used as a substitute for the Repo (in the sense of financing method), it is unclear whether this type of bond transaction is used as such in other countries.
### Linkage with Global Standard

<table>
<thead>
<tr>
<th>Country</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>New Master Agreement which NAFMII introduced at the beginning of 2013 by revising the then existing two master agreements. This new master agreement has a perspective of vying with the global standard by introducing such measures as daily mark-to-market, performance assurance mechanism, close-out netting, etc., thereby improving the risk control mechanism. Adoption of the GMRA is not on the agenda.</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>GMRA is utilized.</td>
</tr>
<tr>
<td>Indonesia</td>
<td>In 2010, Bapepam-LK (currently OJK), BI, and DPPC took the lead in introducing policy initiatives of creating a Global Market Repurchase Agreement (GMRA) Indonesian Annexes and act as facilitators for market players in developing the GMRA Indonesian Annexes. A standardized agreement in the form of GMRA Indonesian Annexes is expected to encourage the development of Repo transactions among all market participants. Market participants involved in this project are HSMASUN, BSI, KPEL, KSEI, Indonesia Securities Company Association, Custodian Bank Association, and other related associations in the market. Bapepam-LK Rule No. VIII.G.13: Accounting Treatment for Repurchase Agreement (REPO) Using Master Repurchase Agreement (MRA) governs the bond Repo market. Having said that, the majority of interbank Repo transactions continue to use bilateral agreements in lieu of a Global MRA Indonesia Annex.</td>
</tr>
<tr>
<td>Japan</td>
<td>A New Gensaki market that was introduced in 2001 provides for various risk control measures including haircut rules, margin call, etc. It allows also use of the globally standardized “Global Master Repo Agreement (GMRA)”.</td>
</tr>
<tr>
<td>Korea</td>
<td>Both OTC Repos and Exchange Repo are equipped with various risk control measures, thereby being conscious about the global standard. Especially, exchange Repo (KRX Repo) is based on the GMRA.</td>
</tr>
<tr>
<td>Malaysia</td>
<td>All Repo transactions must be subject to the Global Master Repurchase Agreement (GMRA) and the relevant Annex that specify all terms of the transaction, duties and obligations between the parties concerned.</td>
</tr>
<tr>
<td>Philippines</td>
<td>The PDEx Master Repo Agreement was crafted to align with global standards in risk management, incorporating daily MTM of repo-ed securities, daily valuation of repo obligation versus collateral obligation, daily margin call/margin release as applicable, marginal securities for price volatilities.</td>
</tr>
<tr>
<td>Thailand</td>
<td>GMRA is widely adopted with Thailand annex.</td>
</tr>
<tr>
<td>Vietnam</td>
<td>GMRA is being considered to apply to market.</td>
</tr>
</tbody>
</table>

(K: Fact-findings & Implications)

1. Hong Kong, Indonesia, Japan, Korea (exchange Repo only), Malaysia and Thailand allow a direct dependence on the GMRA. Other countries (China, Philippines) show also a certain degree of compliance with the global standard.

2. ..
<table>
<thead>
<tr>
<th></th>
<th>Protection Against Insolvency/ Close-Out Netting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>China</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Hong Kong</strong></td>
<td>For “Close-out Netting”, there is no specific legislation governing it by the HK Law. However, the provisions of this Close-out Netting are commonly included in master agreements (e.g. ISDA Master Agreement) that bind the market participants.</td>
</tr>
<tr>
<td><strong>Indonesia</strong></td>
<td>[There is a high possibility that the close-out netting is not yet legislated nor recognized as a Repo market practice in Indonesia.]</td>
</tr>
<tr>
<td><strong>Japan</strong></td>
<td>Yes, it exists. Both Gensaki (sale and purchase type Repos) and “Cash Collateralized Repo” are covered.</td>
</tr>
<tr>
<td><strong>Korea</strong></td>
<td>Yes, it exists. Both exchange Repo and OTC are covered.</td>
</tr>
<tr>
<td><strong>Malaysia</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Philippines</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Thailand</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Vietnam</strong></td>
<td></td>
</tr>
</tbody>
</table>

---

**L: Fact-findings & Implications**

1. Close-out Netting
### I -13. Comparative Table (M):

#### Role of SROs

<table>
<thead>
<tr>
<th>Country</th>
<th>Role of SROs</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>Introduction of New Master Agreement which improved the previous inadequate collateral system, barrier for SMEs and more consideration on changes in the legal environment.</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>SRO does not exist.</td>
</tr>
<tr>
<td>Indonesia</td>
<td>The Indonesia bond market has one market association called the Inter-Dealer Market Association for Government Securities (HIMDASUN). HIMDASUN holds a license as a market operator for government bonds with self-governing rules, such as membership, trading, surveillance, and master repurchase agreement rules. However, the market operator and self-governing rules functions of HIMDASUN are currently inactive.</td>
</tr>
<tr>
<td>Japan</td>
<td>JSDA provides separate rules for each of borrowing and lending of bond transaction and Gensaki transactions with relevant sample Master agreements.</td>
</tr>
<tr>
<td>Korea</td>
<td>KOFIA collects and discloses OTC institutional Repo and customer Repo transaction information (in real time). In addition, KOFIA provides a sample Master Agreement of Institutional Repo and Customers Repo transaction, respectively.</td>
</tr>
<tr>
<td>Malaysia</td>
<td>n/a</td>
</tr>
<tr>
<td>Philippines</td>
<td>Transactions under the PDS Inter-Professional Repo Program should comply with Inter-Professional Repo Rules. PDEs is the SRO for the fixed income securities secondary market.</td>
</tr>
<tr>
<td>Thailand</td>
<td>ThaiBMA played active roles in promoting market convention for private Repo e.g. The use of master agreement, calculation of interest margin, reference prices for MTM, etc.</td>
</tr>
<tr>
<td>Vietnam</td>
<td>n/a</td>
</tr>
</tbody>
</table>

(N: Fact-findings & Implications)

1. SROs demonstrate a certain limited role in the Repo market such as basic rule-making (master agreement, market practice, etc.).
II. Challenges of Each Market

<table>
<thead>
<tr>
<th>Challenges for Future Harmonization of Repo Market [under AMBIF]</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
</tr>
<tr>
<td>1. Access by overseas investors not yet allowed.</td>
</tr>
<tr>
<td>2. Migration toward the sale and purchase based Repo remaining</td>
</tr>
<tr>
<td>stagnant due to the market convention and avoidance of costs</td>
</tr>
<tr>
<td>related to the system change.</td>
</tr>
<tr>
<td>3. Taxation impeding the shift to a sale and purchase based</td>
</tr>
<tr>
<td>Repo.</td>
</tr>
<tr>
<td>Hong Kong</td>
</tr>
<tr>
<td>1. SRO does not exist.</td>
</tr>
<tr>
<td>2. Many Repos are conducted OTC.</td>
</tr>
<tr>
<td>There is difficulty to force the Repo parties to follow</td>
</tr>
<tr>
<td>certain standard terms and agreements.</td>
</tr>
<tr>
<td>Indonesia</td>
</tr>
<tr>
<td>So far, the GMRA Indonesian ANNEX has been difficult to</td>
</tr>
<tr>
<td>implement due to accounting and legal issues. Thanks to the</td>
</tr>
<tr>
<td>conclusion of Mini Master Repo Agreement by 8 banks in Dec.</td>
</tr>
<tr>
<td>2013, Indonesia now is ready for deepening its interbank</td>
</tr>
<tr>
<td>money market by using the standardized contract.</td>
</tr>
<tr>
<td>Japan</td>
</tr>
<tr>
<td>1. Migration toward the New Gensaki (sale and purchase based</td>
</tr>
<tr>
<td>Repo) remaining stagnant due to the market convention and</td>
</tr>
<tr>
<td>avoidance of costs related to the system change.</td>
</tr>
<tr>
<td>2. Corporate bonds are not well utilized as eligible bonds</td>
</tr>
<tr>
<td>for Repo transactions.</td>
</tr>
<tr>
<td>Korea</td>
</tr>
<tr>
<td>1. OTC Repo has no explicit linkage with the GMRA.</td>
</tr>
<tr>
<td>2. Trading volume of exchange Repo remains small.</td>
</tr>
<tr>
<td>Malaysia</td>
</tr>
<tr>
<td>n/a</td>
</tr>
<tr>
<td>Philippines</td>
</tr>
<tr>
<td>Clarification on application of documentary stamp tax for a</td>
</tr>
<tr>
<td>classic Repo.</td>
</tr>
<tr>
<td>Thailand</td>
</tr>
<tr>
<td>In the future, the private Repo base could be expanded to</td>
</tr>
<tr>
<td>non-residents. This might inject more liquidity and</td>
</tr>
<tr>
<td>strengthen the bond secondary market.</td>
</tr>
<tr>
<td>Vietnam</td>
</tr>
<tr>
<td>Market is new; only one type of Repo (classic Repo)</td>
</tr>
<tr>
<td>Defragmentation between Exchange market and Interbank market</td>
</tr>
<tr>
<td>GMRA not applying yet</td>
</tr>
</tbody>
</table>

III. Fundamental Issues (Wrap Up)

(Critical points to Be Discussed)

1. Basic difference in legal structure (“sale and purchase”, “Pledged” and “borrowing and lending”) of Repo transaction

Is it crucial for harmonized cross-border bond transactions? Does it create any difference in the resolution process in case of the insolvency of the counter-party? Is it relevant to the protection of investors? Does “relevant or not so relevant” depend upon the overall legal arrangement such as close-out netting, bankruptcy law, etc.? What is a practical way to start the cross-border Repo transactions in spite of the difference in the legal construction? How about the use of GMRA? What is the short-term and long & medium-term action to be taken?

2. Different Tax Treatments among Countries

Are there transaction tax and/or stamp duties? Are there taxes on Repo difference and coupon received that are levied at withholding level or corporate (income) tax level? Does tax preference measure exists for foreigners?

3. Availability of Repo Market to foreign investors

There must be two steps; the first step is political and the second step is technical.

First step relates to whether or not to grant foreign (overseas) investors access to the domestic bond market. Second step relates to whether or not to migrate to a more foreign investor friendly regime; changing the domestic legal construction of Repo transaction or starting reference to the GMRA, etc.

4. Protective Framework in Case of Insolvency of Repo Counter-Party

Is close-out netting available in each country’s legislation (e.g. bankruptcy law)? Repo is covered by such legislation?

5. Accounting Treatment of Repo to be Explored

6. Mutual recognition/of rules for the Repo market [under AMBIF]
Cross-border use of financial collateral: introduction to a questionnaire

Erwin Nierop
March 2014

Introductory remark

This presentation reflects the personal views of Erwin Nierop and not necessarily those of the European Central Bank, the Asian Development Bank, or any other party

Erwin Nierop may be contacted at the following e-mail address: erwin.nierop@ecb.europa.eu
Purpose of presentation

• ABMF Secretariat has prepared draft questionnaire on cross-border use of collateral
• Purpose of presentation is to introduce questionnaire and sound out whether questionnaire is expected to achieve its goals
• Participants to March 2014 ABMF meeting are kindly invited to make their views known before finalisation of questionnaire

Focus of presentation

• Different perspectives possible (compare other presentations)
• For example, operational perspective
• This presentation focus on two main perspectives
• First, legal aspects of taking, administration, and where necessary execution of financial collateral (in particular sovereign and corporate bonds) through repurchase agreements or pledge
• Second, different models for cross-border use of collateral
Content of presentation

- Cross-border use of collateral in EU
- Financial collateral
- Business case for cross-border collateral arrangements
- Legal techniques for establishment of collateral (in particular repo and pledge)
- Arrangements for cross-border use of collateral
- Measures supporting cross-border use of collateral
- Miscellaneous
- Proposed work plan

Cross-border use of collateral in EU

- See Jeju November 2014 presentation
- Steady increase
- International Central Securities Depositories (ICSDs), links between Securities Settlement Systems (SSS), remote access to SSS, TARGET2-Securities, Correspondent Central Bank Model (CCBM)
- Standard agreements, for example: Master Repurchase Agreement (MRA) of International Swap Dealers Association (ISDA), Global Master Repurchase Agreement (GMRA) of International Capital Market Association (ICMA), and European Master Agreement (EMA) of European Banking Association (EBA)
- Within European System of Central Banks (ESCB) mixed system accommodating repo and pledge
Collateral and financial collateral

- Collateral is a broad, generic notion and may cover all assets susceptible to secure fulfilment of obligations
- Financial collateral is usually restricted to bonds, equities, and other securities
- For Asian Bond Market Initiative (ABMI), sovereign and corporate bonds should obviously main point of focus
- Report will have to identify financial collateral in relevant jurisdictions and explore which types of financial collateral should be eligible for cross-border use

Eligible collateral

- Sovereign bonds
- Corporate bonds
- Two risks: (a) counterparty default, (b) bond issuer creditworthiness (for example: downgrading, default, insolvency)
- List of eligible collateral?
Business case

- EU experience shows steady increase of cross-border use of collateral
- Report should identify situation in relevant jurisdictions
- Asian Bond Market Initiative (ABMI) presupposes that establishment of arrangements for cross-border use of collateral is desirable
- However, efforts to this end should presumably be proportionate to goals to be achieved
- Report should therefore elaborate business case for establishment of arrangements
- Shortage of collateral domestically could, for example, underpin business case

Work methodology

- First, review of domestic situation in relevant national jurisdictions
- Second, comparative analysis of situation in relevant jurisdictions, probably leading to three groups of countries: green (no challenges to cross-border use of collateral, (ii) no major challenges, but nevertheless restrictions, (iii) impossibilities
- Third, recommendations
Two legs

• Leg 1: provision of credit in country A under agreement governed by law of country A
• Leg 2: provision of financial collateral under agreement governed by law of country A
• However, when financial collateral is mobilized on a cross-border basis, i.e. located in country B, law of country B may apply to taking, administration, and in particular execution of financial collateral

Legal techniques

• Usually repurchase agreements (repos) or pledge, but there may be other techniques such as pooling or earmarking
• Repos provide for transfer of full ownership, pledge for establishment of priority right
• Generally, repo is better than pledge, since in case of pledge there may be other priority rights (for example of tax authorities)
• Pledge may also be more complicated than repos in terms of establishment, administration, and execution of collateral
• However, if most relevant systems provide for pledge, it may be appropriate to build on existing arrangements and provide for pledge-based or mixed systems.
Repurchase agreement (repo)

- Name says it all: purchase and repurchase, buy and sell/buy back and sell back with intent to transfer ownership (although initial owner may become holder for new owner during duration of transaction thus avoiding physical transfer)
- In other words: a simple transaction governed by civil law
- But beware, some jurisdictions may consider repos in insolvency cases pledges in disguise/shams to detriment of other creditors and therefore legally invalid and unenforceable
- Adoption of legislation sanctioning validity and enforceability of repos for financial collateral, also in insolvency cases, may be desirable if not necessary (as was done in EU)

Pledge

- Pledge is classic instrument to establish security interest in form of priority right (i.e. no transfer of ownership, but usually separation from other assets from debtor until repayment of debt)
- As in case of repos, pledge is governed by civil law
- However, in case of insolvency there are usually two challenges: ranking and timing
- On ranking: there may be other parties with higher ranking priority rights (for example, tax authorities)
- On timing: execution may be dependent on authorization of liquidating authority and this may take time (6 to 12 months?)
Other techniques

• There may be other techniques than repo and pledge to take, administer, and if necessary execute financial collateral, for example pooling
• Participants to arrangement create pool of collateral in return for claim on pool
• This claim may be used to secure repayment of debt

Close-out netting

• Contractual provision in master repurchase agreements stipulating that in case of default all outstanding transactions may be terminated and calculated into one net position for payment to or from debtor (in case of insolvency leading to claim vis-à-vis bankrupt estate)
• Advantage: quick fix enhancing financial stability
Arrangements

• Report should identify present and possible future arrangements for cross-border use of collateral for which there are different, non-exclusive options
• International Central Securities Depositories (ICSDs)
• Links between Securities Settlement Systems (SSS)
• Remote access to SSS
• Recourse to Collateral Management Systems (CMS)
• Correspondent bank model (CBM)
• Links between SSS should be reviewed on legal soundness

Supporting measures

• Report will in all likelihood reveal challenges in different jurisdictions, particularly for pledge
• EU has addressed such challenges in two Directives for implementation in national jurisdictions (Settlement Finality Directive (SFD) and Financial Collateral Arrangements Directive (FCAD))
• This legal instrument does not exist in Asian context, but SFD and FCAD could perhaps be turned around into best practice recommendations in order to encourage national legislators to adopt the necessary provisions
Miscellaneous

• Does above overview cover all relevant topics or should it be extended?
• For example, should questionnaire and thus report address any other operational issues?
• For example, dematerialization, risk control measures, accounting issues, taxation, etc

Proposed work plan for 2014

• March: finalisation of questionnaire (ABMF Secretariat)
• April/May: preparation of answers to questionnaire (Addressees/respondents)
• June/July: preparation of first draft of report (ABMF Secretariat)
• August/September: consultations on first draft of report (ABMF Secretariat and selected parties)
• October: preparation of final version of report (ABMF Secretariat)
Thank you!

Questions and answers
1 KOREA Money Market & Repo
   About Repo & Regulation
2 KOREA Repo Market
3 KSD Repo Service
# Money Market

## Instruments for Short-term Financial Market

### Purpose
- To satisfy the market needs in the short-term financial market
- To boost flexibility of financial market → High liquidity

### Functions
- To transfer huge money
- To balance surplus & deficit in the market
- To encourage monetary policy
- To influence on short-term interest rates

## Instruments

<table>
<thead>
<tr>
<th>Cash borrower</th>
<th>Instruments</th>
<th>Cash lender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repo Seller</td>
<td>Repo</td>
<td>Repo Buyer</td>
</tr>
<tr>
<td>Call Loan</td>
<td>Call</td>
<td>Investor</td>
</tr>
<tr>
<td>CP issuer</td>
<td>CD</td>
<td>CP buyer</td>
</tr>
</tbody>
</table>

## What is Repo

### Definition
- Repo is a type of transaction in which a money market participant acquires immediately available funds by selling securities.
- And simultaneously agreeing to repurchase the same or similar securities after a specified time at a given price which typically includes interest at an agreed-upon rate

## Illustration

<table>
<thead>
<tr>
<th>Repo Purchase Date</th>
<th>Repo Repurchase Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repo Seller</td>
<td>Repo Buyer</td>
</tr>
<tr>
<td>Purchase Price</td>
<td>Repurchase Price</td>
</tr>
<tr>
<td>Purchased Securities</td>
<td>(Purchase Price + Interest)</td>
</tr>
</tbody>
</table>
Regulation

Two aspects of Repo

Legal Aspect

Sales of Securities

- Capital Market and Financial Investment Business Act (OTC Trading)
  - Supreme Court Ruling in 1988.03.22
  - Supreme Court Ruling in 1992.05.26

- Legal Title
  - Transferred from repo seller to repo buyer.
  - One party sells assets such as bonds to another while simultaneously agreeing to repurchase them on a future date at a specified price.

Economic Aspect

Secured Loan

- Repo Interest from Repo seller to Repo Buyer
- Income from Securities (Coupon Payment) Returned to the Seller
- Margin Maintenance
- Accounting Practice
  - Repo money → Current liabilities (repo seller) and Account receivable (repo buyer)
  - Repo securities are not reflected in balance sheet
- Tax Treatment
  - Repo is not seen as bond sale
  - Repo interest is treated as a type of interest income

Contents

1 KOREA Money Market & Repo
2 KOREA Repo Market
  - Current Situation
3 KSD Repo Service
### Repo Institution

<table>
<thead>
<tr>
<th>Types of trade</th>
<th>Definition</th>
<th>Eligible participants</th>
<th>Eligible securities</th>
</tr>
</thead>
</table>
| **Institutional Repo** | Institution VS. Institution | ▪ Almost financial Institution  
▪ Legislation | ▪ All securities  
▪ Deposited  
▪ Valuated for Unit cost |
| **Customer Repo** | Institution VS. Customer | ▪ Specific financial Institution can have repo sell position  
▪ Legislation | ▪ KTB  
▪ Reliable corporate bonds  
▪ Deposited  
▪ Valuated for Unit cost |
| **BOK Repo** | BOK VS. Institution | ▪ Designated by BOK  
▪ Position confirmed by BOK | ▪ Designated by BOK  
▪ Deposited  
▪ Valuated for Unit cost |

### Repo in Korea

#### Repo Markets (1)

- **Participant**
  - **Financial Institutions (FIs)**
    - 34 business categories are stated (Foreign FIs included)

- **Eligible Securities**
  - **Any types of securities**
    - Fixed Income Securities
    - Stocks, Warrants, DRs, Beneficiary Certificate
    - ABS, MBS and CPs
  - KSD does not support all types of securities but bonds, ABS, MBS, CPs, ETFs and Stocks

- **Settlement**
  - Settlement through KSD Repo System
    - Trade details input → Matching → Settlement Statement
    - DVP or FOP Settlement
    - Marking-to-market, Substitution, Trade adjustment etc.
Repo in Korea

- Repo Markets (2)

**Institutional Repo Market (OTC)**

**Institutional Repo Market (KRX)**

**Customer Repo Market**

**BOK Repo Market**

**Participant**

- KRX Members

**Eligible Securities**

- **Good-rated Bonds**
  - KTBs
  - MSBs (Monetary Stabilization Bonds)
  - Good-rated Corporate Bonds (AA or better)

**Settlement**

- Settlement through KSD Bond Settlement System
  - KRX transmits trade details to KSD
  - DVP Settlement through KSD Bonds Settlement System
  - Transaction Management by KRX

Repo in Korea

- Repo Markets (3)

**Institutional Repo Market (OTC)**

**Institutional Repo Market (KRX)**

**Customer Repo Market**

**BOK Repo Market**

**Participant**

- Financial Institutions and Non-FIs / Individual
  - Securities Companies, Banks, KSFC
  - Non-FIs and individual investors

**Eligible Securities**

- **Good-rated Bonds**
  - Government Bonds, Municipal Bonds
  - Special Bonds, Financial Bonds, Corporate Bonds
  - ABS, MBS

**Settlement**

- Hold-in Custody through KSD Repo System
  - Purchased securities are not transferred but kept in seller’s a/c
  - Margin ratio should be greater than 105% at any time
Repo in Korea

- Repo Markets (4)

  - Institutional Repo Market (OTC)
  - Institutional Repo Market (KRX)
  - Customer Repo Market
  - BOK Repo Market

**Participant**
- 29 Institutions
  - BOK selects BOK Repo participants every year (8.1~7.31)

**Eligible Securities**
- Government Bonds
- Money Stabilization Bonds
- Government Guaranteed Bonds

**Settlement**
- Settlement through KSD Repo System
  - BOK transmits trade details to KSD
  - DVP Settlement and Transaction Management by KSD

Market Situation in Korea

- Balance of Money Market Trade for Recent 5 years

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>Increase Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call</td>
<td>27.2</td>
<td>34.6</td>
<td>30.7</td>
<td>28.1</td>
<td>28.9</td>
<td>2.8</td>
</tr>
<tr>
<td>Institutional Repo</td>
<td>7.0</td>
<td>11.0</td>
<td>15.6</td>
<td>23.4</td>
<td>24.7</td>
<td>5.6</td>
</tr>
<tr>
<td>CD</td>
<td>113.3</td>
<td>44.5</td>
<td>32.6</td>
<td>24.7</td>
<td>26.1</td>
<td>5.7</td>
</tr>
<tr>
<td>CP</td>
<td>13.9</td>
<td>15.6</td>
<td>19.1</td>
<td>20.7</td>
<td>20.2</td>
<td>-2.4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>161.4</td>
<td>105.7</td>
<td>98</td>
<td>96.9</td>
<td>99.9</td>
<td>3.1</td>
</tr>
</tbody>
</table>

* Unit: billion dollars
Market Situation in Korea

- Daily Average Balance of Institutional Repo & Call Trades

Contents

1. KOREA Money Market & Repo
2. KOREA Repo Market
3. KSD Repo Service
   - Tri-party Repo Service
Preview of KSD Repo Services

Trade Execution → Start-Leg Settlement → Repo Term → Close-Leg Settlement

Broker → KSD → Repo Seller

KSD Repo Services

- To get the KSD Repo Service

Open KSD & BOK Account
- Application for KSD Repo Services (Run by Customer Support Team)
- Installation of SAFE+ launcher (for client)
- BOK account for DVP process

Account Book
- Legal ledger that represent depositor’s rights on their securities
- Transfer becomes valid through just Book-entry without real-securities
Operation of Repo System

Ordering via Telephone
- The most effective methods for order
- Proposal for improvements: Screen trading system

Matched by Broker
- According to terms & conditions of trade

Execution for GMRA
- Execution of Contracts applied to the GMRA

1. Submission to Repo System
2. Confirmation
3. Trade Details
4. Settlement

Order
Matching
Execution
Start leg
Submission
Confirm
Settlement
Repo Term
Submission
Notification
Settlement
Close leg
Submission
Notification
Settlement

Trade
Front Office (Trade)
Back office (Operation)
Repo System
Notification
Server To Server
Notification
Notification
SAFE+
AP 1,2
(Application Server)
DB
SAFE+
Repo Seller
KMB
SMBC
KIDB
KSFC
Repo Buyer
Front Office (Trade)
Back office (Operation)
Fig.18
Operation of Repo System

Operation of Repo System
Tri-party Repo Service by KSD

1. Independent Service

2. Flexibility via Customized Service

3. Safe Repo Account Managing

4. Reliability as a CSD

THANK YOU

Dong-Shin Sohn
Repo Team
repo@ksd.or.kr
+82-2-3774-3344 ~ 7
### Extra Information

**History of KOREA Repo Market**

<table>
<thead>
<tr>
<th>Year</th>
<th>Outstanding Balance (Daily Average, OTC Repo)</th>
<th>No. of Repo Settled (Yearly, OTC Repo)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1962</td>
<td>0.6</td>
<td>2,074</td>
</tr>
<tr>
<td>1962</td>
<td>2.4</td>
<td>432</td>
</tr>
<tr>
<td>1962</td>
<td>1.3</td>
<td>6,382</td>
</tr>
<tr>
<td>1977</td>
<td>1.1</td>
<td>11,199</td>
</tr>
<tr>
<td>1999</td>
<td>4.8</td>
<td>133,915</td>
</tr>
<tr>
<td>2002</td>
<td>7.0</td>
<td>260,267</td>
</tr>
<tr>
<td>2006~2007</td>
<td>11.0</td>
<td>263,795</td>
</tr>
<tr>
<td>2010~2012</td>
<td>15.6</td>
<td>327,872</td>
</tr>
<tr>
<td>2013</td>
<td>23.4</td>
<td></td>
</tr>
</tbody>
</table>

* BOK : Bank of Korea
* KSFC : Korea Securities Finance Corp.
* KOFIA : Korea Financial Investment Association

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1962</td>
<td>BOK started Repo</td>
</tr>
<tr>
<td>1962</td>
<td>KSFC &amp; Securities Firms started Repo</td>
</tr>
<tr>
<td>1962</td>
<td>KSD opened Triparty Repo Service</td>
</tr>
<tr>
<td>1977</td>
<td>KRX opened Repo Market</td>
</tr>
<tr>
<td>1999</td>
<td>Repo became exception to bankruptcy procedure</td>
</tr>
<tr>
<td>2002</td>
<td>Eligible collateral expanded (bond → securities)</td>
</tr>
<tr>
<td>2006~2007</td>
<td>KOFIA Repo agreement revised</td>
</tr>
<tr>
<td>2008</td>
<td>KSD fee lowered (approx. 50% down)</td>
</tr>
<tr>
<td>2010~2012</td>
<td>Gov'n't announced policies to boost repo market</td>
</tr>
<tr>
<td>2013</td>
<td>- Restriction on unsecured loan</td>
</tr>
<tr>
<td></td>
<td>- New repo broker appeared</td>
</tr>
<tr>
<td></td>
<td>- Revelation of real-time info.</td>
</tr>
<tr>
<td></td>
<td>GCF Repo system(2013)</td>
</tr>
</tbody>
</table>

* BOK : Bank of Korea
* KSFC : Korea Securities Finance Corp.
* KOFIA : Korea Financial Investment Association

- Restriction on unsecured loan
- New repo broker appeared
- Revelation of real-time info.

GCF Repo system(2013)
Work Plan and Other Issues

ADB Secretariat Team
Shinji Kawai, OREI, ADB

15th ABMF Meeting
Manila, Philippines, 18th March 2014

* Contents of the presentation could be changed subject to the members’ discussion during the meeting

Outline

1. Publication of Phase 2 report
2. Work plan after Manila meeting
Phase 2 Report Publication

- Published on ADB’s and other ABMF members’ web-site (18th March 2014).
  - Any members who are interested in posting the reports on their web-sites are welcome.

(Sub-Forum 1)

“Proposal on ASEAN+3 Multi-Currency Bond Issuance Framework”

(Contents)

I. Background
II. Basic Approaches
III. Development the Concept of AMBIF
IV. AMBIF Components Required for implementation
V. AMBIF Regulatory Process
VI. Market Requirements and Components
VII. Conclusion
VIII. Next Step in ABMF Phase 3

Phase 2 Report Publication

(Sub-Forum 2)

“Information on Transaction Flows and Settlement Infrastructures”

(Contents)

Part 1: Bond Markets and Their Infrastructures in ASEAN+3
Part 2: Bond Markets and Their Infrastructures in Individual Economies

- Bond infrastructure and transaction diagrams of Brunei Darussalam, Cambodia, Lao PDR and Myanmar are newly included.
## Work Plan after Manila Meeting

- **2Q 2014: Market guide update**
  - Cambodia and Myanmar will be included as result of BCLMV knowledge support and market visits.
  - Hits on ADB website alone exceeded 1 million (as of Jan. 2014)
  - Also updates in Phase 3. Conduct needs analysis of the markets and other users for further improvement.

### Phase 3 ABMF Activities: 2014 – 2015 H1

- **15th ABMF meeting (18 Mar 2014)**
  - (SF1) Work plan for AMBIF implementation / pilot issues
  - (SF2) Work plan for the standardization and new study

### Phase 3 ABMF Activities: 2014 – 2015 H1 (continued)

- **16th ABMF meeting (Jul – Aug 2014)**
  - (SF1) AMBIF discussion / Pilot issuance / Market visits findings
  - (SF2) Discussion standardization and study / Market visits findings

- **17th ABMF meeting (Oct – Nov 2014)**
  - (SF1) Finalization of ABMF implementation / pilot issue plans
  - (SF2) Draft interim report on the Phase 3 study

- **Reporting to ABMI TF3 (Nov 2014)**
  - Reporting the result on AMBIF implementation and pilot issue
  - Reporting the interim reports of the Phase 3
Work Plan after Manila Meeting

- 2015 (H1)
  - ABMF meetings: 18th (Feb – Mar) and 19th (May– Jun) (TBC)
  - (SF1) Follow up on the implementation of AMBIF / pilot issue
  - (SF2) Finalizing Phase 3 study: Reference DVP model, message format/items, cross-border repo and collateral
  - Final reporting to ABMF TF3 in Q1 2015 and submission of the reports to AFMCBG meeting in May 2015
  - 2nd Update of the Market Guide (by Jun 2015)

Thank You

http://asean3abmf.adb.org
http://asianbondsonline.adb.org

For further information
Mr. Shinji Kawai, Senior Financial Sector Specialist: skawai@adb.org
Mr. Kuei-Hua Wu, Financial Sector Specialist: khwu@adb.org