<table>
<thead>
<tr>
<th>DATE &amp; TIME</th>
<th>PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 APR 2013</td>
<td><strong>DAY 1: ABMF Sub-Forum 1 (SF1)</strong></td>
</tr>
<tr>
<td>08:30 – 09:00</td>
<td>Registration</td>
</tr>
<tr>
<td>09:00 – 09:10</td>
<td><strong>Welcoming Remarks</strong> by Dr. Bambang P.S. Brodjonegoro, Head of Fiscal Policy Office, Ministry of Finance of the Republic of Indonesia</td>
</tr>
<tr>
<td>09:10 – 09:30</td>
<td><strong>Key Note Speech</strong> by Dr. Muliaman D. Hadad Chairman of Indonesia Financial Services Authority</td>
</tr>
<tr>
<td>09:30 – 09:40</td>
<td><strong>Opening Remarks</strong> by Mr. Shunzo Kayanuma, SF1 Chair</td>
</tr>
<tr>
<td>09:40 – 10:30</td>
<td><strong>Session 1 (Information Session): Government Bond Market in Indonesia: Risk and Management</strong> by Ms. Loto Srianita Ginting, Director of Government Debt, Debt Management Office, Ministry of Finance of the Republic of Indonesia</td>
</tr>
<tr>
<td>10:30 – 11:00</td>
<td>Coffee break</td>
</tr>
<tr>
<td>11:00 – 12:00</td>
<td><strong>Session 2: Interim Phase 2 Report of SF1 (Part 1)</strong> – Presentation on the Progress and Issues by ADB secretariat</td>
</tr>
<tr>
<td><strong>12:00 – 13:30</strong></td>
<td>Lunch (venue: SATOO Restaurant, Level 1, Shangri-La Hotel Jakarta)</td>
</tr>
<tr>
<td>13:30 – 15:00</td>
<td><strong>Session 3: Interim Phase 2 Report of SF1 (Part 2)</strong> – Q and A and confirmation on the Report by the members</td>
</tr>
<tr>
<td>15:00 – 16:10</td>
<td><strong>Session 4 (Optional Session): Interim Phase 2 Report of SF1 (Part 3)</strong> – Finalize any remaining issues on the Report</td>
</tr>
<tr>
<td>* This session is optional depending on the remaining issues on the SF1 Report. If no issues left, then the Session will not be held</td>
<td></td>
</tr>
<tr>
<td>16:10 – 16:30</td>
<td>Coffee break (* No coffee break in case the Session 4 is not being held)</td>
</tr>
<tr>
<td>16:30 – 17:00</td>
<td><strong>Session 5: Other issues of SF1</strong></td>
</tr>
<tr>
<td>(15:00 – 16:10)</td>
<td>- Leveraging ABMF activities (ABMI TF3 Chair)</td>
</tr>
<tr>
<td>(In case the Session 4 is not being held)</td>
<td>- Work plan after Jakarta meeting (ADB secretariat)</td>
</tr>
<tr>
<td>17:00 – 17:10</td>
<td><strong>Wrap up</strong> by ADB Secretariat</td>
</tr>
<tr>
<td>(16:10 – 16:20)</td>
<td>(In case the Session 4 is not being held)</td>
</tr>
</tbody>
</table>
### 24 APR 2013

#### DAY 2: ABMF Sub-Forum2 (SF2)

<table>
<thead>
<tr>
<th>DATE &amp; TIME</th>
<th>PROGRAM</th>
</tr>
</thead>
</table>
| **08:00 – 09:00** | (Additional meeting on SF1 to finalize SF1 Report)  
* Optional depending on the remaining issues on SF1 Report |
| **09:00 – 09:30** | Registration for SF2 |
| **09:30 – 09:40** | Opening Remarks by Mr. Jong Hyung Lee, SF2 Chair |
| **09:40 – 10:40** | Session 6: Interim Phase 2 Report of SF2 (Part 1)  
– Presentation on the Progress and Issues by ADB secretariat |
| **10:40 – 11:00** | Coffee break |
| **11:00 – 12:30** | Session 7: Interim Phase 2 Report of SF2 (Part 2)  
– Q and A and confirmation on the Report by the members |
| **12:30– 14:00** | Lunch (venue: SATOO Restaurant, Level 1, Shangri-La Hotel Jakarta) |
| **14:00 – 14:50** | Session 8 (Information Session) : ISO 20022 – Adoption in Asia-Pacific and the rest of the world by SWIFT (Mr. Alex Kech & Mireia Guisado Parra) |
| **14:50 – 16:00** | Session 9 (Optional Session): Interim Phase 2 Report of SF2 (Part 3)  
– Finalize any remaining issues on the Report  
* This session is optional depending on the remaining issues on the SF2 Report. If no issues left, then the Session will not be held |
| **16:00– 16:20** | Coffee break (* No coffee break in case the Session 9 is not being held) |
| **16:20 – 16:50** | Session 10: Other issues of SF2  
- Leveraging ABMF activities (ABMI TF3 Chair)  
- Work plan after Jakarta meeting (ADB secretariat) |
<p>| (14:50 – 15:20) | (In case the Session 9 is not being held) |</p>
<table>
<thead>
<tr>
<th>DATE &amp; TIME</th>
<th>PROGRAM</th>
</tr>
</thead>
</table>
| 16:50 – 17:00 | **Wrap up** by ADB Secretariat  
(15:20 – 15:30) | (In case the Session 9 is not being held) |
| 17:00 – 17:10 | **Closing Remarks** by Mr. Jong Hyung Lee, SF2 Chair  
(15:30 – 15:40) | (In case the Session 9 is not being held) |
| 18:00 | **Dinner** *(venue: SATOO Restaurant, Level 1, Shangri-La Hotel Jakarta)* |
Key Findings and Policy Recommendations for Enhancing STP in Bond Transaction Flows in the ASEAN+3 Economies
Interim Report (Preliminary Draft as of 19 April 2013)

ASEAN+3 Bond Market Forum Sub-Forum 2
(ABMF SF2)

April 2013

Asian Development Bank
Table of Contents

EXECUTIVE SUMMARY ................................................................................................ V
I. INTRODUCTION ........................................................................................................ 1
II. FINDINGS ON BOND MARKET INFRASTRUCTURES AND TRANSACTION FLOWS .................................................................................................................. 2
   A. BOND MARKET INFRASTRUCTURES ..................................................................... 2
   B. DVP FLOWS ............................................................................................................. 7
   C. INTEREST PAYMENT FLOWS .................................................................................. 10
   D. MESSAGE STANDARDS .......................................................................................... 12
   E. NUMBERING AND CODING .................................................................................... 14
   F. MARKET PRACTICES AND OTHER ISSUES .......................................................... 15
   G. CROSS-BORDER DVP FLOWS .............................................................................. 16
III. KEY OBSERVATIONS AND POLICY RECOMMENDATIONS .......................................... 18
   A. BOND MARKET INFRASTRUCTURES ................................................................... 18
   B. DVP FLOWS .......................................................................................................... 19
   C. INTEREST PAYMENT FLOWS ............................................................................... 20
   D. MESSAGE STANDARDS INCLUDING NUMBERING AND CODING .................... 21
   E. MARKET PRACTICES AND OTHER ISSUES ......................................................... 23
   F. CROSS-BORDER STP AND LCY LIQUIDITY ......................................................... 24
IV. SUGGESTIONS FOR NEXT PHASE OF ABMF ACTIVITIES AND ROADMAP .................................................. 25
    A. SUGGESTIONS FOR NEXT ABMF ACTIVITIES .................................................. 25
    B. ROADMAP AND FUTURE WORK PLAN ............................................................... 26
V. CONCLUSION ............................................................................................................. 27

LIST OF ABMF SF2 MEMBERS FOR PHASE 2 ACTIVITIES ........................................ 29
### Glossary / Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABMF</td>
<td>ASEAN+3 Bond Market Forum</td>
</tr>
<tr>
<td>ABMI</td>
<td>Asian Bond Markets Initiative</td>
</tr>
<tr>
<td>AMA</td>
<td>Account Management Agent</td>
</tr>
<tr>
<td>ANNA</td>
<td>Association of National Numbering Agencies</td>
</tr>
<tr>
<td>ASEAN+3</td>
<td>Association of Southeast Asian Nations, the People’s Republic of China, Japan, and the Republic of Korea</td>
</tr>
<tr>
<td>BI</td>
<td>Bank Indonesia</td>
</tr>
<tr>
<td>BIC</td>
<td>Business Identifier Code</td>
</tr>
<tr>
<td>BIS</td>
<td>Bank for International Settlements</td>
</tr>
<tr>
<td>BRU</td>
<td>Brunei Darussalam</td>
</tr>
<tr>
<td>BOJ</td>
<td>Bank of Japan</td>
</tr>
<tr>
<td>BTr</td>
<td>Bureau of Treasury</td>
</tr>
<tr>
<td>CAM</td>
<td>Kingdom of Cambodia</td>
</tr>
<tr>
<td>CCP</td>
<td>Central Counterparty</td>
</tr>
<tr>
<td>CPSS</td>
<td>Committee on Payment and Settlement Systems</td>
</tr>
<tr>
<td>CSD</td>
<td>Central Securities Depository</td>
</tr>
<tr>
<td>CSDCC</td>
<td>China Securities Depository and Clearing Company Limited</td>
</tr>
<tr>
<td>DVP</td>
<td>Delivery versus Payment</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>EX</td>
<td>Exchange</td>
</tr>
<tr>
<td>FX</td>
<td>Foreign Exchange</td>
</tr>
<tr>
<td>HKG</td>
<td>Hong Kong, China</td>
</tr>
<tr>
<td>HKMA</td>
<td>Hong Kong Monetary Authority</td>
</tr>
<tr>
<td>INO</td>
<td>Republic of Indonesia</td>
</tr>
<tr>
<td>IOSCO</td>
<td>International Organization of Securities Commissions</td>
</tr>
<tr>
<td>ISIN</td>
<td>International Securities Identification Number</td>
</tr>
<tr>
<td>ISO</td>
<td>International Organization for Standardization</td>
</tr>
<tr>
<td>JASDEC</td>
<td>Japan Securities Depository Center</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Name</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>JGBCC</td>
<td>Japan Government Bond Clearing Corporation</td>
</tr>
<tr>
<td>JPN</td>
<td>Japan</td>
</tr>
<tr>
<td>KPEI</td>
<td>PT Kliring Penjaminan Efek Indonesia (Indonesian Clearing and Guarantee Corp.)</td>
</tr>
<tr>
<td>KOR</td>
<td>Republic of Korea</td>
</tr>
<tr>
<td>KRX</td>
<td>Korea Exchange</td>
</tr>
<tr>
<td>KSD</td>
<td>Korea Securities Depository</td>
</tr>
<tr>
<td>KSEI</td>
<td>PT Kustodian Sentral Efek Indonesia (Indonesian Central Securities Depository)</td>
</tr>
<tr>
<td>LAO</td>
<td>Lao People's Democratic Republic</td>
</tr>
<tr>
<td>LCY</td>
<td>Local Currency</td>
</tr>
<tr>
<td>MAL</td>
<td>Malaysia</td>
</tr>
<tr>
<td>MAS</td>
<td>Monetary Authority of Singapore</td>
</tr>
<tr>
<td>MOF</td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>MYA</td>
<td>Republic of the Union of Myanmar</td>
</tr>
<tr>
<td>OTC</td>
<td>Over-The-Counter</td>
</tr>
<tr>
<td>PA</td>
<td>Paying Agent</td>
</tr>
<tr>
<td>PDEx</td>
<td>Philippine Dealing and Exchange Corporation</td>
</tr>
<tr>
<td>PDTC</td>
<td>Philippine Depository &amp; Trust Corp.</td>
</tr>
<tr>
<td>PFMI</td>
<td>Principles for Financial Market Infrastructures</td>
</tr>
<tr>
<td>PHI</td>
<td>Republic of the Philippines</td>
</tr>
<tr>
<td>PRC</td>
<td>People’s Republic of China</td>
</tr>
<tr>
<td>PSET</td>
<td>Place of Settlement</td>
</tr>
<tr>
<td>PSMS</td>
<td>Pre-Settlement Matching System</td>
</tr>
<tr>
<td>RTGS</td>
<td>Real Time Gross Settlement</td>
</tr>
<tr>
<td>SF1</td>
<td>Sub-Forum 1</td>
</tr>
<tr>
<td>SF2</td>
<td>Sub-Forum 2</td>
</tr>
<tr>
<td>SHCH</td>
<td>Shanghai Clearing House</td>
</tr>
<tr>
<td>SIN</td>
<td>Republic of Singapore</td>
</tr>
<tr>
<td>SRO</td>
<td>Self-Regulatory Organization</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>SSS</td>
<td>Securities Settlement System</td>
</tr>
<tr>
<td>STP</td>
<td>Straight Through Processing</td>
</tr>
<tr>
<td>THA</td>
<td>Kingdom of Thailand</td>
</tr>
<tr>
<td>TR</td>
<td>Trade Repository</td>
</tr>
<tr>
<td>TS</td>
<td>Trading System</td>
</tr>
<tr>
<td>TSD</td>
<td>Thailand Securities Depository</td>
</tr>
<tr>
<td>TWA</td>
<td>Tax Withholding Agent</td>
</tr>
<tr>
<td>VIE</td>
<td>Socialist Republic of Viet Nam</td>
</tr>
<tr>
<td>VSD</td>
<td>Vietnam Securities Depository</td>
</tr>
<tr>
<td>WHT</td>
<td>Withholding Tax</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

The ASEAN+3 Bond Market Forum (ABMF) was established in September 2010 as a common platform to foster standardization of market practices and harmonization of regulations relating to cross-border bond transactions in the region after being endorsed by the ASEAN+3 Finance Ministers’ Meeting. The ABMF aims to discuss various bond market issues in order to enhance the mobilization of regional savings for regional investments and to improve information flow in the markets. The ABMF consists of two forums: Sub-Forum 1 (SF1) and Sub-Forum 2 (SF2). The objective of SF1 is to close the information gap in regulations, market practices, and other areas in the region’s bond markets. SF2 focuses on enhancing regional straight through processing (STP) by harmonization of transaction procedures and standardization of messages.

The ABMF SF2 members and experts 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. The detailed survey results are presented in a separate report titled “Bond Market Infrastructure Diagrams, Bond Transaction Flows, Interest Payment & Redemption Flows, and Bond Transaction Flows for Foreign Investors.”

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 summarized in this report. Fit & 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. Message format, 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.

(Observations and Policy Recommendations) Based on the findings, observations and policy recommendations are compiled aiming at fulfilling objectives of

---

1 Currently, ASEAN+3 Finance Ministers and Central Bank Governors’ Meeting
2 SF1 is presently focusing on ASEAN+3 Multi-currency Bond Issuance Framework (AMBIF).
ABMF SF2 as follows.

1) **Bond Market Infrastructures:** Robust and sound bond market infrastructures such as Central Securities Depository (CSD) and Real Time Gross Settlement (RTGS) systems are already implemented in the 10 economies\(^3\) that have already developed bond markets in the region. However, infrastructures for further efficiency and risk reduction purposes such as Pre-Settlement Matching System (PSMS), Central Counterparty (CCP), Trade Repository (TR), and automated Trading System (TS) are not implemented yet in most of the economies. Such infrastructures may be introduced considering a variety of conditions including the level of trade value, trade volume, and number of market participants.

2) **DVP Flows:** Bond trade and settlement (DVP) flows in ASEAN+3 vary economy by economy or even CSD by CSD. The flows for residents are in some cases different from those for non-residents. It is recommended to discuss harmonization of the flows considering the impact to both the infrastructures themselves and participant systems connected with them. Such harmonization could be utilized for defining requirements of interlinking gateways and/or a hub between CSD and/or RTGS systems in the region.

3) **Interest Payment Flows:** Interest payment and redemption flows are also different economy by economy and CSD by CSD. One of key reasons for the different flows lies in the different tax regimes applied. Regarding interest payment flows, it will be difficult to simply standardize them into a single flow since there are so many fundamental differences owing to the different tax regimes such as capturing the tax status of investors and the legal interpretation of tax withholding agent, among others. In our survey, many market participants expected regulators to be able to exempt non-residents from Withholding Tax (WHT).

4) **Message Formats including Numbering and Coding:** Message

\(^3\) The 10 economies comprise People’s Republic of China (PRC), Hong Kong, China (HKG), Republic of Indonesia (INO), Japan (JPN), Republic of Korea (KOR), Malaysia (MAL), Republic of the Philippines (PHI), Republic of Singapore (SIN), Kingdom of Thailand (THA), and Socialist Republic of Viet Nam (VIE).
formats in most economies in ASEAN+3 are not compliant with international standards yet. It is recommended that the message format be made compliant with ISO 20022. ABMF members and ASEAN+3 authorities are expected to support the adoption of ISO 20022 as message standards of bond market infrastructures. The numbering and coding standards which are already registered as international standards such as ISIN and BIC are recommended to be adopted in ASEAN+3.

5) **Market Practices**: It is recommended that market practices could be harmonized across ASEAN+3, which could lead to smoother processing of cross-border trade and settlement. Also, it could increase the possibility for cross-border collateral, repo, and DVP to be used more flexibly in the region. Harmonization of market practices might be discussed where possible considering the cost and benefit of implementation in ASEAN+3.

6) **Cross-border STP and LCY Liquidity**: 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 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.

(Suggestions for Next Phase of ABMF Activities) 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 – Adoption of international Standard:** To adopt ISO 20022 and International Securities Identification Number (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.
   - Specific market practices to be discussed will be chosen from the viewpoint of promoting cross-border STP in ASEAN+3 considering the cost and benefit of standardization.
   - Settlement cycles in line with FX spot dates and time period between record date and payment date could be candidates to be studied.

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.
   - The study could also include cross-border collateral and repo services linking CSD and RTGS systems.
   - Interest payment flows related to cross-border collateral and repo services linking CSD and RTGS systems could also be studied.

(Roadmap and Work Plan) In relation to the suggested next phase of ABMF activities, ABMF SF2 would like to propose the following roadmap and work plan, subject to the approval by the ABMI TF3 members.

1) **Short Term (2013):** Preparation for Phase 3 activities
   - Conducting further studies on the proposed three topics of 1-3 for future activities
   - With respect to the proposed topic 4, scope of cross-border collateral and repo linking bond market infrastructures will be determined. A meeting to discuss cross-border collateral and
repo services will be held by the participants from central banks in order to show possible directions of such services in ASEAN+3. The first central bank meeting will be held back-to-back with the 13th ABMF in July 2013.
- Completing phase 2 report

2) **Medium Term (2014-2015):** Providing proposals for the harmonization of ASEAN+3 bond markets.
- Proposal on a reference model of DVP flows
- Proposal on ISO 20022 adoption of message items
- Proposal on harmonizing market practices, where possible
- Proposal on cross-border collateral and repo services

3) **Long Term (After 2015):** Implementation of international standards
- Upgrade or reconstruction of bond market infrastructures in accordance with International standard (ISO 20022) in some of the economies
- Progress in harmonization of market practices such as settlement cycle
- Progress in discussion on linkage of bond market infrastructures in the region.

**(Submission of the Report to ABMI TF3)** ABMF SF2 would like to submit this interim report to Asian Bond Market Initiative (ABMI) Task Force 3 (TF3) as key findings of SF2. The SF2 members expect that the information and data accumulated through ABMF SF2 activities would be utilized as substantial and practical references in pursuing the harmonization of transaction flows and market practices. ABMF SF2 members hope the suggested recommendations in this report could be a good reference for the policy authorities in designing and implementation bond market policies.

**(Full Report of SF2)** A full report on ABMF SF2 activities including detailed information and diagrams on transaction flows for each economy will be produced by the end of 2013 to be submitted to ABMI TF3 members.
I. INTRODUCTION

1. The Joint Ministerial Statement of the 13th Association of Southeast Asian Nations, the People’s Republic of China, Japan, and the Republic of Korea (ASEAN+3) Finance Ministers’ Meeting, which was held on 2 May 2010 in Tashkent, Uzbekistan, endorsed the establishment of the ASEAN+3 Bond Market Forum (ABMF) as a common platform to foster standardization of market practices and harmonization of regulations relating to cross-border bond transactions in the region.

2. The ABMF aims to discuss various bond market issues in order to enhance the mobilization of regional savings for regional investments and to improve information flow in the markets. The ABMF consists of two forums: Sub-Forum 1 (SF1) and Sub-Forum 2 (SF2). The objective of SF1 is to close the information gap in regulations, market practices, and other areas in the region’s bond markets. SF2 focuses on enhancing regional straight through processing (STP) by harmonization of transaction procedures and standardization of messages.

3. The ABMF SF2 members and experts have surveyed detailed bond transaction flows with a view to enhancing STP. In the first phase (Phase 1) of its activity during 2010-2011, comprehensive information on DVP transaction flows of government bonds had been collected. In addition, in the following phase (Phase 2) of activities during 2012-2013, SF2 has continued collecting information on DVP flows on corporate bonds, and interest payment and redemption flows of both government and corporate bonds. Together with identification of the flows, fit and gap analyses on selected message flows and items in reference to global standards (ISO 20022) were conducted to identify similarities and differences of the flows aiming at future harmonization in the region. The detailed survey results are presented in a separate report titled “Bond Market Infrastructure Diagrams, Bond Transaction Flows, Interest Payment & Redemption Flows, and Bond Transaction Flows for Foreign Investors”

4. Ideally in respect of STP, it is desirable that data related to cross-border transactions are transmitted without any manual intervention or message format conversion between the systems. However, this ideal situation can only be materialized if all transactions are operated through systems using common standards and interoperable messaging. This is not currently feasible because individual economies

---

4 Currently ASEAN+3 Finance Ministers and Central Bank Governors Meeting
have their own proprietary systems, which is inevitable given historical backgrounds and because certain transaction procedures follow national requirements to account for unique circumstances. In addition, some segments of a market may prefer their own ways of handling transactions, which creates differences in transaction procedures, hence, requires additional conversions. It is perceived as practical to explore ways to enhance STP with given differences in the systems and standards across the economies.

5. The ABMF SF2 has also surveyed into technical details such as matching, settlement cycle, and other issues including numbering and coding such as International Securities Identification Number (ISIN), Business Identifier Code (BIC), securities account number, and character code though there are some remaining issues which need further survey and clarification.

6. This report is prepared to summarize the key findings done by SF2 for both Phase 1 and Phase 2. Section II presents summary of the findings on bond market infrastructures and transaction flows. Section III highlights the key observations and policy recommendations, Section IV presents suggestions for next phase of the SF2 activities together with a roadmap, and Section V concludes the findings.

II. FINDINGS ON BOND MARKET INFRASTRUCTURES AND TRANSACTION FLOWS

7. In-depth surveys on bond transaction flows have been conducted for the 10 economies comprising People’s Republic of China (PRC), Hong Kong, China (HKG), Republic of Indonesia (INO), Japan (JPN), Republic of Korea (KOR), Malaysia (MAL), Republic of the Philippines (PHI), Republic of Singapore (SIN), Kingdom of Thailand (THA), and Socialist Republic of Viet Nam (VIE). Key findings are presented in this section in respect of (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.

A. Bond Market Infrastructures

8. Government and corporate bond market infrastructures in ASEAN+3 from ‘trade’ to ‘settlement’ are shown in Figure 1 and Figure 2, respectively. In general, robust
and sound bond market infrastructures such as Central Securities Depository (CSD) and Real Time Gross Settlement (RTGS) systems are already implemented in the surveyed 10 economies. However, infrastructure components for further efficiency and risk reduction purposes, such as Pre-Settlement Matching System (PSMS), Central Counterparty (CCP), Trade Repository (TR), and automated Trading System (TS) are not implemented yet in most of the economies. Detailed findings includes the following:

a) Bond Market
- Most bonds (both government and corporate bonds) are not traded on exchanges as listed products but are traded in the OTC markets in ASEAN+3 (where bond markets exist).
- Significant volume of bonds is traded in exchange (order driven) markets only in KOR and PHI.
- Regarding bond trades, most of the trades are ordered and executed domestically.

b) Clearing and Central Counterparty (CCP)
- CCP has been established in some economies (PRC, INO, JPN, KOR and MAL) for bond trades. CCP for the OTC market exists in PRC (SHCH) and JPN (JGBCC). CCPs in PRC (CSDCC), INO (KPEI), KOR (KRX), and MAL (Bursa Malaysia) are for exchange markets.

c) Pre-settlement Matching
- Pre-settlement matching is done manually using telephone, facsimile, e-mail, or similar in most of the economies in ASEAN+3.
- JPN, KOR, and PHI have already implemented automated Pre-Settlement Matching Systems (PSMS) for both government and corporate bonds. SIN also has implemented such kind of system for corporate bond.
- Pre-settlement matching is done by future dated transactions for both government and corporate bonds in some economies such as PRC, HKG, KOR and SIN.

\[5\] Partial pre-settlement matching system
Figure 1: ASEAN+3 Government Bond Market Diagram

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

* This diagram shows entities which is involved in major types of transactions.
Figure 2: ASEAN+3 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 is involved in major types of transactions.
d) Bond Settlement

- Regarding government bonds, central bank related⁶ CSDs mostly settle them in 6 economies (PRC, HKG, INO, JPN, MAL, and SIN) out of 10 economies which have developed bond markets in ASEAN+3. Exchange related CSDs mostly settle them in 2 economies (KOR and THA). Government related CSDs mostly settle government bonds in 2 economies (PHI and VIE). At the same time, exchange related CSD settles a significant portion of government bonds as sub-registry in PHI.

- Regarding corporate bonds, both central bank related CSDs and exchange related CSD settle them in one economy (PRC), and central bank related CSDs mostly settle them in 2 economies (HKG and MAL) out of the 10 economies which have already developed bond markets in ASEAN+3. Exchange related CSDs mostly settle them in 6 economies (INO, JPN, KOR, PHI, SIN, and THA). Government related CSD mostly settles corporate bond in VIE. A significant percentage of bonds remain as physical certificates.

e) Cash Settlement

- Regarding government bonds, central bank money is used in all economies except in VIE in ASEAN+3. BIS DVP model ¹⁷ is available in these 9 economies. Commercial bank money can also be used in PRC though the percentage to total settlement value is very low.

- Regarding corporate bonds, central bank money is used in 8 economies.

---

⁶ “Related” here implies owned, operated and/or governed depending on the specific structure of each CSD.

⁷ BIS DVP models as follows:

Model 1 - Systems that settle transfer instructions for both bond and funds on a trade-by-trade (gross) basis, with final (unconditional) transfer of bond from the seller to the buyer (delivery) occurring at the same time as final transfer of funds from the buyer to the seller (payment).

Model 2 - Systems that settle bond transfer instructions on a gross basis, with final transfer of bond from the seller to the buyer (delivery) occurring throughout the processing cycle, but settle funds transfer on a net basis, with final transfer of funds from the buyer to the seller (payment) occurring at the end of the processing cycle.

Model 3 - Systems that settle transfer instructions for both bond and funds on a net basis, with final transfers of both bond and funds occurring at the end of the processing cycle.
economies (PRC, HKG, JPN, KOR, MAL, PHI, SIN, and THA). Commercial bank money is used in 4 economies (PRC, INO, KOR and VIE). In PRC, central bank money is mainly used but commercial bank money is used when bonds are settled in the exchange related CSD.

B. DVP Flows

9. Fit & gap analyses on typical DVP flows have been conducted in reference to a selected typical model DVP flow as shown in Figure 3. More specifically, messages and the flows such as ‘settlement instruction data’, ‘settlement confirmation’, ‘cash settlement instruction data’, and ‘cash settlement confirmation’ were examined. Key findings could be summarized as follows:

**Figure 3: A Model DVP Flow (Key Elements)**

a) “Settlement Instruction Data” are transferred online from an upstream system such as PSMS or other systems including TR and TS to the
CSD from the view point of STP. In PRC, KOR, JPN, PHI and VIE, each book entry system receives and/or can receive settlement instruction or trade data (on-line) from other systems for both government and corporate bonds. In other economies, the sell side and/or buy side enter the data.

b) In case “Settlement Instruction Data” are transferred from an upstream system to the CSD, the data are forwarded from the CSD to the sell side and buy side for affirmation. CSDs in PRC, JPN, and PHI forward the data to the sell side and buy side for both government and corporate bonds.

c) In case “Settlement Instruction Data” are forwarded from the CSD, to the sell side and buy side, both sides affirm the data. In PRC, JPN, and PHI, the data are affirmed and sent back to CSD for both government and corporate bonds.

d) Both central matching and local matching are used as settlement matching for both government and corporate bonds. In HKG, INO, KOR, THA and VIE, central matching is adopted for both government and corporate bonds. In MAL, local matching is adopted for both government and corporate bonds. In PRC, PHI and SIN, both types of matching are adopted for both government and corporate bonds. In JPN, local matching is adopted for government bonds and central matching is adopted for corporate bonds.

e) All CSDs adopting central matching send a matching notice to the sell side and buy side. The CSDs adopting local matching functionally do not have such notice.

f) “Settlement Confirmation” is sent from the CSD to the sell side and buy side. CSDs send “Settlement Confirmation” except in PHI and VIE for both government and corporate bonds.

g) Definition and ownership of locked, earmarked, or blocked seller’s

---

8 This will start operation when New BOJ-NET is connected with PSMS.
9 Only for Free of Payment: In PHI, central matching is mandatory for trades received from PDEEx (government and corporate bonds). But, for FOP trades, the parties decide whether to use local or central matching.
10 For PHI, settlement is notified to the counterparties via a change in the trade status which parties can view online. Reports on settled trades can also be generated and printed from the settlement system.
bond may be different CSD by CSD. A further survey will be necessary.

h) BIS DVP model 1 is adopted by all economies except for VIE for government bonds, and except for SIN and VIE for corporate bonds with respect to OTC markets. Followings are the summary of the BIS DVP models in the region.

- Model 1 is adopted in PRC (OTC), HKG (OTC), INO, JPN, KOR (OTC), MAL, PHI, SIN and THA for government bond and in PRC (OTC), HKG (OTC), INO, JPN, KOR (OTC), MAL, PHI, and THA for corporate bond.
- Model 2 is adopted in PRC (EX) for government bond and in PRC (EX) and SIN for corporate bond.
- Model 3 is adopted in HKG (OTC), KOR (EX), and VIE for both government and corporate bonds.

i) “Cash Settlement Instruction Data” are transferred online or directly to RTGS in all economies. In JPN\textsuperscript{11} and MAL, CSD and RTGS systems are running on the same platform.

j) “Cash Settlement Instruction Data” are not forwarded from RTGS system to the sell side and/or buy side after receiving the data from the CSD except for JPN and KOR.

k) In case “Cash Settlement Instruction Data” are forwarded to the buy side, the data need to be affirmed. Only in KOR, the sell side and buy side affirm the data for both government and corporate bonds.

l) “Cash Settlement Confirmation” is sent from RTGS system to the sell side and buy side in almost all economies. In MAL and VIE, RTGS system does not send “Cash Settlement Confirmation” for both government and corporate bonds. In MAL, the bond settlement confirmation and cash settlement confirmation are processed in a same message. In VIE, there is no cash settlement confirmation.

C. Interest Payment Flows

10. Interest payment flows as well as roles of the related entities such as Paying

\textsuperscript{11} Only for government bonds
Agent (PA), CSD, and Tax Withholding Agent (TWA) are compared with typical flows shown in Figure 4. In general, interest payment flows differ economy by economy, and the role of the related entities was also different as highlighted below (Detailed findings are referenced in Table 1 and 2 for government bonds and corporate bonds, respectively).

![Diagram of bond issuance process](image)

a) Regarding government bonds, central banks are PA of the issuer (MOF) for interest payment and redemption in 7 economies (HKG, INO, JPN, KOR, MAL, SIN, and THA) out of the 10 economies which have bond markets in ASEAN+3. CSDs are the PA in two economies (PRC and VIE). The Bureau of Treasury (BTr) is the PA in PHI. As for corporate bonds, commercial banks are PA of issuers for interest payment and redemption in 7 economies (HKG, JPN, KOR, MAL,
b) Account Management Agents (AMAs) of bond holders (investors) for interest payment and redemption are CSD participants (mainly custodians) for both government and corporate bonds. Commercial banks (custodians) manage accounts to receive interest payment and redemption from PAs on behalf of investors.

c) Regarding government bonds, no withholding tax (WHT) is imposed in 4 economies (PRC, HKG, MAL and VIE). In JPN and SIN, only non-residents are exempt from WHT. With regards to corporate bonds, no WHT is imposed in 2 economies (HKG and MAL). No WHT is imposed on non-residents in JPN and SIN. TWAs for interest payments and redemptions in other economies are different economy by economy.

<table>
<thead>
<tr>
<th>PA of Issuer</th>
<th>CSD</th>
<th>Payment system</th>
<th>TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRC</td>
<td>CCDC</td>
<td>CCDC</td>
<td>CNAPS Commercial Bank</td>
</tr>
<tr>
<td></td>
<td>CCDC</td>
<td>CSDC</td>
<td></td>
</tr>
<tr>
<td>HKG</td>
<td>HKMA</td>
<td>HKMA</td>
<td>CHATS</td>
</tr>
<tr>
<td>INO</td>
<td>BI</td>
<td>BI</td>
<td>BI-RTGS</td>
</tr>
<tr>
<td>JPN</td>
<td>R01</td>
<td>R01</td>
<td>R01-Net</td>
</tr>
<tr>
<td>KOR</td>
<td>3OK</td>
<td>KSD</td>
<td>BOK-Wire</td>
</tr>
<tr>
<td>MAL</td>
<td>3NM</td>
<td>BNM</td>
<td>RENTAS-IFS</td>
</tr>
<tr>
<td>PHI</td>
<td>BTr</td>
<td>BTr</td>
<td>PhiPaSS</td>
</tr>
<tr>
<td>SII</td>
<td>MAS</td>
<td>MAS</td>
<td>MEPS+</td>
</tr>
<tr>
<td>THA</td>
<td>BOT</td>
<td>TSD</td>
<td>SAHTNET</td>
</tr>
<tr>
<td>VIE</td>
<td>VSD</td>
<td>VSD</td>
<td>BIDV syste1</td>
</tr>
</tbody>
</table>
D. Message Standards

11. (Message format) Selected message Formats (ISO 20022, ISO 15022, or proprietary format) of individual CSDs are surveyed.

   a) Shanghai Clearing House (SHCH) in PRC and the Bank of Japan (BOJ) and the Japan Securities Depository Center (JASDEC) in JPN adopted or will adopt ISO 20022 for their message formats.

   b) Hong Kong Monetary Authority (HKMA) in HKG, Bank Indonesia (BI) and the Indonesian Central Securities Depository (KSEI) in INO, the Monetary Authority of Singapore (MAS) in SIN, and the Thailand Securities Depository (TSD) in THA adopted or will adopt ISO 15022.

   c) Other CSDs use proprietary formats.

12. (Message Items) Typical message items of a settlement instruction and a settlement confirmation are compared with those of ISO 20022. An image of the mapping of message items to ISO 20022 is shown in Figure 5. Some typical message
items of DVP flows such as (1) instruction identification, (2) trade date, (3) settlement date, and (4) place of settlement are compared with that of ISO 20022.

![Message items of ISO 20022 and each CSD]

a) In ISO15022 and ISO20022, “Instruction Identification” means sender’s message reference, but there are some exceptions. For instance, in PHI, the TS of Philippine Dealing and Exchange Corporation (PDEx) assigns unique numbers as instruction identification to individual transactions. Also, in JPN, the CSD system for government bonds (BOJ-Net) assigns unique numbers called “Torihiki-Number” as instruction identification to individual
transactions (The new BOJ-Net will adopt a new “Torihiki ID” in accordance with ISO standards.) The message reference number is essential (mandatory) to identify individual messages.

b) Regarding “Trade Date”, some CSDs (KSD, MAS, BTr, PDTC, TSD and VSD) specify the Trade Date as mandatory. In contrast BOJ does not regard the Trade Date even as an input item. Trade Date is not necessary for settlement, but is necessary to acquire details of a transaction and tax related information.

c) “Settlement Date” is mandatory for all CSDs. VSD calculates the settlement date within their system on the basis of Trade Date\(^\text{12}\) instead of entering it as an input item.

d) “Place of Settlement (PSET)” is mandatory for PDEx, MAS, and TSD, but not for BOJ, KSD, and VSD. PSET would not be required in case participants of a CSD can access only to the specific CSD. But, PSET may be necessary from a cross-border STP perspective.

E. Numbering and Coding

13. The current status of numbering and coding in ASEAN+3 is summarized in Table 3. Adopting international standards such as ISIN and BIC as numbering and coding is considered to be an important issue by members and experts. However, there still remains proprietary numbering and coding in the region.

a) ISIN is not actually used yet in many economies for securities numbering. Also, numbering conventions and some other practices such as allocation of numbers and use of ISIN are not standardized yet. JPN and THA will adopt or adopted ISIN as securities numbering. HKG, INO, KOR, SIN, and VIE partly use ISIN (mainly proprietary numbering). ISIN and proprietary numbering don’t match uniquely in HKG. Proprietary numbering is used in other economies.

b) Many economies don’t use BIC yet for financial institution identification. Local proprietary codes are used instead. INO, JPN, SIN, and THA use or will use BIC as financial institution identification. In PHI, BIC is used only for cash settlement instructions sent to the

\(^{12}\) Definition of Trade Date in VIE is trade data capturing date.
central bank’s RTGS system.

c) Securities account structure is proprietary in all economies in ASEAN+3. Proprietary code is used in all economies with respect to securities and cash accounts.

d) Local languages are still dominant as payment system language in ASEAN+3. Local languages are used for bond settlement systems in ASEAN+3 except in HKG, MAL, PHI, and SIN (English is partly used in INO and THA).

<table>
<thead>
<tr>
<th>Securities Numbering</th>
<th>Financial Institution Identification</th>
<th>Securities Account Structure</th>
<th>Cash Account</th>
<th>Encoding Scheme and Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRC</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>Incode (UTF-8)</td>
</tr>
<tr>
<td>HKG</td>
<td>ISIN and Proprietary (CMU issue)</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>Code supported by SINIFT</td>
</tr>
<tr>
<td>INO</td>
<td>ISIN and Proprietary</td>
<td>BIC and Proprietary</td>
<td>Proprietary</td>
<td>Incode (UTF-8)</td>
</tr>
<tr>
<td>JPN</td>
<td>Proprietary Code and ISIN (for new systems)</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>Incode (UTF-8)</td>
</tr>
<tr>
<td>KOR</td>
<td>ISIN and Proprietary</td>
<td>Proprietary account number</td>
<td>Proprietary</td>
<td>(SCS601 for Korean)</td>
</tr>
<tr>
<td>MAL</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>Proprietary</td>
<td>Incode (UTF-8)</td>
</tr>
<tr>
<td>PHI</td>
<td>Proprietary</td>
<td>Proprietary (POS-assigned frm)</td>
<td>Proprietary</td>
<td>Incode (UTF-8)</td>
</tr>
<tr>
<td>SIN</td>
<td>ISIN and SGX proprietary stock code</td>
<td>proprietary</td>
<td>Proprietary</td>
<td>Incode (UTF-8)</td>
</tr>
<tr>
<td>THA</td>
<td>ISIN</td>
<td>BIC</td>
<td>Proprietary</td>
<td>Incode (UTF-8)</td>
</tr>
<tr>
<td>VIE</td>
<td>ISIN and proprietary</td>
<td>N/A</td>
<td>Proprietary</td>
<td>Incode (UTF-8)</td>
</tr>
</tbody>
</table>

**F. Market Practices and Other Issues**

14. It has been found that some of market practices, which could lead cross-border trade and settlement to smoother processing, are different across economies in ASEAN+3. The key findings include the following:

a) Market Practices such as settlement cycle, cut off time and fail rule are different economy by economy, though further review would be
needed on the practices.

b) The settlement cycle is not regarded as a rule of each market (but agreed through negotiation) except in JPN.

c) Physical certificates remain in many markets in particular for corporate bonds.

d) Post-trade (clearing and settlement) infrastructures in ASEAN+3 are fragmented meaning specific to each market in respect of systems and practices. Cross-border STP is not yet realized.

e) International standard drafting and approving processes are not established yet in ASEAN+3. Governance of ISO is not established yet, either.

f) Identifying an investor whether the investor is “resident or non-resident” or “professional or not” would be an issue that could influence the WHT payment process and a certain type of bond issuance.

G. Cross-border DVP Flows

15. Some specific characteristics of cross-border DVP flows in ASEAN+3 were studied and the key findings in reference to a typical type of cross-border flows in Figure 6 are summarized below:

a) To comply with “Trade Reporting” requirements, domestic brokers and/or banks send trade details to authority in order to ensure transparency in INO, KOR, MAL, and THA.

b) For the purpose of obtaining relevant “Tax Information”, extra messages may need to be exchanged in order to calculate appropriate capital gains tax in INO.

c) Related to the “Remittance of Funds”, foreign institutional investors may need to remit funds before settlement in PRC and VIE due to pre-funding requirement.

d) Global custodians and local custodians need to send additional “FX Instruction & Confirmation” messages in INO, KOR, MAL, PHI, THA, and VIE. Typical FX and cash controls in ASEAN+3 are summarized in Table 4 as a reference.
e) A specific “Registration Document”\textsuperscript{13} needs to be issued for capital repatriation and/or remittance of interest payment in PHI.

\textsuperscript{13} Banko Sentral Registration Document (BSRD)
III. KEY OBSERVATIONS AND POLICY RECOMMENDATIONS

16. Based on the key findings described in Section 2, the members discussed policy recommendations as a guiding reference to policies on bond market regulation and practices of individual economies and also mutual cooperation among the economies in the region in the future. The policy recommendations are identified by order of (1) bond market infrastructures, (2) DVP flows, (3) interest payment flows, (4) message standards including numbering and coding, (5) market practices and other issues, and (6) cross-border STP and LCY liquidity.

A. Bond Market Infrastructures

17. Robust and sound bond market infrastructures such as Central Securities Depository (CSD) and Real time Gross Settlement (RTGS) systems are already implemented in the 10 economies which have already developed bond markets in the region. However, infrastructures for further efficiency and risk reduction purposes, such as Pre-Settlement Matching System (PSMS), Central Counterparty (CCP), Trade Repository (TR), and automated Trading System (TS) are not fully implemented yet. Such infrastructures may be introduced considering a variety of conditions including the level of trade value, trade volume, and number of market participants. When implementing bond market policies in the future, it is also suggested that Principles for Financial Market Infrastructures (PFMI) and related principles and recommendations published by CPSS/IOSCO be observed.

   a) Implementation of Automated Pre-Settlement Matching Infrastructure: Most economies have not yet developed an Automated PSMS and pre-settlement matching is conducted manually. As utilizing an automated PSMS would be conducive to STP, with decreased workload and failure compared to manual processes, it is recommended to implement automated pre-settlement matching infrastructure in each economy in a standardized manner. Pre-settlement matching utilizing forward dated transactions could also be an alternative way. Pre-settlement matching system may be considered as one of the cornerstones in improving STP in the region.

   b) Discussion on CCP with Market Development: It is generally
perceived that a CCP for bond transaction is currently not so urgent when considering limited need for risk reduction through a CCP compared to OTC derivatives, and the lower trading and settlement volume in the current bond markets in the region. In this respect, it is advisable to consider discussions on CCP for the OTC market later when bond trade volumes increase to a significant level. At the same time, introduction of CCP in exchanges might be also considered in relation with other instruments such as equity.

c) **Central and Local Matching as Standard:** Both central matching and local matching are common in ASEAN+3. Considering the market practices and other factors, it is recommended that both central and local matching types are clearly regarded as standard.

d) **Bond Settlement Using Central Bank Money:** In most of the economies, central bank money is used to settle government and corporate bonds. For other economies, it is recommended that central bank money be used for bond settlement including cross-border bond settlement, in particular for government bond settlement to reduce settlement risk with relatively high value.

e) **Strengthening Price Discovery and Transparency:** Trade repositories (TRs) have been established in some economies to secure price discovery and transparency and so as to enhance information flows, which could contribute to cross-border bond trades in the region. For those economies without a TR, it is advisable to consider establishing it when market develops significantly.

**B. DVP Flows**

18. Bond trade and settlement (DVP) flows in ASEAN+3 vary economy by economy or even CSD by CSD. The flows for residents are different from that for non-residents in some economies. It is recommended to discuss harmonization of the flows considering the impact to both the infrastructures themselves and participant systems connected with them. Such harmonization could be utilized for defining business and system requirements of interlinking gateways and/or a hub between CSD
and/or RTGS systems.

   a) **Enhancing STP in CSD Related Data Flows**: Entering settlement instruction data to CSD is not automated yet in many economies and it is recommended that CSDs be connected with upstream infrastructures such as PSMS in order to promote STP in each economy. In such a case, redundant message flows may be identified and removed where possible.

   b) **Developing a Reference Model for DVP Flows for Gradual Harmonization of the Flows**: DVP flows are different economy by economy or even CSD by CSD. Whereas, standardizing DVP flows into a unique model is practically unfeasible since infrastructure, legal system and tax system vary among economies. In this respect, it is recommended that ABMF SF2 discuss best practices of DVP flows and propose a reference model of DVP flows with possible variations. When an individual economy is reconstructing bond market infrastructures, the model DVP flow could be referenced as much as possible. When developing model DVP flows, impacts to the core infrastructures such as CSD and RTGS systems should be minimized. At the same time, conversions between international standards and proprietary practices at intermediaries are also to be minimized. More harmonized DVP flows could contribute to defining requirements of interlinking gateways and/or a hub between CSD and/or RTGS systems in the future.

C. **Interest Payment Flows**

19. Interest payment and redemption flows are also different economy by economy and CSD by CSD. One of the major reasons for the different flows would be differences in the tax regime applied. It will be difficult to expect that the flows could be simply standardized to a single flow since there are fundamental differences based on different tax regimes such as capturing the tax status of investors and the legal interpretation of TWA, among others. The exemption from Withholding Tax (WHT) for non-residents has been one of the key expectations from market participants.
a) Survey on the Roles of PA, AMA, and TWA across economies: In the process of interest payment from an issuer to an investor, the PA which is designated by the issuer, transfers interest to an AMA. The AMA is generally a custodian except in those economies adopting segregated account system where all investors need to open accounts with the CSD. The TWA is responsible for payment processes of WHT to the tax office on behalf of investors. Central banks, commercial banks, CSDs, issuers and the Bureau of Treasury act as TWA. However, the specific roles of PA, AMA, and TWA vary across the economies in ASEAN+3. The different roles may not be defined uniformly since there are fundamental differences such as legal system and infrastructure in the region. In respect of cross-border STP, it is recommended that the basic roles of PA, AMA, and TWA be surveyed to find out the common elements and gaps in order to make cross-border interest payment more efficient.

b) Continued Study on Interest Payment Flows with a View to Gradual Harmonization: In addition to the survey on roles of related institutions, it is recommended that ABMF SF2 continue to discuss the differences of interest payment flows from the viewpoint of gradual harmonization. ABMF SF2 will continue to discuss commonalities and differences of interest payment flows related to cross-border collateral and repo. Also, business processes may be gradually standardized starting from less critical one such as documentation to be submitted to the authorities.

D. Message Standards including Numbering and Coding

20. Message formats in most economies in ASEAN+3 are not fully compliant with international standard yet. It is recommended that the message format be compliant with ISO 20022. ABMF members and ASEAN+3 authorities are expected to support the adoption of ISO 20022 as message standards of bond market infrastructures. The numbering and coding standards which are already registered as international standards such as ISIN and BIC are recommended to be duly adopted in ASEAN+3

a) Adoption of ISO 20022: Considering the trend of ISO 20022
implementation in major bond market infrastructures including the EU, the year around 2015-2016 could be a turning point to migrate to ISO 20022. It is recommended for ASEAN+3 economies to adopt ISO 20022 as standard message format, whenever an upgrade opportunity exists.

b) **Standardization of Message Items**: The definitions of message items are different economy by economy or even CSD by CSD. It is recommended that essential messages including settlement instruction and settlement confirmation be standardized in compliance with ISO 20022 in order to facilitate and enhance cross-border STP.

c) **Utilizing ISIN as Unique Number and Establishing Common Rules on ISIN**: All ASEAN+3 economies have National Numbering Agencies (NNAs) with full membership in the Association of National Numbering Agencies (ANNA). However, ISIN is not widely used as a standard in the economies yet. There remain differences in numbering convention and the period of disseminating the ISIN in the economies. For example, in an economy, NNA allocates an ISIN after receiving bond information from a CSD that makes the ISIN available to trustees and CSD participants on the same day by notifying it, whereas, it takes a number of additional days in other economies. There are two different ISINs for single domestic securities number in an economy. In this respect, it is recommended that ISIN be used as a unique numbering to identify bonds in each economy and that common rule be established about allocation and notification of ISIN. Cooperation with ANNA may be discussed.

d) **Promotion of BIC**: Some market infrastructures still use proprietary code for financial institution identification. It is recommended that BIC be adopted taking the opportunity of re-constructing their systems. In addition, it is desirable that each economy has a common recognition on the numbering, notification and maintenance of BIC.
E. Market Practices and Other Issues

21. There exist differences in market practices and in other issues such as investor identification and account structure. It is recommended that market practices and other issues related to bond trade and settlement continue to be discussed in respect of enhancing efficiency of the market though the market practices are not easy to standardize and some practices do not even have specific standard.

a) **Harmonization of Market Practices**: Some market practices such as settlement cycle are different across the economies. The standardization of different market practices could be an important issue in enhancing cross-border STP. In this respect, it is recommended that the policy authorities, Self Regulatory Organizations (SRO), and market participants continue to discuss different market practices for the purpose of harmonization.

b) **Investor Identification**: Identifying investors, either as residents vs. non-residents or professional investors vs. retail investors, is an important issue in some markets due to regulations on taxation, foreign exchange, and other legal and regulatory provisions. Currently, such regulations are different across the economies and it represents one of underlying factors making bond transaction flows being complicated and different across economies. In respect of STP and market efficiency, it is perceived as important to review such regulations gradually in a long term perspective together with market developments.

c) **Account Structure**: Due to differences of a bond holder’s right to claims on assets, there are some types of account: own account, customer account, pledge account, trustee account and so on. In addition, taxation has influences on account structures: non-taxable account and taxable account. Omnibus account vs. segregated account and the separation of own account and customer account are important issues. It would be difficult to standardize account structures which are stipulated according to underlying laws and regulations including tax regimes in the short term. However in
respect of cross border STP, it is perceived as important to review the account structures gradually in a long term perspective with market developments.

d) **Language for Bond Settlement Infrastructures**: English is not a common language yet in ASEAN+3 bond markets. Some economies are using local language for settlement messages. It is advisable that English be used when possible.

F. **Cross-border STP and LCY Liquidity**

22. When executing cross-border bond trades, 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 for deregulation of the controls to promote cross-border trade and settlement with improved availability of 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 cross-border collateral and repo from technological perspective including current market practices, regulatory aspects and infrastructure. The study could also include linking CSD and RTGS systems in ASEAN+3 aiming at utilizing central bank money.

a) **Promoting Cross-border Collateral and Repo Services**: Obtaining and maintaining local currency balances is critical to non-resident investors in cross-border bond investment. As a tool for accessing local currency liquidity, the importance of cross-border collateral and repo has been increasing in recent years. In this respect, it is recommended that policy measures be considered to promote cross-border collateral and repo services. It is also recommended that ABMF SF2 could conduct a study about cross-border collateral and repo services.

b) **FX and Cash Controls**: Except for HKG, JPN and SIN, there remain some FX and cash controls for bond trade and settlement in ASEAN+3 economies. Although it would not be practical to expect
significant regulation changes in the short term, it is recommendable that some of the regulations could be reviewed in respect of the bond market development in a longer term perspective. Such regulations might include FX quotas, limitations on off-shore trades, prefunding rules, regulations on overdraft, and FX reporting requirements subject to the discretion of the policy authorities.

IV. SUGGESTIONS FOR NEXT PHASE OF ABMF ACTIVITIES AND ROADMAP

A. Suggestions for Next ABMF Activities

23. The current (Phase 2) ABMF activities will conclude at the end of 2013. Considering the continued work-streams with Phase 1 and Phase 2 activities and subject to an approval by ABMI TF3 members, ABMF SF2 proposes the following topics for the next phase (Phase 3) of its activities.

a) Work on Harmonizing Message Flows: ABMF SF2 will develop a reference DVP model flow through the discussion of best practices in ASEAN+3. The scope of the DVP flow to be proposed as the reference model is to be from pre-settlement matching to bond and cash settlement. When discussing harmonization of message flows, regulatory barriers preventing the DVP flow from STP will also be identified.

b) Work on Standardizing Message Items: ABMF SF2 will discuss the standardization of the basic message items of critical messages such as settlement instruction and settlement confirmation, in reference to ISO 20022. Message items of bond trade and settlement infrastructures are to be studied to have a common understanding on each message.

c) Study on Harmonization of Market Practices: ABMF SF2 will be engaged in a study to promote harmonization of market practices in ASEAN+3. Specific market practices to be discussed will be chosen from the viewpoint of promoting cross-border STP. Settlement cycles
in line with FX spot dates and time period between record date and payment date could be candidates to be studied. In carrying out the study, institutional framework for the cooperation with SROs and other related organizations would be explored.

d) **Study on Cross-border Collateral and Repo Services:** For the benefit of further development in the cross-border collateral and repo markets, ABMF SF2 will study the current market practices, related legal and regulatory aspects, and infrastructures, with an aim to identifying best practices and providing policy recommendations. The study could also include cross-border collateral and repo services linking CSD and RTGS systems. Interest payment flows related to cross-border collateral and repo services linking CSD and RTGS systems will also be studied.

B. **Roadmap and Future Work Plan**

24. In relation to the suggested next phase of ABMF activities, ABMF SF2 would like to propose the following roadmap and work plan, subject to the approval by the ABMI TF3 members.

a) **Short Term (2013):** Preparation for Phase 3 activities
   - Conducting further studies on the proposed three topics of a)-c) for future activities
   - With respect to the proposed topic d), scope of cross-border collateral and repo linking bond market infrastructures will be determined. A meeting to discuss cross-border collateral and repo services will be held by the participants from central banks in order to show possible directions of such services linking CSD and RTGS systems in ASEAN+3. The first central bank meeting will be held back-to-back with the 13th ABMF in July 2013.
   - Completing phase 2 report

b) **Medium Term (2014-2015):** Providing proposals for the harmonization of ASEAN+3 bond markets
   - Proposal on a reference model of DVP flows
Proposal on ISO 20022 adoption of message items
Proposal on harmonizing market practices, where possible
Proposal on cross-border collateral and repo services

c) Long Term (After 2015): Implementation of international standards
• Upgrade or reconstruction of bond market infrastructures in accordance with International standard (ISO 20022) in some of the economies
• Progress in harmonization of market practices such as settlement cycle
• Progress in discussion on linkage of bond market infrastructures in the region

V. CONCLUSION

25. With a long term vision of enhancing STP in the region, ABMF SF2 have continued work on identifying bond transaction flows and collecting the related information and data. Through Phase 1 and Phase 2 activities, comprehensive information on DVP transaction flows, interest payment and redemption flows, information on messaging format and items including numbering and coding, and market practices have been collected. In addition, fit and gap analysis was conducted on typical transaction flows to see the differences in the current flows from international standards.

26. The information and data accumulated through Phase 1 and Phase 2 AMBF SF2 activities will be utilized as substantial and practical references in pursuing the harmonization of transaction flows and market practices. As an immediate output of the collected information and the fit and gap analysis, ABMF SF2 members identified policy recommendations in the area of bond market infrastructures, DVP flows, interest payment flows, message standards, numbering and coding, market practices and other issues, and cross-border STP and local currency liquidity. ABMF SF2 members hope the suggested recommendations could be a good reference for the policy authorities in designing and implementation bond market policies.

27. The current Phase 2 ABMF activity will conclude by the end of 2013. For the next phase (Phase 3) activities, four topics are proposed; i) work on harmonizing
message flows including developing a reference DVP model flow, ii) discussion on standardizing message items including numbering and cording, iii) study on harmonization of market practices in respect of enhancing STP, and iv) study on cross-border collateral and repo markets. ABMF SF2 members seek approval by the ABMI TF3 members on the proposed topics for the Phase 3 together with their continued support for the SF2 activities.

28. A full report on ABMF SF2 Phase2 activities including detailed information and diagrams on transaction flows for each economy will be produced by the end of 2013 to be submitted to ABMI TF3 members.
List of ABMF SF2 Members for Phase 2 Activities

### Table 5: ABMF SF2 Members

<table>
<thead>
<tr>
<th>COUNTRY / ECONOMY</th>
<th>MEMBERSHIP CATEGORY</th>
<th>ORGANIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunei Darussalam</td>
<td>NM</td>
<td>Autoriti Monetari Brunei Darussalam</td>
</tr>
<tr>
<td>Cambodia</td>
<td>NM</td>
<td>Securities and Exchange Commission of Cambodia (SECC)</td>
</tr>
<tr>
<td></td>
<td>NE</td>
<td>China Central Depository &amp; Clearing Co., Ltd. (CCDC)</td>
</tr>
<tr>
<td></td>
<td>NE</td>
<td>China Foreign Exchange Trade System / National Interbank Funding Center</td>
</tr>
<tr>
<td></td>
<td>NE</td>
<td>China Securities Depository and Clearing Corporation Limited Shanghai (CSDCC)</td>
</tr>
<tr>
<td>China, PRC</td>
<td>NM</td>
<td>China Security Regulatory Commission</td>
</tr>
<tr>
<td></td>
<td>NM</td>
<td>Hong Kong Monetary Authority (HKMA)</td>
</tr>
<tr>
<td></td>
<td>NM</td>
<td>National Association of Financial Market Institutional Investors (NAFMII)</td>
</tr>
<tr>
<td></td>
<td>NE</td>
<td>Shanghai Clearing House (SHCH)</td>
</tr>
<tr>
<td>Indonesia</td>
<td>NM</td>
<td>Capital Market and Financial Institutions Supervisory Board, Ministry of Finance</td>
</tr>
<tr>
<td></td>
<td>NE</td>
<td>Indonesia Central Securities Depository</td>
</tr>
<tr>
<td></td>
<td>NE</td>
<td>Indonesia Clearing and Guarantee Corporation</td>
</tr>
<tr>
<td></td>
<td>NE</td>
<td>Indonesia Stock Exchange</td>
</tr>
<tr>
<td></td>
<td>NM</td>
<td>Ministry of Finance</td>
</tr>
<tr>
<td>Japan</td>
<td>NM</td>
<td>Japan Securities Depository Center, Inc.</td>
</tr>
<tr>
<td></td>
<td>NE</td>
<td>Mizuho Corporate Bank, Ltd.</td>
</tr>
<tr>
<td>Korea</td>
<td>NE</td>
<td>Korea Exchange (KRX)</td>
</tr>
<tr>
<td></td>
<td>NM</td>
<td>Korea Securities Depository (KSD)</td>
</tr>
<tr>
<td></td>
<td>NE</td>
<td>KOSCOM</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>NM</td>
<td>Ministry of Finance, Lao PDR</td>
</tr>
<tr>
<td></td>
<td>NM</td>
<td>Securities and Exchange Commission Office, Bank of the Lao PDR</td>
</tr>
<tr>
<td>Malaysia</td>
<td>NM</td>
<td>Bond Pricing Agency Malaysia (BPAM)</td>
</tr>
<tr>
<td>COUNTRY / ECONOMY</td>
<td>CATEGORY</td>
<td>ORGANIZATION</td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Republic of the Union of Myanmar</td>
<td>NM</td>
<td>Central Bank of Myanmar</td>
</tr>
<tr>
<td>Philippines</td>
<td>NM</td>
<td>Bankers Association of the Philippines (BAP)</td>
</tr>
<tr>
<td></td>
<td>NE</td>
<td>OMGEO</td>
</tr>
<tr>
<td></td>
<td>NM</td>
<td>Philippine Dealing System Holdings Corp. / PDS Group</td>
</tr>
<tr>
<td>Singapore</td>
<td>NM</td>
<td>Singapore Exchange (SGX)</td>
</tr>
<tr>
<td>Thailand</td>
<td>NM</td>
<td>The Stock Exchange of Thailand (SET)</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>NM</td>
<td>Hanoi Stock Exchange (HNX)</td>
</tr>
<tr>
<td></td>
<td>NM</td>
<td>Vietnam Securities Depository (VSD)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BNP Paribas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clearstream</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Citibank</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Deutsche Bank AG</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Euroclear</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HSBC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>J.P. Morgan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>State Street Bank and Trust</td>
</tr>
<tr>
<td></td>
<td></td>
<td>State Street Global Advisors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SWIFT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Bank of Tokyo Mitsubishi UFJ Ltd.</td>
</tr>
</tbody>
</table>
**SF2 Member Feedback (up to 19 Apr 2013)**

<table>
<thead>
<tr>
<th>Comments</th>
<th>Response</th>
<th>Remaining issues</th>
<th>No.</th>
</tr>
</thead>
</table>
| **Koji Kawashima and Yohei Kitano**  
**MOFJ**  

B. Roadmap and future work plan (page 25) should be as follows:                                                                                                                               | Reflect    | None              | 1   |
| 1) Short Term (2013): Preparation for Phase 3 activities  
• Conducting further study on the proposed four topics of phase 3 activities  
  • With respect to 1) – 3), further study will be made.  
  • With respect to 4), scope of cross-border collateral and repo linking bond market infrastructures will be determined. A meeting to discuss cross-border collateral and repo services will be held by the participants from central banks in order to show possible directions of such services in ASEAN+3. The first central bank meeting will be held back-to-back with the 13th ABMF in July 2013.  
• Completing phase 2 report                                                                                                                                                                      |            |                   |     |
• Proposal on a reference model of DVP flows                                                                                                                                                       |            |                   |     |
• Proposal on ISO 20022 adoption of message items                                                                                                                                                   |            |                   |     |
• Proposal on harmonizing market practices, where possible                                                                                                                                              |            |                   |     |
• Proposal on cross-border collateral and repo services                                                                                                                                               |            |                   |     |
<table>
<thead>
<tr>
<th>Comments</th>
<th>Response</th>
<th>Remaining issues</th>
<th>No.</th>
</tr>
</thead>
</table>
| Jonathan Rodda  
State Street  
The Policy Recommendations are well stated. I support their tenet which is to advocate the adoption of best practices as far as practically possible. | Appreciate supportive comment | None | 2 |
| Jonathan Rodda  
State Street  
The roadmap and work plan are well stated. I think the use of dates is well judged, offering a timeline structure for the activities of ABMF, but without implying implementation deadlines which presumably will be a matter for ASEAN+3 governments. | Agree with the comment. No specific implementation deadline will be proposed since it should be under discretion of each infrastructure operator and its authorities. | None | 3 |
| Boon-Hion Chan  
Deutsch Bank  
Insightful and highly informative document.  
What the summary shows are all highly relevant to the promotion of a more efficient operations of Asean+3 bond market. There are clear focus on bond market infrastructure like PSMS, technical areas like message standards, and process areas like interest payment flows. | Appreciate supportive comment | None | 4 |
| Boon-Hion Chan  
Deutsch Bank  
#1. Regulatory Enablers for Reference Model for DVP flows  
Operational flows and market practices can reflect the regulatory requirements. For example, where there are | Points are well taken. When discussing harmonization of message flows, regulatory barriers preventing the DVP flow from STP will also be identified and discussed. | To be further discussed during Phase 3 | 5 |
<table>
<thead>
<tr>
<th>Comments</th>
<th>Response</th>
<th>Remaining issues</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>suggestions of STP, STP-ing may not be possible currently because of documentary requirements eg/ for tax reclaim purposes. Suggestions of pre-settlement matching may need to consider the legal implications (is it only to match information quality, does it create a earmark or does it create any ownership implications) Therefore, while regulatory implications have not been a focus for SF2, it can better anchor the development of a reference model (page 25, point a) if Phase 3 activities can include high-level mapping of regulatory considerations to areas identified for STP or to be changed. Having the key regulatory areas identified next to each major process area can provide depth/identify regulatory enablers for such a reference model.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boon-Hion Chan Deutsch Bank #2. Benefits that the Market can see regarding standardising market practices. We believe that AMBF and SF2 work can make Asean+3 bond market a better place to issue and invest. The focus on operational flows can realise efficiency benefits. However, an impression from reading the recommendation is that benefits for the markets are relatively long term. Settlement cycles, cut-off time, fail rules are all heavy long-term topics (page 25, point c). While these are key and important, a question would be if</td>
<td>We all know that market practices such as settlement cycle, cut-off time, and fail rule are extremely hard to harmonize. Standardising the time period between Record Date and Payment Date across all countries could be one of the candidates for SF2 discuss harmonization of market practices. Market practice parts are revised to reflect comments from you and other members.</td>
<td>The final position to be discussed and confirmed with the members</td>
<td>6</td>
</tr>
<tr>
<td>Comments</td>
<td>Response</td>
<td>Remaining issues</td>
<td>No.</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------</td>
<td>------------------</td>
<td>-----</td>
</tr>
<tr>
<td>there are any targeted (immediate) benefits for the market/investors for Phase 3? Readers of the final document could be looking for benefits that they can be closer to realisation, as much as they look for the technical ones. As an example, within the current proposal to standardise market practices, what about standardising the time period between Record Date and Payment Date across all countries? The certainty of cash flows could help investors in their cash management and possibly FX.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Margeret M. Tang KSEI</td>
<td></td>
<td>None</td>
<td>7</td>
</tr>
<tr>
<td>Figure 1 on the TRADE - should be similar to figure 2 (corporate bonds) where Trading for government bonds can be done either in OTC or IDX (exchange), and for Trades done in IDX, then TRADE PREMATCHING is done at KSEI, clearing at KPEI</td>
<td>Reflected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Figure 2, either trade is done in IDX or OTC, TRADE PREMATCHING is done at KSEI (not KPEI), and only trades done in IDX that is cleared in KPEI. Trades done in OTC is not cleared in KPEI</td>
<td>Reflected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Margeret M. Tang KSEI</td>
<td></td>
<td>None</td>
<td>8</td>
</tr>
<tr>
<td>In ID, all bonds (government and corporate) are subject to WHT on the capital gain and interests. WHT are deducted at source on capital gain (at the point of sale and at the point of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td>Response</td>
<td>Remaining issues</td>
<td>No.</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>-----</td>
</tr>
<tr>
<td>redemption),</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taketoshi Mori</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BTMU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P7 In the chart</td>
<td>Points are well noted. This will be an important issue when drafting “reference DVP flow”. Redundant flows will also be identified and removed where possible.</td>
<td>To be discussed during phase 3 activities.</td>
<td>9</td>
</tr>
<tr>
<td>This is my same comment as before. This process is STP between PSMS and CSD. The affirmation/Settlement Instruction is redundant if we receive the pre-matched result from Pre-settlement Matching System.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taketoshi Mori</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BTMU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P20 paragraph 19</td>
<td>The exemption from WHT for non-residents has been one of the most important background of different and complex interest payment flows, although is not a part of direct interest payment flows. Therefore, it is suggested that SF2 to conduct a survey study on the flows focusing on cross border collateral as one of the phase 3 activities.</td>
<td>None</td>
<td>10</td>
</tr>
<tr>
<td>The sentence ‘The exemption from Withholding Tax (WHT) for non-residents has been one of the key expectations from market participants’ is not directly related to Interest Payment Flows. This message is very important. But I think it is mentioned in other section.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taketoshi Mori</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BTMU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P21 paragraph 19</td>
<td>It is not directly targeted to harmonize PA, AMA, and TWA, which would not be practical. Rather, it would be appropriate to survey the differences and similarities on those institutions, as so sharing information on best practices and common elements, as a general reference in reviewing the role of those institutions.</td>
<td>The final position to be discussed and confirmed with the members</td>
<td>11</td>
</tr>
<tr>
<td>Comments</td>
<td>Response</td>
<td>Remaining issues</td>
<td>No.</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>I think it is not possible to harmonize Interest Payment Flows which is very unique and related with tax issues.</td>
<td>I agree with you that harmonizing interest payment flows would never be easy. However, I think it would be worthwhile sharing visions on harmonizing the flows in long term perspective. In addition, considering the complexity of this issue, the area to be discussed by the ABMF on interest payment will be limited only to cross-border collateral related topics.</td>
<td>The final position to be discussed and confirmed with the members</td>
<td></td>
</tr>
</tbody>
</table>
| **Taketoshi Mori**  
BTMU  
P23 paragraph 21  
Harmonization of Market Practices:  
Harmonization of Cut off time and fail rule is not useful to enhance cross-border STP.  
I ask you to reconsider these items. | Deleted cut off time and fail rule following your comments.  
Benefits of harmonization of cut off time and fail rule are small in current segregated market situation. However, in longer-term perspective, when markets get more interactive, for instance, in case CSD and RTGS systems are linked, harmonization of cut-off time and fail rule would become more important. This could be discussed as the market and discussion develops. | The final position to be discussed and confirmed with the members | 12   |
| **Taketoshi Mori**  
BTMU  
P23 paragraph 21  
Investor Identification:  
Investor Identification should request very high confidentiality for person. It is not possible to use this ID as for settlement data in our market.  
It must be careful to discuss further. And what kind of STP or efficiency we can get about ID issue? | This part is prepared to convey the message on the need to de-regulate such regulations requiring investor identification as resident/non-resident or professional/retail investors, in long term perspective. It does not aiming to say that we need to standardize | The final position to be discussed and confirmed with the members | 13   |
<table>
<thead>
<tr>
<th>Comments</th>
<th>Response</th>
<th>Remaining issues</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taketoshi Mori&lt;br&gt;BTMU&lt;br&gt;P23 paragraph 21&lt;br&gt;Account Structure:&lt;br&gt;It is better to admit omnibus account structure. Other harmonization of account structure is not beneficial to improve efficiency and STP.</td>
<td>It is not clear whether just adopting anonymous account structure would be a solution.&lt;br&gt;Account structure is important issue for cross-border STP in particular cross-border collateral. When accrued interest payment is effected, characteristics of each pledged account need to be considered, etc.&lt;br&gt;Benefits of harmonization of account structure would be small in current market situation. However, in longer-term perspective, when markets get more interactive, for instance, in case CSD and RTGS systems are linked, harmonization of account structure would become more important. This could be discussed as the market and discussion develops.</td>
<td>The final position to be discussed and confirmed with the members</td>
<td>14</td>
</tr>
<tr>
<td>Taketoshi Mori&lt;br&gt;BTMU&lt;br&gt;P24 paragraph 22&lt;br&gt;I totally agree with removing FX and Cash Controls.</td>
<td>Points are well taken</td>
<td>None</td>
<td>15</td>
</tr>
<tr>
<td>Taketoshi Mori&lt;br&gt;BTMU&lt;br&gt;P25 paragraph 23&lt;br&gt;Cut off time and fail rule is same as above. It is not useful.</td>
<td>Deleted. Please refer the earlier response on cut-off time, too.</td>
<td>The final position to be discussed and confirmed with the members</td>
<td>16</td>
</tr>
<tr>
<td>Comments</td>
<td>Response</td>
<td>Remaining issues</td>
<td>No.</td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>-----------------</td>
<td>-----</td>
</tr>
</tbody>
</table>
| Taketoshi Mori  
BTMU  
P25  paragraph 23  
Interest payment flow is not useful to STP. | Please refer the response to your earlier comments on interest payment  
As stated in the earlier response to the comment, the reason why the survey of interest payment flow was chosen as phase 2 activities was because it was an important corporate action conducting coupon payment to the investor. As a result of the survey, it was revealed that the flows including WHT payment are different economy by economy and could be one of the barriers in the markets for more active cross-border bond transaction and in achieving cross-border STP. | The final position to be discussed and confirmed with the members | 17 |
| Mike Tagai  
J.P.Morgan  
Page v  
FIT Gap analyses are done against a benchmark so it is better to state what the benchmark was. | The benchmark is explained in the body part. Please refer to paragraph 9. | None | 18 |
| Mike Tagai  
J.P.Morgan  
Page vi  
SSS has different meanings when they are used by different regulators. It is better not to use the term in Asia unless the definition is clearly stated. | CSD system is used instead of SSS. | None | 19 |


<table>
<thead>
<tr>
<th>Comments</th>
<th>Response</th>
<th>Remaining issues</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page iv</td>
<td>“Such harmonization could be utilized for defining requirements of interlinking gateways and/or a hub between CSD and/or RTGS systems in the region.”</td>
<td>Yes, we think it is one of important objectives to conduct fit and gap analysis.</td>
<td>None</td>
</tr>
<tr>
<td>Mike Tagai J.P.Morgan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page vii</td>
<td>Compliant or compatible Migration or adoption</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I believe that the term compliant used throughout the document is not appropriate in tone. Each national message schema is not wrong. It is just that they are different.</td>
<td>We are not saying right or wrong when mentioning “compliant” or “migration” We are not trying to “forcing them” but just “recommending”. It is to deliver the message that there is a need to regard ISO 20022 as the target message standard. Please provide specific wording for more appropriate expression.</td>
<td>The final position to be discussed and confirmed with the members</td>
</tr>
<tr>
<td></td>
<td>Same as above. Migration comes after a community agrees to adopt a new standard. You cannot be seen as trying to force migration.</td>
<td>We understand that the decision of adoption and migration should be made under the discretion of individual operators and their authorities in ASEAN+3. Also, migration schedule and plan are also to be decided by each infrastructure operator and its authorities.</td>
<td></td>
</tr>
<tr>
<td>Mike Tagai J.P.Morgan</td>
<td></td>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Comments</th>
<th>Response</th>
<th>Remaining issues</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page vii</td>
<td>Market practices</td>
<td>Reflected. Please refer the response above to the same points.</td>
<td>The final position to be discussed and confirmed with the members</td>
</tr>
<tr>
<td>Mike Tagai</td>
<td>J.P. Morgan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page vii</td>
<td>On the other hand, with tightening regulations on collateral in recent years, demands for cross-border collateral and cross-border repo services have been increasing in the ASEAN+3 economies. I think this sentence is misleading. What does tightening regulation on collateral mean? Does it mean that there is increased need for collateral by the CCPs? In that case, the need in ASEAN+3 is for cash collateral and not securities collateral. Demand for international securities may have increased but not cross-borders. Given the inconsistency, suggest to rework this part.</td>
<td>Reflected to incorporate the point. Please review.</td>
<td>None</td>
</tr>
<tr>
<td>Mike Tagai</td>
<td>J.P. Morgan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page vii</td>
<td>“from technological perspective”</td>
<td>Reflected as “from the viewpoint of business flows”</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Do not understand what technological means but it would be</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Comments</th>
<th>Response</th>
<th>Remaining issues</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>useful to understand the business flows</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mike Tagai</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J.P. Morgan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page viii</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d) Survey on cross-border collateral, repo, and DVP</td>
<td>The title and description has been changed to follow the comments. Please review.</td>
<td>None</td>
<td>25</td>
</tr>
<tr>
<td>The title of the paragraph and the content is not consistent. The term of cross border collateral is loosely used and requires careful definition in scope first.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mike Tagai</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J.P. Morgan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page 2 paragraph 8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Central bank related</td>
<td>Footnote is added.</td>
<td>None</td>
<td>26</td>
</tr>
<tr>
<td>Related is not a right word just as exchange related is not a right term. Is it owned? Operated? Governed?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mike Tagai</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>J.P. Morgan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page 18 paragraph 17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“are not fully implemented yet” to be changed “do not exist in many economies”.</td>
<td>We think the current expression would be more appropriate and consistent with other part.</td>
<td>The final position to be discussed and confirmed with the members</td>
<td>27</td>
</tr>
<tr>
<td>“Such infrastructures may be introduced considering a variety of conditions including the level of trade value, trade volume, and number of market participants” needs to be added “as each market grows and the need for better visibility and risk considerations grow”.</td>
<td>There are some more general reasons, for example efficiency, funding cost, and so on, other than visibility and risk.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td>Response</td>
<td>Remaining issues</td>
<td>No.</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------</td>
<td>-----</td>
</tr>
<tr>
<td>Mike Tagai J.P.Morgan</td>
<td>At the same time, introduction of CCP in exchanges might be also considered in relation with other instruments such as equity. I would take this sentence out since it talks about equity.</td>
<td>None</td>
<td>28</td>
</tr>
<tr>
<td>Page 18 paragraph 17</td>
<td>It is to share CCP function together with equity that can change the business viability of establishing a CCP for bonds. It also comes from some of other members view expressed during the meeting.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mike Tagai J.P.Morgan</td>
<td>At the same time, conversions at intermediaries are also to be minimized. Do not understand the meaning of conversions</td>
<td>None</td>
<td>29</td>
</tr>
<tr>
<td>Page 20 paragraph 18</td>
<td>Reflected to incorporate your point.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mike Tagai J.P.Morgan</td>
<td>However in respect of cross border STP, it is perceived as important to review the account structures gradually in a long term perspective with market developments. There is not much that account structure can help to enhance STP as long as the structure is known and the processing party can identify the investor and identify the security</td>
<td>The final position to be discussed and confirmed with the members</td>
<td>30</td>
</tr>
<tr>
<td>Page 23 paragraph 21</td>
<td>Account structure is important issue for cross-border STP in particular cross-border collateral. When accrued interest payment is effected, characteristics of each pledged account need to be considered, etc. Benefits of harmonization of account structure would be small in current market situation. However, in longer -term perspective, when markets get more interactive, for instance, in case CSD and RTGS systems are linked, harmonization of account</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td>Response</td>
<td>Remaining issues</td>
<td>No.</td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>-----------------</td>
<td>-----</td>
</tr>
</tbody>
</table>
| Mike Tagai J.P.Morgan  
Page 24 paragraph 21  
4) Language for bond settlement infrastructure.  
It is advisable that English be used when possible  
Delete “when possible” | Some of the economies cannot accept English yet, and to consider such economies “when possible” is needed. If all members agree on getting rid of “when possible” then we can delete it. | The final position to be discussed and confirmed with the members | 31 |
| Mike Tagai J.P.Morgan  
Page 24 paragraph 22  
On the other hand, with tightening regulations on collateral in recent years, demands for cross-border collateral and cross-border repo services have been increasing in the ASEAN+3 economies.  
As before this sentence is factually incorrect and has several elements bundled in one | Reflected. Please review. | None | 32 |
| Mike Tagai J.P.Morgan  
Page 25 paragraph 22  
linking CSDs in ASEAN+3 aiming at utilizing central bank money  
Is this meant to say the linkage of central banks to CSDs or | Yes. But the expression has been modified to make the meaning clearer. Utilizing central bank money for settlements is one of the suggestions referred in BIS/IOSCO FMI principle. Linking CSD and RTGS | None | 33 |
<table>
<thead>
<tr>
<th>Comments</th>
<th>Response</th>
<th>Remaining issues</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSDs to CSDs?</td>
<td>systems in ASEAN+3 is aiming at utilizing central bank money’</td>
<td>None</td>
<td>34</td>
</tr>
<tr>
<td>Mike Tagai J.P.Morgan Page 25 paragraph 23</td>
<td>2) Work on Standardizing Message Items: I thought this piece of work had concluded through the fit and gap analysis.</td>
<td>During the phase 2, only how to make fit &amp; gap analysis of message items are explained and shared by using 10 common elements. More specific study focusing on specific services needs to be done at the next phase.</td>
<td>None</td>
</tr>
<tr>
<td>Mike Tagai J.P.Morgan Page 25 paragraph 23</td>
<td>ABMF SF2 will be engaged in a study to promote harmonization of market practices including settlement cycle, cut off time, and fail rule in ASEAN+3. Need to understand how these three came up as the latter two do not need harmonization. They only need to be visible to the market</td>
<td>Deleted and reflected. Please refer earlier response to the same point. Benefits of harmonization of cut off time and fail rule are explained to Mr. Mori’s comment earlier.</td>
<td>The final position to be discussed and confirmed with the members</td>
</tr>
<tr>
<td>Mike Tagai J.P.Morgan Page 26 paragraph 23</td>
<td>The study also includes survey on commonalities and differences of interest payment flows related to cross-border collateral and repo.</td>
<td>Interest payment flows in particular tax related matters are difficult to gain traction. Therefore, instead of standardizing it, current situation will be studied by limiting the scope to cross-border collateral. The description is changed to clarify the scope.</td>
<td>None</td>
</tr>
<tr>
<td>Comments</td>
<td>Response</td>
<td>Remaining issues</td>
<td>No.</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td>------------------</td>
<td>-----</td>
</tr>
<tr>
<td>If it is going to involve tax implications, it may difficult to gain traction.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mike Tagai J.P.Morgan</td>
<td></td>
<td></td>
<td>37</td>
</tr>
<tr>
<td>Page 27 paragraph 24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Proposal on standardizing market practices, where possible</td>
<td>Reflected to incorporate the point.</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>I thought we agreed to say “agree upon best practices in the market”</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mike Tagai J.P.Morgan</td>
<td></td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>Page 27 paragraph 24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Progress in discussion on linkage of bond market infrastructures in the region.</td>
<td>TF3’s discussion on linkage of bond market infrastructure will be more from harmonization and standardization technical aspect. Whereas, TF4’s discussion is expected to be more on structural side. However, collaboration and demarcation between TF3 and TF4 should be discussed as discussion at both TF proceeds.</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>Is this scope creep to TF4 matters?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taiji Inui ADB consultant for SF2 from NTT DATA Corporation</td>
<td></td>
<td></td>
<td>39</td>
</tr>
<tr>
<td>Page vi, P3 and 18 paragraph 8 and 17</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In general, robust and sound bond market infrastructures such as Securities Settlement System (SSS) and Real Time Gross Settlement (RTGS) system are already implemented in the surveyed 10 economies. However, infrastructure components for further efficiency and risk reduction purposes, such as Pre-Settlement Matching System (PSMS), Central Counterparty (CCP), and Trade Repository (TR) are not implemented yet in most of the economies.

Automated Trading System (TS) to be added after Trade Repository (TR)

Le Thi Thuy Hang
VSD

P14 paragraph 12
3) “Settlement Date” is mandatory for all CSDs except for VSD, but VSD calculates the settlement date within their system on the basis of Trade Date.

According to our regulation on clearing and settlement, in VSD’s system, “trade date” and “settlement date” are mandatory items. Whenever a trade is received from Stock Exchange, the settlement date will be automatically calculated on the basis of trade date. VSD’s reports to members on securities multilateral netting and settlement that are extracted from the system include information of “trade date” and “settlement date”. Therefore, we would highly appreciate if you could modify the sentence as “Settlement Date” is mandatory for all CSDs.

Taiji Inui
ADB consultant for SF2 from NTT DATA Corporation

Editorial comments: Starting capital letter for nouns of title phrase with bold characters, etc.
<table>
<thead>
<tr>
<th>Comments</th>
<th>Response</th>
<th>Remaining issues</th>
<th>No.</th>
</tr>
</thead>
</table>
| Taiji Inui  
ADB consultant for SF2 from NTT DATA Corporation  
Page 9, paragraph 9  
· “Cash Settlement Instruction Data” are not forwarded from RTGS system to the sell side and/or buy side after receiving the data from the CSD except for KR. RTGS system forwards “Cash Settlement Instruction Data” to the sell side and buy side for both government and corporate bonds only in KR.  
The above is corrected to the following.  
10) “Cash Settlement Instruction Data” are not forwarded from RTGS system to the sell side and/or buy side after receiving the data from the CSD except for JP and KR. | Reflected. | None | 42 |
| Nellie Dagdag  
Omgeo  
Page iii, page vi, page 2 and paragraph 7  
:”Republic of Philippines” to be “: Republic of the Philippines” | Reflected | None | 43 |
| Nellie Dagdag  
Omgeo  
page 3 and paragraph 8  
· JP, and KR have already implemented automated Pre-Settlement Matching Systems (PSMS) for both | Reflected | None | 44 |
government and corporate bonds. SG also has implemented such kind of system for corporate bond.

The above to be changed to the following:

- JP, KR, and PH have already implemented automated Pre-Settlement Matching Systems (PSMS) for both government and corporate bonds. SG also has implemented such kind of system for corporate bond.

Footnote for KR and PH are “Partial pre-settlement matching system”

<table>
<thead>
<tr>
<th>Comments</th>
<th>Response</th>
<th>Remaining issues</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>In CN, PH and SG, both types of matching are adopted for both government and corporate bonds. In JP, local matching is adopted for government bonds and central matching is adopted for corporate bonds. Following footnote is added to PH.</td>
<td>Reflected</td>
<td>None</td>
<td>45</td>
</tr>
<tr>
<td>In PH, central matching is mandatory for trades received from PDEx (government and corporate bonds). But, for FOP trades, the parties decide whether to use local or central matching.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Nellie Dagdag
Omgeo

Page 8, paragraph 9

Page 8 paragraph 9
<table>
<thead>
<tr>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Following note is added to PH:</td>
</tr>
<tr>
<td>For PH, settlement is notified to the counterparties via a change in the trade status which parties can view online. Reports on settled trades can also be generated and printed from the settlement system.</td>
</tr>
<tr>
<td>Nellie Dagdag</td>
</tr>
<tr>
<td>Omgeo</td>
</tr>
<tr>
<td>Page 14, paragraph 13</td>
</tr>
<tr>
<td>Following sentence is added.</td>
</tr>
<tr>
<td>In PH, BIC is used only for cash settlement instructions sent to the central bank’s RTGS system.</td>
</tr>
<tr>
<td>Nellie Dagdag</td>
</tr>
<tr>
<td>Omgeo</td>
</tr>
<tr>
<td>Page 19, paragraph 17</td>
</tr>
<tr>
<td>For those economies without a TR, it is advisable to consider establishing it when market develops significantly.</td>
</tr>
<tr>
<td>The above to be the following:</td>
</tr>
<tr>
<td>For those economies without a TR and for transactions done outside an exchange or organized trading system, it is advisable to consider establishing it when market develops significantly.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflected</td>
</tr>
<tr>
<td>Reflected</td>
</tr>
<tr>
<td>Point well noted but not reflected yet</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Remaining issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
</tr>
<tr>
<td>None</td>
</tr>
<tr>
<td>The final position to be discussed and confirmed with the members.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>47</td>
</tr>
<tr>
<td>48</td>
</tr>
<tr>
<td>49</td>
</tr>
</tbody>
</table>
1) Enhancing STP in CSD related data flows: Entering settlement instruction data to CSD is not automated yet in many economies and it is recommended that CSDs be connected with upstream infrastructures such as PSMS in order to promote STP in each economy. In such a case, redundant message flows may be identified and removed where possible.

The above is to be as follows:

1) Enhancing STP in CSD related data flows: Entering settlement instruction data to CSD is not automated yet in many economies and it is recommended that CSDs be connected with upstream infrastructures such as PSMS or trading system in order to promote STP in each economy. In such a case, redundant message flows may be identified and removed where possible.

<table>
<thead>
<tr>
<th>Comments</th>
<th>Response</th>
<th>Remaining issues</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nellie Dagdag Omgeo</td>
<td>Point well noted but not reflected yet</td>
<td>The final position to be discussed and confirmed with the members.</td>
<td></td>
</tr>
<tr>
<td>Page 21 paragraph 19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The AMA is generally a custodian except in those economies adopting segregated account system where all investors need to open accounts with the CSD. This (the above) is actually not very accurate for the Philippines. Bonds held through custodians do not constitute the majority of holdings for local investors. While investors are not required to open direct accounts with the registry, the BSP circular 392 (ironically on custodianship) led to more direct accounts at the registry (RoSS or PDTC) to avoid custody.</td>
<td>Point well noted. In reality, PH could be similar to segregated account structure for domestic participants though non-residents use custodians. Since whether a participant use custodian or directly open account in the CSD depends on the participants discretion, current description is correct.</td>
<td>None</td>
<td>50</td>
</tr>
<tr>
<td>Comments</td>
<td>Response</td>
<td>Remaining issues</td>
<td>No.</td>
</tr>
<tr>
<td>----------</td>
<td>----------</td>
<td>------------------</td>
<td>-----</td>
</tr>
<tr>
<td>cost.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Nellie Dagdag  
Omgeo  
Page 21 paragraph 19  
The TWA is responsible for payment processes of WHT to the tax office on behalf of investors. Central banks, commercial banks, CSDs, issuers and the Bureau of Treasury act as TWA. | Reflected | None | 51 |
| Nellie Dagdag  
Omgeo  
Page 23, paragraph 21  
2) Investor Identification: Identifying investors, either as residents vs. non-residents or professional investors vs. retail investors, is an important issue in some markets due to regulations on taxation, foreign exchange, and other legal and regulatory provisions. Currently, such regulations are different across the economies and it represents one of underlying factors making bond transaction flows being complicated and different across economies. In respect of STP and market efficiency, it is perceived as important to review such regulations gradually in a long term perspective together with market developments.  
2) Investor Identification: Identifying investors, either as residents vs. non-residents or professional investors vs. retail investors, is an important issue in some markets due to regulations on taxation, foreign exchange, and other legal and regulatory provisions. Currently, such regulations are different across the economies and it represents a major factor making bond transaction flows being complicated and different across economies. | Point well noted but not reflected yet | The final position to be discussed and confirmed with the members. | 52 |
<table>
<thead>
<tr>
<th>Comments</th>
<th>Response</th>
<th>Remaining issues</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>economies. <em>It affects both</em> STP and market efficiency, <em>thus,</em> it is perceived as important to <em>prioritize a review of</em> such regulations gradually in a long term perspective together with market developments.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nellie Dagdag Omgeo</td>
<td>Page 25, paragraph 23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) <strong>Study on Harmonization of Market Practices: ABMF SF2</strong> will be engaged in a study to promote harmonization of market practices in ASEAN+3. Specific market practices to be discussed will be chosen from the viewpoint of promoting cross-border STP. Settlement cycles in line with FX spot dates and time period between record date and payment date could be candidates to be studied. In carrying out the study, institutional framework for the cooperation with SROs and other related organizations would be explored. Please note to include in the future study the timeliness of assigning/publishing security identifier for purposes of trading.</td>
<td>Point well noted. Regarding ISIN, following is recommended. It is recommended that ISIN be used as a unique numbering to identify bonds in each economy and that common rule be established about allocation and notification of ISIN. Cooperation with ANNA may be discussed.</td>
<td>To be further discussed during phase 3.</td>
<td>53</td>
</tr>
<tr>
<td>Taiji Inui ADB consultant for SF2 from NTT DATA Corporation</td>
<td>Page 8 footnote FY2015 is removed.</td>
<td>Reflected</td>
<td>None</td>
</tr>
<tr>
<td>Susan Monteagudo ADB secretariat team</td>
<td>Editorial correction for all pages</td>
<td>Reflected</td>
<td>None</td>
</tr>
<tr>
<td>Jason Lee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comments</td>
<td>Response</td>
<td>Remaining issues</td>
<td>No.</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----------</td>
<td>-----------------</td>
<td>------</td>
</tr>
<tr>
<td>ADB secretariat team</td>
<td>Reflected</td>
<td>To be discussed.</td>
<td>56</td>
</tr>
<tr>
<td>Country codes based on ISO 3166-2 are to be changed to ADB country codes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tran Thi Thu Huyen</td>
<td>Reflected</td>
<td>None</td>
<td>51</td>
</tr>
<tr>
<td>VSD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Page 6: VSD is a Government related CSD (not exchange related CSD as stated).- Page 11, table 1: “BIDV” in the “Payment system “column should be changed into “BIDV system”.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Bond Market Infrastructure Diagrams,
Bond Transaction Flows,
Interest Payment & Redemption Flows, and
Bond Transaction Flows for Foreign Investors
# Table of Contents

**Asean+3 Bond Market Diagram** .................................................................................................................. 1

**Asean+3 Government Bond Market Diagram** ............................................................................................... 2

**Asean+3 Corporate Bond Market Diagram** ................................................................................................. 4

**Diagram of Each Economy** ......................................................................................................................... 6

**Brunei Darussalam (BN)** ........................................................................................................................... 6
   - Bond Market Infrastructure Diagram (Government Bond) ................................................................. 7
   - Profit Payment Flow of Government Sukuk Al-Ijarah ......................................................................... 9
   - Redemption Flow of Government Sukuk Al-Ijarah ........................................................................ 12

**People’s Republic of China (CN)** ........................................................................................................... 15
   - Bond Market Infrastructure Diagram ............................................................................................... 16
   - Bond Transaction Flow for Domestic Trades (Government Bond) .................................................. 19
   - Bond Transaction Flow for Domestic Trades (Corporate Bond) ...................................................... 24
   - Interest & Redemption Payment Flow (Government Bond) ................................................................. 31
   - Interest & Redemption Payment Flow (Corporate Bond) ................................................................. 40
   - Bond Transaction Flow for Foreign Investors .................................................................................. 49

**Hong Kong, China (HK)** ....................................................................................................................... 56
   - Bond Market Infrastructure Diagram ............................................................................................... 55
   - Bond Transaction Flow for Domestic Trades (Government Bond) .................................................. 58
   - Bond Transaction Flow for Domestic Trades (Corporate Bond) ...................................................... 61
   - Interest & Redemption Payment Flow (Government Bond) ................................................................. 64
   - Interest & Redemption Payment Flow (Corporate Bond) ................................................................. 69
   - Bond Transaction Flow for Foreign Investors .................................................................................. 74
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
NOTE:

- Exchange
- Central Bank
- Government
- Direct intersystem connection
- Indirect connection

*This diagram shows entities which is involved in major types of transactions.*
ASEAN+3 Government Bond Market Diagram

<table>
<thead>
<tr>
<th>Trade</th>
<th>Clearing</th>
<th>Bond Settlement</th>
<th>Cash Settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN</td>
<td>Y*</td>
<td>Central bank Related CSD **</td>
<td>Central bank money</td>
</tr>
<tr>
<td>HK</td>
<td>N</td>
<td>Central bank Owned CSD</td>
<td>Central bank money</td>
</tr>
<tr>
<td>ID</td>
<td>N</td>
<td>Central bank Owned CSD</td>
<td>Central bank money</td>
</tr>
<tr>
<td>JP</td>
<td>Y</td>
<td>Central bank Owned CSD</td>
<td>Central bank money</td>
</tr>
<tr>
<td>KR</td>
<td>Y*</td>
<td>Exchange Related CSD</td>
<td>Central bank money</td>
</tr>
<tr>
<td>MY</td>
<td>Y*</td>
<td>Central bank Owned CSD</td>
<td>Central bank money</td>
</tr>
<tr>
<td>PH</td>
<td>N</td>
<td>Bureau of Treasury, Exchange Related CSD</td>
<td>Central bank money</td>
</tr>
<tr>
<td>SG</td>
<td>N</td>
<td>Exchange Related CSD</td>
<td>Central bank money</td>
</tr>
<tr>
<td>TH</td>
<td>N</td>
<td>Exchange Related CSD</td>
<td>Central bank money</td>
</tr>
<tr>
<td>VN</td>
<td>N</td>
<td>Commercial bank money</td>
<td>Central bank money</td>
</tr>
</tbody>
</table>

Note: EX (Exchange)

*: CCP exists an exchange function. But, transaction volume/value through exchange is small.
**: There is an exchange related CSD But, transaction volume/value through exchange is small.
ASEAN+3 Corporate Bond Market Diagram

NOTE:
- Exchange Market
- Exchange related
- Direct intersystem connection
- Central Bank
- Central Bank related
- Indirect connection. Trade data (bond settlement instructions) are entered to CSD by agent custodians.
- Government
- Government related
- Commercial Bank

* This diagram shows entities which is involved in major types of transactions.
**ASEAN+3 Corporate Bond Market Diagram**

<table>
<thead>
<tr>
<th></th>
<th>CN</th>
<th>HK</th>
<th>ID</th>
<th>JP</th>
<th>KR</th>
<th>MY</th>
<th>PH</th>
<th>SG</th>
<th>TH</th>
<th>VN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade</strong></td>
<td></td>
<td>OTC</td>
<td>OTC</td>
<td>OTC</td>
<td>OTC</td>
<td>OTC</td>
<td>OTC</td>
<td>OTC</td>
<td>OTC</td>
<td>OTC</td>
</tr>
<tr>
<td><strong>Clearing</strong></td>
<td></td>
<td>Y*</td>
<td>N</td>
<td>Y*</td>
<td>N</td>
<td>Y*</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td><strong>Cash Settlement</strong></td>
<td>Commercial and Central bank money</td>
<td>Central bank money</td>
<td>Commercial bank money</td>
<td>Central bank money</td>
<td>Commercial and Central bank money</td>
<td>Central bank money</td>
<td>Central bank money</td>
<td>Central bank money</td>
<td>Commercial bank money</td>
<td>Commercial bank money</td>
</tr>
</tbody>
</table>

Note: EX (Exchange)

*: CCP exists an exchange function. But, transaction volume/value through exchange is negligibly small.
1. Bond Market Infrastructure Diagram (Government Bond)
2. Profit Payment Flow of Government Sukuk Al-Ijarah
3. Redemption Flow of Government Sukuk Al-Ijarah
1. Bond Market Infrastructure Diagram (Government Bond)

2. Profit Payment Flow of Government Sukuk Al-Ijarah

3. Redemption Flow of Government Sukuk Al-Ijarah
<table>
<thead>
<tr>
<th>Trading</th>
<th>OTC Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade matching</td>
<td></td>
</tr>
<tr>
<td>CCP</td>
<td></td>
</tr>
<tr>
<td>Settlement match.</td>
<td>Appointed Custodian</td>
</tr>
<tr>
<td>Bond settlement</td>
<td></td>
</tr>
<tr>
<td>Cash settlement</td>
<td>Appointed Cash Settlement Bank</td>
</tr>
</tbody>
</table>
1. Bond Market Infrastructure Diagram (Government Bond)

2. Profit Payment Flow of Government Sukuk Al-Ijarah

3. Redemption Flow of Government Sukuk Al-Ijarah
BN Profit Payment Flow of Government Sukuk Al-Ijarah

**Bond Issuer Side**
- **MOF (Ministry of Finance)**
  - 3. Payment approval received
  - 2. Payment approval request
  - 1. Notification of Profit Payment
  - **AMBD as Paying Agent**
    - 4. Payment Instruction

**CSD**
- **Appointed Custodian as CSD**

**Bond Holder Side**
- **Sukuk Holder**
  - 7. Profit Payment Confirmation
  - **Appointed Settlement Bank**
    - Same Entity

**Appointed Settlement Bank**
- **MOF’s Account**
  - 5. Profit Payment
  - Settlement Bank’s Account
  - 6. Profit Payment
  - Bond Holder’s Account
  - (No Tax for profit)

**Tax Office**
BN Profit Payment Flow of Government Sukuk Al-Ijarah

Process of Profit Payment

1. The appointed custodian notifies Autoriti Monetari Brunei Darussalam (AMBD) of the profit payment.
2. AMBD, as a paying agent, requests for approval and payment from Ministry of Finance (MOF).
3. MOF approves payment.
4. AMBD notifies the appointed cash settlement bank of payment details.
5. Appointed cash settlement bank transfers cash from MOF’s account to settlement bank’s account.
6. Appointed cash settlement bank credits to sukuk holders’ accounts profit paid by MOF.
7. Appointed cash settlement bank notifies sukuk holder of profit payment.
1. Bond Market Infrastructure Diagram (Government Bond)

2. Profit Payment Flow of Government Sukuk Al-Ijarah

3. Redemption Flow of Government Sukuk Al-Ijarah
BN Redemption Payment Flow of Government Sukuk Al-Ijarah

**Bond Issuer Side**

1. Notification of Profit Payment
2. Payment approval request
3. Payment approval received

**CSD**

1. Notification of Profit Payment

**Bond Holder Side**

7. Delete Registration
8. Profit Payment Confirmation

**Appointed Settlement Bank**

- **MOF’s Account**
- **Settlement Bank’s Account**
- **Bond Holder’s Account**

**Cash Flow**

- Appointed Custodian as CSD

**Information Flow**

- Same Entity

**BN Redemption Payment Flow of Government Sukuk Al-Ijarah**

- (No Tax for profit)
- Tax Office
BN Redemption Flow of Government Sukuk Al-Ijarah

Process of Profit Payment

1. The appointed custodian notifies Autoriti Monetari Brunei Darussalam (AMBD) of the redemption.
2. AMBD, as a paying agent, requests for approval and payment from Ministry of Finance (MOF).
3. MOF approves payment.
4. AMBD notifies the appointed cash settlement bank of payment details.
5. Appointed cash settlement bank transfers cash (principal and profit) from MOF’s account to settlement bank’s account.
6. Appointed cash settlement bank credits to sukuk holders’ accounts principal and profit paid by MOF.
7. Appointed Custodian as CSD deletes sukuk registration.
8. Appointed cash settlement bank notifies sukuk holder of profit payment.
People’s Republic of China (CN)

1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
Trading
Trade matching
CCP
Settlement match.
Bond settlement
Cash settlement

China OTC Market
Inter-bank Bond Market

CFETS

CCDC

PBOC (CNAPS)

Exch. Market
SSE
SZSE

CSDCC
Comm. banks

Note: Commercial Bank Counter Market is not shown here.
<table>
<thead>
<tr>
<th>Trading</th>
<th>China OTC Market</th>
<th>Inter-bank Bond Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade matching</td>
<td>CFETS</td>
<td></td>
</tr>
<tr>
<td>CCP</td>
<td>SHCH</td>
<td></td>
</tr>
<tr>
<td>Settlement match.</td>
<td>CCDC</td>
<td></td>
</tr>
<tr>
<td>Bond settlement</td>
<td></td>
<td>CSDCC</td>
</tr>
<tr>
<td>Cash settlement</td>
<td>PBOC (CNAPS)</td>
<td>Comm. banks</td>
</tr>
</tbody>
</table>

Note: Commercial Bank Counter Market is not shown here.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
CN Government Bond Transaction Flow for Domestic Trades (OTC)

Sell Side

1. Trade

2. Trade Data

3. Trade Data

4. Settlement Instruction

5. Settlement Instruction Matching Notice

6. Settlement Contract Producing

7. Contract Executing on Delivery Day

8. Sell side's Bond Locking

9. DVP Fund Settlement Request

10. Fund Transfer Processing

11. Fund Transfer Notice

CFETS

12. DVP Order

13. Bond Delivery

14. Settlement Completion Notice

Buy Side

20
CN Government Bond Transaction Flow for Domestic Trades (OTC)

OTC Market

1. Sell side and buy side trade bond via China Foreign Exchange Trade System (CFETS). CFETS provides automatic trade matching function. But, most of the bonds are traded bilaterally in China OTC market by telephone or some other ways. The trade data are entered to CFETS for price transparency.

2. CFETS sends trade data to China Central Depository & Clearing Co., Ltd. (CCDC). About 5% of trade data are entered to CCDC directly from sell side and buy side (refer to 4. Settlement instruction).

3. CCDC sends trade data to sell side and buy side for verification.

4. When sell side and buy side received trade data from CCDC, sell side and buy side verify the data. If the data are correct, sell side and buy side send affirmative message to CCDC. The messages are regarded as “settlement instructions” to CCDC. About 5% of trades are directly entered to CCDC after traded in China OTC Market. In this case, one party (either sell side or buy side) needs to send settlement instruction into CCDC system. The settlement instruction needs to contain full message items necessary for the settlement. CCDC system will automatically asks the other party to confirm. If not, CCDC doesn't process settlement. After matching the order (local matching), CCDC settles the trade in FOP or DVP as requested by customers.

5. CCDC matches settlement instructions from sell side and buy side and notifies matched result.

6. CCDC produces settlement contract.

7. On the settlement day, CCDC executes the settlement contract and notifies the status to the sell side and buy side.

8. CCDC blocks sell side’s bond to secure DVP transaction.

9. CCDC sends DVP fund settlement request to People’s Bank of China (PBOC).

10. PBOC executes fund settlement. Fund is transferred from buy side’s current account to sell side’s current account by High Value Payment System (HVPS) of CNAPS.

11. PBOC sends fund transfer notice to the sell side and buy side.

12. PBOC sends DVP fund settlement notice to CCDC.

13. CCDC executes bond delivery (release blocked bond).

14. CCDC sends settlement completion notice to the sell side and buy side.
CN Government Bond Transaction Flow for Domestic Trades (Exchange)

1. Trade Order
2. Trade Matching
3. Notice of Trade
4. Trade Data
5. Clearing
6. Clearing Result
7. Settlement Data
8. Notification of Trade To Be Settled
9. Affirmation of Settlement
10. Settlement Data
11. Cash Settlement
12. Settlement Report (cash)
12. Settlement Report (Bonds & Cash)
13. Bond Settlement
14. Settlement Report (Bonds & Cash)
CN Government Bond Transaction Flow for Domestic Trades (Exchange)

Exchange Market

1. Sell side and buy side trade via Shanghai Stock Exchange (SSE) or Shenzhen Stock Exchange (SZSE).
2. SSE/SZSE matches orders from sell side and buy side.
3. SSE/SZSE sends notice of trade to sell side and buy side.
4. SSE/SZSE sends trade data to China Central Depository & Clearing Co., Ltd. (CSDCC).
5. Clearing function in CSDCC executes clearing process.
6. Clearing function in CSDCC sends clearing result to sell side and buy side.
7. Clearing function in CSDCC sends settlement data to CSD function in CSDCC.
8. CSD function in CSDCC sends notice of trade to be settled to sell side and buy side.
9. Sell side and buy side send affirmation of settlement to CSDCC.
10. CSDCC sends settlement data to payment banks.
11. Payment banks perform cash settlement.
12. Payment banks send settlement reports to CSDCC, sell side and buy side.
13. CSD function in CSDCC executes bond settlement.
14. CSDCC sends settlement reports (bonds & cash) to sell side and buy side.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
1. Sell side and buy side trade bond via China Foreign Exchange Trade System (CFETS). CFETS provides automatic trade matching function. But, most of the bonds are traded bilaterally in China OTC market by telephone or some other ways. The trade data are entered to CFETS for price transparency.

2. CFETS sends trade data to China Central Depository & Clearing Co., Ltd. (CCDC) or Shanghai Clearing House (SHCH). CFETS also sends trade data to sell side and buy side.

3. CCDC or SHCH sends trade data to sell side and buy side for verification.

4. When sell side and buy side receive trade data from CCDC or SHCH, sell side and buy side verify the data. If the data are correct, sell side and buy side send affirmative message to CCDC. The messages are regarded as “settlement instructions” to CCDC or SHCH. Some of trades are directly entered to CCDC after traded in China OTC Market. In this case, one party (either sell side or buy side) needs to send settlement instruction into CCDC system. The settlement instruction needs to contain full message items necessary for the settlement. CCDC system automatically asks the other party to confirm. If not, CCDC doesn’t process settlement. After matching the order (local matching), CCDC settles the trade in FOP or DVP as requested by customers.

5. CCDC or SHCH matches settlement instructions from sell side and buy side and notifies matched result.

6. CCDC or SHCH produces settlement contract.

7. On the settlement day, CCDC or SHCH executes the settlement contract and notifies the status to sell side and buy side.

8. CCDC or SHCH blocks sell side’s bond to secure DVP transaction.

9. CCDC or SHCH sends DVP fund settlement request to People’s Bank of China (PBOC).

10. PBOC executes fund settlement. Fund is transferred from buy side’s current account to sell side’s current account by High Value Payment System (HVPS) of CNAPS.

11. PBOC sends fund transfer notice to sell side and buy side.

12. PBOC sends DVP fund settlement notice to CCDC or SHCH.

13. CCDC or SHCH executes bond delivery (release blocked bond).

14. CCDC or SHCH sends settlement completion notice to sell side and buy side.
CN Corporate Bond Transaction Flow for Domestic Trades (OTC)

1. Trade
2. Trade Data
3. Novation
4. Netting
5. Notice Data of Netting
6. Affirmation
7. Send Trade Data after netting
8. Transfer of sell side’s bonds to SHCH
9. Inform Completion of Transfer
10. Transfer of bonds from SHCH to buy side
11. Inform Completion of Transfer
12. Settling Completion Notice

Sell Side
CN Corporate Bond Transaction Flow for Domestic Trades (OTC)

1. Trade
2. Trade Data
3. Novation
4. Netting
5. Notice Data of Netting
6. Affirmation
7. Send Trade Data after netting
8. Transfer of sell side’s bonds to SHCH
9. Inform Completion of Transfer
10. Transfer of bonds from SHCH to buy side
11. Inform Completion of Transfer
12. Settling Completion Notice

Buy Side

CFETS
1. Trade
2. Trade Data
3. Novation
4. Netting
5. Notice Data of Netting
6. Affirmation
7. Send Trade Data after netting
8. Transfer of sell side’s bonds to SHCH
9. Inform Completion of Transfer
10. Transfer of bonds from SHCH to buy side
11. Inform Completion of Transfer
12. Settling Completion Notice

SHCH

PBOC (CNAPS)
8. Fund Transfer from Buy Side to SHCH
10. Fund Transfer from SHCH to Sell Side
12. Fund Transfer Notice
1. Sell side and buy side trade bond via China Foreign Exchange Trade System (CFETS). CFETS provides automatic trade matching function. But, most of the bonds are traded bilaterally in China OTC Market by telephone or some other ways. The trade data are entered to CFETS for price transparency.

2. CFETS sends trade data to Shanghai Clearing House (SHCH) as CCP & CSD. CFTE also sends trade data to sell side and buy side.

3. SHCH makes novation.

4. SHCH executes netting process.

5. SHCH notifies sell side and buy side of netting.

6. sell side and buy side affirms the netting.

7. SHCH sends data after netting to People’s Bank of China (PBOC).

8. SHCH transfers bonds from sell side account to SHCH while PBOC transfers money from buy side account to SHCH.

9. SHCH and PBOC inform completion of bond and money transfer each other.

10. SHCH transfers bonds from SHCH to buy side’s account while PBOC transfers money from SHCH to sell side’s account.

11. SHCH and PBOC inform completion of bond and money transfer each other.

12. SHCH notifies sell side and buy side of bond settlement completion while PBOC notifies sell side and buy side of cash settlement completion.
CN Corporate Bond Transaction Flow for Domestic Trades (Exchange)
1. Sell side and buy side trade via Shanghai Stock Exchange (SSE) or Shenzhen Stock Exchange (SZSE).
2. SSE/SZSE collates orders from sell side and buy side.
3. SSE/SZSE sends notice of trade to sell side and buy side.
4. SSE/SZSE sends trade data to China Securities Depository &Clearing Co., Ltd. (CSDCC).
5. Clearing function in CSDCC executes clearing process.
6. Clearing function in CSDCC sends clearing result to sell side and buy side.
7. Clearing function in CSDCC sends settlement data to CSD function in CSDCC.
8. CSD function in CSDCC sends notice of trade to be settled to sell side and buy side.
9. The clearing participants (i.e., the buyer/seller) shall confirm to CSDCC which of the trades shall be settled.
10. CSDCC sends cash settlement instructions to payment banks.
11. Payment banks perform cash settlement.
12. Payment banks send settlement reports to CSDCC, sell side and buy side.
13. CSD function in CSDCC executes bond settlement.
14. CSDCC sends settlement report (bonds & cash) to sell side and buy side.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
CN Interest Payment Flow of Government Bond OTC Market

**Bond Issuer Side**
- MOF
  - 2. Payment Request
  - 5. Payment Instruction

**CCDC as Paying Agent**
- 3. Payment Instruction
- 8. Payment Instruction
- 7. Confirmation

**CSD**
- Same Entity

**Bond Holder Side**
- Bond Holder
  - 11. Interest Payment Confirmation

**CCDC as Custodian**
- 4. Interest Payment Notification
  - Same Entity

**PBOC**
- MOF’s Account
- 6. Cash Transfer
  - CCDC’s Account

**Cash Settlement Bank (SB)**
- 9. Interest Payment
  - SB’s Account
  - 10. Interest Payment
  - Bond Holder’s Account

(No Tax for interest)

Tax Office
Process of Interest Payment

1. Bond holders send information including designated bank account to China Central Depository & Clearing Co., Ltd. (CCDC).
2. CCDC requests interest payment of Ministry of Finance (MOF).
3. MOF instructs CCDC to pay interests.
4. CCDC as custodian notifies bond holders of interest payment.
5. MOF instructs People’s Bank of China (PBOC) to transfer cash for interest to CCDC’s account.
6. PBOC transfers cash from MOF’s account to CCDC’s account.
7. PBOC sends payment confirmation to CCDC.
8. CCDC instructs PBOC to transfer cash for interest to cash settlement banks’ accounts via CNAPS with detailed instructions to credit bond holders’ accounts with interest.
9. PBOC transfers cash from CCDC’s account to cash settlement banks’ accounts with detailed instructions.
10. Cash settlement banks credit bond holders’ accounts with interests.
11. Cash settlement banks notify bond holders of interest payment.
CN Interest Payment Flow of Government Bond Exchange Market

1. Information
   Including Designated Bank a/c

2. Information
   Including Designated Bank a/c

3. Payment Request

4. Payment Instruction
   CSD as CSD

5. Interest Payment Notification

6. Payment Instruction

7. Cash Transfer
   (No Tax for interest)

8. Confirmation

9. Confirmation

10. Payment Instruction

11. Interest Payment

12. Interest Payment

13. Interest Payment Confirmation

Same Entity

Bond Issuer Side

MOF

CCDC as Paying Agent

Commercial Bank

Cash Settlement Bank (SB)

Bond Holder Side

CSDCC as Custodian

CSDCC as Paying Agent

CSDCC’s Account

PBOC

MOF’s Account

Bond Holder’s Account

Tax Office
**Process of Interest Payment**

1. Bond holders send information including designated bank account to China Securities Depository and Clearing Corporation (CSDCC).
2. CSDCC sends information including designated bank account to China Central Depository & Clearing Co. Ltd. (CCDC) as paying agent.
3. CCDC requests interest payment of Ministry of Finance (MOF).
4. MOF instructs CCDC to pay interests.
5. CSDCC as custodian notifies bond holders of interest payment.
6. MOF instructs People’s Bank of China (PBOC) to transfer cash from MOF’s account to CCDC’s account.
7. PBOC transfers cash from MOF’s account to CCDC’s account.
8. PBOC sends payment confirmation to CCDC.
9. CCDC sends payment confirmation to CSDCC.
10. CCDC instructs a commercial bank to transfer cash from CCDC’s account to cash settlement banks’ account via CNAPS with detailed instructions to credit holders’ accounts with interest.
11. Commercial bank transfers cash from CCDC’s account to CSDCC’s account with detailed instructions.
12. Cash Settlement banks credit bond holders’ accounts with interests.
13. Cash Settlement banks notify bond holders of interest payment.
CN Interest Payment Flow of Government Bond OTC Market

1. Information Including Designated Bank a/c
2. Payment Request
3. Payment Instruction
4. Interest Payment Notification
5. Payment Instruction
6. Cash Transfer
7. Confirmation
8. Payment Instruction
9. Redemption
10. Interest Payment
11. Interest Payment
12. Interest Payment Confirmation

Bond Issuer Side
- MOF
- CCDC as Paying Agent
- PBOC
- MOF’s Account
- CCDC’s Account
- SB’s Account
- Bond Holder’s Account
- Tax Office
- (No Tax for interest)

CSD
- CCDC as CSD

Cash Settlement Bank(SB)
- Cash Settlement Bank(SB)

Bond Holder Side
- Bond Holder
- CCDC as Custodian
- Cash Flow
- Information Flow
1. Bond holders send information including designated bank account to China Central Depository & Clearing Co., Ltd. (CCDC) as custodian.
2. CCDC requests interest payment of Ministry of Finance (MOF).
3. MOF instructs CCDC to pay interests.
4. CCDC as custodian notifies bond holders of redemption payment.
5. MOF instructs People’s Bank of China (PBOC) to transfer cash for redemption to CCDC’s account.
6. PBOC transfers cash from MOF’s account to CCDC’s account.
7. PBOC sends payment confirmation to CCDC.
8. CCDC instructs PBOC to transfer cash from CCDC’s account to cash settlement banks’ account via CNAPS with detailed instructions to credit holders’ accounts with interest.
9. CCDC makes bond redemption.
10. PBOC transfers cash from CCDC’s account to cash settlement banks’ account with detailed instructions.
11. Cash settlement banks credit bond holders’ accounts with redemption.
CN Interest Payment Flow of Government Bond Exchange Market

1. Information Including Designated Bank a/c

2. Information Including Designated Bank a/c

3. Payment Request

4. Payment Instruction

5. Interest Payment Notification

6. Payment Instruction

7. Cash Transfer

8. Confirmation

9. Confirmation

10. Redemption

11. Payment Instruction

12. Interest Payment

13. Interest Payment

14. Interest Payment Confirmation

Bond Issuer Side

MOF

CCDC as Paying Agent

CSD as CSD

CSDCC as Custodian

Bond Holder Side

Bond Holder

PBOC

MOF’s Account

Commercial Bank

CCDC’s Account

Cash Settlement Bank(SB)

CSDCC’s Account

Bond Holder’s Account

(No Tax for interest)

Tax Office
## Process of Redemption Payment

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bond holders send information including designated bank account to China Securities Depository and Clearing Corporation (CSDCC).</td>
</tr>
<tr>
<td>2.</td>
<td>CSDCC sends information including designated bank account to China Central Depository &amp; Clearing Co., Ltd. (CCDC) as paying agent.</td>
</tr>
<tr>
<td>3.</td>
<td>CCDC requests interest payment of Ministry of Finance (MOF).</td>
</tr>
<tr>
<td>4.</td>
<td>MOF instructs CCDC to pay redemption.</td>
</tr>
<tr>
<td>5.</td>
<td>CSDCC as custodian notifies bond holders of redemption payment.</td>
</tr>
<tr>
<td>6.</td>
<td>MOF instructs People’s Bank of China (PBOC) to transfer cash from MOF’s account to CCDC’s account.</td>
</tr>
<tr>
<td>7.</td>
<td>PBOC transfers cash from MOF’s account to CCDC’s account.</td>
</tr>
<tr>
<td>8.</td>
<td>PBOC sends payment confirmation to CCDC.</td>
</tr>
<tr>
<td>9.</td>
<td>CCDC sends payment confirmation to CSDCC.</td>
</tr>
<tr>
<td>10.</td>
<td>CSDCC makes bond redemption.</td>
</tr>
<tr>
<td>11.</td>
<td>CCDC instructs a commercial bank to transfer cash from CCDC’s account to cash settlement banks’ accounts via CNAPS with detailed instructions to credit holders’ accounts with redemption.</td>
</tr>
<tr>
<td>12.</td>
<td>Commercial bank transfers cash from CCDC’s account to cash CSDCC’s accounts with detailed instructions.</td>
</tr>
<tr>
<td>13.</td>
<td>Commercial banks credit bond holders’ accounts with redemption.</td>
</tr>
</tbody>
</table>
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
CN Interest Payment Flow of Corporate Bond OTC Market

Bond Issuer Side
- Bond Issuer
- CCDC/SHCH as Paying Agent
- 2. Payment Request
- 3. Payment Instruction
- 5. Payment Instruction
- 7. Confirmation

Issuer’s Designated Bank
- Issuer’s Account
- .6. Cash Transfer

CSD
- CCDC/SHCH as CSD
- Same Entity
- 8. Payment Instruction

PBOC
- CCDC/SHCH’s Account
- 9. Interest Payment

Cash Settlement Bank (SB)
- SB’s Account
- 10. Interest Payment

Bond Holder Side
- Bond Holder
- CCDC/SHCH as Custodian
- 11. Interest Payment Confirmation

Same Entity
- Same Entity

Tax Office
- 12. Tax Payment
1. Bond holders send information including designated bank account to China Central Depository & Clearing Co., Ltd (CCDC) or Shanghai Clearing House (SHCH).
2. CCDC or SHCH as paying agent requests interest payment of bond issuer.
3. Bond issuer instructs CCDC or SHCH to pay interests.
4. CCDC or SHCH as custodian notifies bond holders of interest payment.
5. Bond issuer instructs its designated bank to transfer cash from issuer’s account to CCDC’s or SHCH’s account.
6. The designated bank transfers cash from issuer’s account to CCDC’s or SHCH’s account.
7. The designated bank sends payment confirmation to CCDC or SHCH.
8. CCDC or SHCH instructs People’s Bank of China (PBOC) to transfer cash from CCDC’s or SHCH’s account to cash settlement banks’ accounts via CNAPS.
9. PBOC transfers cash from CCDC’s / SHCH’s account to cash settlement banks’ accounts via CNAPS with instructions to credit holders’ accounts.
10. Cash settlement banks credit bond holders’ accounts with interest.
11. Cash settlement banks notify bond holders of interest payment.
12. Bond holders pay tax to tax office.
CN Interest Payment Flow of Corporate Bond Exchange Market

**Bond Issuer Side**
- Bond Issuer
- CSDCC as Paying Agent
- Issuer's Designated Bank
- Issuer's Account
- CSDCC's Account

**CSD**
- CSD
- CSDCC as Custodian
- CSDCC as Paying Agent
- CSDCC

**Bond Holder Side**
- CSDCC as Custodian
- CSDCC as Paying Agent
- Cash Settlement Bank (SB)
- Bond Holder's Account

**Cash Flow**
1. Information Including Designated Bank a/c
2. Payment Request
3. Payment Instruction
4. Interest Payment Notification
5. Payment Instruction
6. Cash Transfer
7. Confirmation
8. Payment Instruction
9. Interest Payment
10. Interest Payment Confirmation
11. Tax Payment

**Information Flow**
- Issuer's Designated Bank
- Cash Settlement Bank (SB)
- Tax Office
CN Interest Payment Flow of Corporate Bond Exchange Market

Process of Interest Payment

1. Bond holders send information including designated bank account to China Securities Depository and Clearing Corporation (CSDCC).
2. CSDCC as paying agent requests interest payment of bond issuer.
3. Bond issuer instructs CSDCC to pay interests.
4. CSDCC as custodian notifies bond holders of interest payment.
5. Bond issuer instructs its designated bank to transfer cash from issuer’s account to CSDCC’s account.
6. Designated bank transfers cash from issuer’s account to CSDCC’s account.
7. Designated bank sends payment confirmation to CSDCC.
8. CSDCC instructs cash settlement bank to transfer cash to bond holder’s account.
9. Cash settlement banks credit bond holders’ accounts with interest deducting tax if applicable.
10. Cash settlement banks notify bond holders of interest payment.
11. CSDCC pays tax to tax office.
CN Interest Payment Flow of Corporate Bond OTC Market

Bond Issuer Side
- Bond Issuer
- CCDC/SHCH as Paying Agent
  - 2. Payment Request
  - 3. Payment Instruction
  - 7. Confirmation

CSD
- CCDC/SHCH as CSD
  - Same Entity
  - 5. Payment Instruction
  - 10. Redemption

Bond Holder Side
- Bond Holder
- CCDC/SHCH as Custodian
  - 4. Interest Payment Notification
  - 12. Interest Payment Confirmation

Issuer's Designated Bank
- Issuer’s Account
  - 6. Cash Transfer
  - Issuer's Designated Bank's Account

PBOC
- CCDC/SHCH's Account
  - 8. Payment Instruction
  - 9. Interest Payment

Cash Settlement Bank(SB)
- SB’s Account
  - 11. Interest Payment
  - Bond Holder’s Account

Tax Office
- 13. Tax Payment
1. Bond holders send information including designated bank account to China Central Depository & Clearing Co., Ltd (CCDC) or Shanghai Clearing House (SHCH).
2. CCDC or SHCH requests redemption payment of bond issuer.
3. Bond issuer instructs CCDC or SHCH to pay redemption.
4. CCDC or SHCH as custodian notifies bond holders of redemption payment.
5. Bond issuer instructs its designated bank to transfer cash from issuer’s account to CCDC’s or SHCH’s account.
6. Designated bank transfers cash from issuer’s account to CCDC’s or SHCH’s account.
7. Designated bank sends payment confirmation to CCDC or SHCH.
8. CCDC or SHCH instructs People’s bank of China (PBOC) to transfer cash to cash settlement banks’ account via CNAPS.
9. PBOC transfers cash from CCDC’s or SHCH’s account to cash settlement banks’ account via CNAPS with instructions to credit holders’ accounts.
10. CCDC or SHCH as CSD makes bond redemption.
11. Cash settlement banks credit bond holders’ accounts with redemption.
13. Bond holders pay tax to tax office.
CN Interest Payment Flow of Corporate Bond Exchange Market

**Bond Issuer Side**
- Bond Issuer
- CSDCC as Paying Agent
- Issuer’s Designated Bank
  - Issuer’s Account
  - .6. Cash Transfer
- CSDCC’s Account
- Cash Settlement Bank(SB)
  - CSDCC’s Account
  - 9. Interest Payment
- Tax Office
- .12. Tax Payment

**CSD**
- CSDCC as CSD
- 10. Redemption
- 1. Information Including Designated Bank a/c
- 4. Interest Payment Notification
- Same Entity
- Information Flow

**Bond Holder Side**
- Bond Holder
- CSDCC as Custodian
- Same Entity
- 11. Interest Payment Confirmation
- Cash Flow
1. Bond holders send information including designated bank account to China Securities Depository and Clearing Corporation (CSDCC).

2. CSDCC as paying agent requests interest payment of bond issuer.

3. Bond issuer instructs CSDCC to pay interests.

4. CSDCC notifies bond holders of interest payment.

5. Bond issuer instructs its designated bank to transfer cash from issuer’s account to CSDCC’s account.

6. Designated bank transfers cash from issuer’s account to CSDCC’s account.

7. Designated bank sends payment confirmation to CSDCC.

8. CSDCC instructs cash settlement banks to transfer cash to cash settlement banks’ account.

9. Cash settlement banks transfer cash from CSDCC’s account to cash settlement banks’ account with instructions to credit holders’ accounts.

10. CSDCC as CSD makes bond redemption.

11. Cash settlement banks notify bond holders of interest payment.

12. CSDCC pays tax to tax office.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
CN Bond Transaction Flow for Foreign Investors
OTC Market / RMB Banks

BOC HK, RMB Settlement Banks (HK, Macau)

As own banker

Cross-Border

1 Trade Order

2 Trade Execution

Authorised Broker

or Bank

3 Trade Confirmation

Optional

4 Trade Confirmation

5 Trade Confirmation

6 Advice of Settlement Details

7 Settlement Instruction

8 Remittance of Funds

9 Funding of PBOC Account

10 Confirmation of Settlement Details

11 Confirmation of Debit/Credit

12 Settlement Confirmation

13 Settlement Confirmation

14 Securities Statement

15 Cash Statement

Settlement Agent (Custodian)

As Cash Correspondent

CFETS

Trading

Matched & Settlement

CCDC

PBOC CNAPS

Cash Settlement
CN Bond Transaction Flow for Foreign Investors
OTC Market / RMB Banks

1. Eligible Institution/RMB Bank places order with Authorised Broker or Bank
2. Authorized Broker or Bank, executes trade on CFTES, or via phone, then captures trade details in CFETS
3. Authorized Broker or Bank receives trade confirmation from/via CFETS
4. Authorized Broker or Bank sends trade confirmation to Eligible Institution/RMB Bank
5. Authorized Broker or Bank sends trade confirmation to Settlement Agent
6. CCDC sends advice of settlement details to Settlement Agent
7. Eligible Institution/RMB Bank instructs Settlement Agent on settlement details
8. Eligible Institution/RMB Bank remits RMB amount to Settlement Agent
9. Settlement Agent funds own PBOC account, in preparation for settlement
10. Settlement Agent confirms/affirms settlement details via CCDC (front-end) system
11. Upon confirmations from both Settlement Agents, cash settlement is triggered by CCDC and PBOC will send a confirmation of debit or credit to the Settlement Agent
12. Upon confirmations from both Settlement Agents, securities settlement is effected and CCDC will send a securities settlement confirmation to the Settlement Agent
13. Settlement Agent sends settlement confirmation to Eligible Institution/RMB Bank
14. At end of day, Settlement Agent sends securities statement to Eligible Institution/RMB Bank
15. At end of day, Settlement Agent sends cash movement confirmation/cash statement to Eligible Institution/RMB Bank
CN Bond Transaction Flow for Foreign Investors
Exchange Market / QFII

Foreign Institutional Investor (direct or Investment Manager)

1. Cash Projection Report
2. Trade Order
3. Trade Execution
4. Trade Confirmation
5. Trade Confirmation
6. Report on Trade Obligations
7. Correction of Transaction Details
8. Bond Transfer Confirmation
9. Status Update or Confirmation
10. Settlement Instruction
11. Settlement Instruction
12. Funding via Nostro Account
13. Settlement Confirmation
14. Settlement Confirm
15. Confirmation of Debit/Credit
16. Securities Statement
17. Cash Statement
18. Cash Statement

Global Custodian
In capacity as Global Custodian

QFII Custodian
Cash Correspondent

SSE or SZSE
CSDCC (CCP)
CSDCC
Designated Payment Bank

Trading
Clearing
Matching & Settlement
Cash Settlement
1. QFII Custodian send cash projection report to Designated QFII Broker
2. QFII places order with Designated QFII Broker
3. Designated QFII Broker checks balance, executes trade on Shanghai Stock Exchange (SSE), or Shenzhen Stock Exchange (SZSE)
4. Designated QFII Broker receives trade confirmation
5. Designated QFII Broker sends trade confirmation to QFII, and to QFII Custodian
6. QFII Custodian downloads Report on Trade Obligations from CSDCC (Clearing function)
7. Only in the event of a discrepancy, QFII Custodian needs to contact CSDCC
8. CSDCC (Settlement function) sends confirmation of transfer of bonds to QFII Custodian (on T evening)
9. QFII Custodian sends status update or partial settlement confirmation to Global Custodian
10. QFII instructs Global Custodian on settlement details
11. Global Custodian instructs QFII Custodian on settlement details
12. QFII Custodian funds settlement clearing reserve account (CSDCC account at Payment Bank)
13. After cash settlement deadline (in effect completion of trade settlement), QFII Custodian sends settlement confirmation to Global Custodian
14. Global Custodian sends settlement confirmation to QFII
15. Payment Bank sends debit/credit information in form of cash statement to QFII Custodian
16. QFII Custodian sends securities statement to Global Custodian (end of day)
17. QFII Custodian sends cash movement confirmation/cash statement to Global Custodian (end of day)
18. Global Custodian sends cash movement confirmation/cash statement to QFII (end of day)
Hong Kong, China (HK)

1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
1. **Bond Market Infrastructure Diagram**

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
HKMA – Hong Kong Monetary Authority
CMU – Central MoneyMarkets Unit
CHATS – Clearing House Automated Transfer System (HKD, USD, EUR and RMB)

Note: There is no CCP for bonds in Hong Kong
HK Corporate Bond Market Infrastructure Diagram

<table>
<thead>
<tr>
<th>Trading</th>
<th>OTC market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade matching</td>
<td>HKMA (CMU)</td>
</tr>
<tr>
<td>CCP</td>
<td></td>
</tr>
<tr>
<td>Settlement match.</td>
<td>HKMA (CMU)</td>
</tr>
<tr>
<td>Bond settlement</td>
<td></td>
</tr>
<tr>
<td>Cash settlement</td>
<td>HKMA (CHATS)</td>
</tr>
</tbody>
</table>

HKMA – Hong Kong Monetary Authority
CMU – Central MoneyMarkets Unit
CHATS – Clearing House Automated Transfer System (HKD, USD, EUR and RMB)

Note: There is no CCP for bonds in Hong Kong
O TC Market

1. Sell side and buy side trade over the counter.
2. Sell side and buy side send instructions to Central Moneymarkets Unit (CMU) via eCMT, SWIFT, Fax, AFT or by hand. When they use system, both sell side and buy side enters trade data. Participants need to send the message instructions before the cutoff time (4:00 p.m.) on settlement day.
3. CMU performs validation and matching.
4. CMU sends matching result to the sell side and buy side.
5. CMU holds the bond.
6. CMU sends settlement data to CHATS.
7. CHATS executes cash settlement. CHATS will auto-debit the buy sides’ RTGS account.
8. CHATS sends cash settlement report to CMU.
9. CMU executes bond settlement.
10. CHATS sends cash settlement report to the buy side and sell side respectively, while CMU sends securities settlement confirmation to the sell side and buy side.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
HK Corporate Bond Transaction Flow for Domestic Trades
HK Corporate Bond Transaction Flow for Domestic Trades

OTC Market

1. Sell side and buy side trade over the counter.
2. Sell side and buy side send instructions to Central Moneymarkets Unit (CMU) via eCMT, SWIFT, Fax, AFT or by hand. When they use system, both sell side and buy side enters trade data. Participants need to send the message instructions before the cutoff time (4:00 p.m.) on settlement day.
3. CMU performs validation and matching.
4. CMU sends matching result to the sell side and buy side.
5. CMU holds the bond.
6. CMU sends settlement data to CHATS.
7. CHATS executes cash settlement. CHATS will auto-debit the buy sides’ RTGS account.
8. CHATS sends cash settlement report to CMU.
9. CMU executes bond settlement.
10. CHATS sends cash settlement report to buy side and sell side respectively, while CMU sends securities settlement confirmation to the sell side and buy side.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
HK Interest Payment Flow of Government Bond
OTC Market

Bond Issuer Side

Treasury Department

HKMA
as Paying Agent

HKMA(CHATs)

TD’s Account

No Tax Payment

CSD

CMU
as CSD

BOND Holder Side

Bond Holder

Account Management Institutions
(CMU member)

CMU member

CMU member’s Account

BOND Holder’s Account

Tax Office

1. Payment Request

2. Payment Instruction

Same Entity
(No Confirmation Necessary)

3. Notification of Payment Details

6. Settlement Report

7. Interest Payment Confirmation

8. Interest Payment Confirmation

Cash Flow

Information Flow

1. Payment Request

2. Payment Instruction

Same Entity
(No Confirmation Necessary)

3. Notification of Payment Details

6. Settlement Report

7. Interest Payment Confirmation

8. Interest Payment Confirmation
1. 3 days before the interest payment date, Hong Kong Monetary Authority (HKMA), as the payment agent, sends interest payment notification to Treasury Department.
2. Treasury Department instructs HKMA to pay interest.
3. HKMA sends Coupon/Dividend and Redemption Notification Report to CMU Members one business day before the payment date.
4. HKMA transfer cash for interest from Treasury Department’s account to its own account.
5. On interest payment date, HKMA pays interest proceeds to account management institutions (CMU Members) via CHATS.
6. Upon completion of payment, CMU sends settlement reports to account management institutions (CMU Members).
7. Account management institutions (CMU Members) subsequently pay the interest proceeds to the bond holders.
8. Account management institutions (CMU Members) notifies bond holders of interest payment.
HK Redemption Payment Flow of Government Bond OTC Market

1. Payment Request
   - Treasury Department

2. Payment Instruction
   - HKMA as Paying Agent

3. Notification of Payment Details
   - CMU as CSD
     - CMU member
     - Tax Office

4. Redemption Payment
   - Treasury’s Account
   - HKMA(CHATS)

5. Redemption Payment
   - HKMA’s Account

6. Settlement Report
   - CMU member’s Account

7. Redemption
   - Same Entity (No Confirmation Necessary)

8. Redemption Payment
   - CMU member’s Account

9. Redemption Payment Confirmation
   - Account Management Institutions (CMU member)

Cash Flow

Information Flow
HK Redemption Payment Flow of Government Bond

Process of Redemption Payment

1. 3 days before the redemption payment date, Hong Kong Monetary Authority (HKMA), as payment agent, sends redemption payment notification to Treasury Department.
2. Treasury Department instructs HKMA to pay last interest and principal.
3. HKMA sends Coupon/Dividend and Redemption Notification Report to CMU Members one business day before the payment date.
4. HKMA transfers cash for interest from Treasury Department’s account to its own account.
5. On redemption payment date, HKMA pays last interest and principal proceeds to account management institutions (CMU Members) via CHATS.
6. Upon completion of payment, CMU sends settlement reports to account management institutions (CMU Members).
7. HKMA as CSD makes bond redemption.
8. Account management institutions (CMU Members) subsequently pay last interest and principal proceeds to bond holders.
9. Account management institutions (CMU Members) notifies bond holders of redemption payment.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
HK Interest Payment Flow of Corporate Bond

1. Payment Notification
2. Account Positions Report
3. Notification of Eligible Positions
4. Payment Instruction
5. Cash Transfer
6. Payment Instruction
7. Interest Payment
8. Interest Payment
9. Interest Payment Confirmation

Bond Issuer Side
- Bond Issuer
- Paying Agent
- Issuer’s Account
- PA’s Account
- CMU member’s Account
- Bond Holder’s Account
- Tax Office

CSD
- HKMA (CMU) as CSD

Bond Holder Side
- Bond Holder
- Account Management Institution (CMU Member)
- Paying Agent
- CMU Member
- HKMA (CHATS)
- Tax Office
HK Interest Payment Flow of Corporate Bond

Process of Interest Payment

1. Paying agent notifies bond issuer of interest payment.
2. 1 day before the interest payment date, CMU sends Account Positions Report to paying agent.
3. 1 day before the interest payment date, CMU sends notification of eligible positions to account management institutions (CMU Members).
4. On interest payment date, bond issuer instructs its paying agent to make interest payment.
5. Paying agent transfers cash from issuer’s account to its own account.
6. Paying agent instruct Hong Kong Monetary Authority (HKMA) to pay interest to CMU members via CHATS.
7. On interest payment date, the HKMA transfers the interest proceeds to the account management institutions (CMU Members) via CHATS.
8. CMU members subsequently pay the interest proceeds to the bond holders.
9. CMU members notifies bond holders of interest payment.
HK Redemption Payment Flow of Corporate Bond

1. Payment Notification
2. Account Positions Report
4. Payment Instruction
6. Payment Instruction
8. Redemption

Bond Issuer Side

Bond Issuer

Paying Agent

Issuer’s Account

PA’s Account

Paying Agent

CMU Member

9. Redemption Payment

CMU Member’s Account

Bond Holder’s Account

HKMA (CMU) as CSD

3. Notification of Eligible Positions

HKMA (CMU) as CSD

8. Redemption

Cash Flow

Information Flow

Bond Holder Side

Bond Holder

Account Management Institution (CMU Member)

Tax Office

(No Tax Payment)
Process of Redemption Payment

1. Payment agent notifies bond issuer of redemption payment.
2. 1 day before the redemption payment date, CMU sends Account Positions Report to paying agent.
3. 1 day before the redemption payment date, CMU sends notification of eligible positions to account management institutions (CMU Members).
4. On redemption payment date, bond issuer instructs its paying agent to make redemption payment.
5. Paying agent transfers cash from issuer’s account to its own account.
6. Paying agent instructs Hong Kong Monetary Authority (HKMA) to pay last interest and principal to CMU members via CHATS.
7. On redemption payment date, HKMA transfers last interest and principal proceeds to account management institutions (CMU Members) via CHATS.
8. HKMA as CSD carries out redemption.
9. CMU members subsequently pay last interest and principal proceeds to bond holders.
10. CMU members notifies bond holders of redemption payment.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
HK Bond Transaction Flow for Foreign Investors OTC Market / DVP

Foreign Institutional Investor (direct or Investment Manager)

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

International Broker

Domestic Broker

or Bank

Global Custodian

As Cash Correspondent

Domestic Custodian

As Cash Correspondent

Counter-party

HKMA
CMU

Cross-Border

Trading

Clearing

Matching & Settlement

Funding of Trades

Settlement Confirm

Capture/UL of Transaction Details

Funding Advice

Securities Statement

Confirmation of Debit/Credit

Funding of HKMA Account

Matching Status Update

Matching Confirmation

Settlement Confirmation

Settlement Instruction

Settlement Instruction

Settlement Confirmation

Settlement Confirmation

Cash Statement

Cash Statement

Cash Statement
1. Foreign Institutional Investor places order with International Broker
2. International Broker places order with Domestic Broker/Bank
3. Domestic Broker/Bank trades OTC with Counterparty (via phone or, e.g., Bloomberg)
4. Domestic Broker/Bank sends trade confirmation to International Broker
5. Foreign Institutional Investor receives trade confirmation
6. Foreign Institutional Investor instructs Global Custodian, on securities settlement and cash funding details
7. Global Custodian instructs Domestic Custodian on securities settlement
8. Domestic Custodian captures (eCMT or upload) settlement instructions into CMU
9. Domestic Custodian receives transaction matching confirmation from CMU, or status updates
10. Domestic Custodian sends matching status update to Global Custodian, either as report or, typically, per individual transaction
11. Global Custodian advises funding details to Domestic Custodian
12. Domestic Custodian effects funding of HKMA account via CHATS
13. Upon transfer of cash, HKMA sends cash settlement confirmation to Domestic Custodian
14. Upon transfer of bonds, CMU sends bond settlement confirmation to Domestic Custodian
15. Domestic Custodian sends settlement confirmation to Global Custodian
16. Foreign Institutional Investor receives settlement confirmation from Global Custodian
17. Global Custodian funds trades into Domestic Custodian HKD account, or into FCY nostro
18. Domestic Custodian sends securities statement to Global Custodian (end of day)
19. Domestic Custodian sends debit/credit confirmation as cash statement to Global Custodian (end of day)
20. Global Custodian sends debit/credit confirmation in cash statement to Foreign Institutional Investor (end of day)
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
ID Corporate Bond Market Infrastructure Diagram

Trading
- OTC Market (telephone)
  - IDX (FITS)

Trade matching
- KSEI
  - IDX (CTP)
  - KPEI (e-BOCS)

CCP

Settlement match.
- KSEI (C-BEST)

Bond settlement

Cash settlement
- Payment Banks
  - BI (BI-RTGS)

IDX – Indonesian Stock Exchange
FITS - Fixed-Income Trading System
CTP – Centralized Trading Platform
KSEI – Indonesian Central Securities
KPEI – Indonesia Clearing and guarantee Corporation
BI – Bank Indonesia
e-BOCS – Electronic Bond Clearing System
C-BEST – Central Depository and Book Entry Settlement
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
ID Government Bond Transaction Flow for Domestic Trades

1. Trade
   (Telephone/ Bloomberg/ Reuters)

2. Pre-Settlement Matching
   (Telephone/ SWIFT)

3. OTC Trade Reporting
   Requirement

4. Code Numbering

5. Report Reference Code

6. DVP Instruction

7. Matching DVP

8. Matching Result

9. Earmark Bond

10. Payment
    Message

11. Cash Settlement

12. Cash Settlement
    Statement

13. Irrevocable Debit/ Credit

14. Bond Settlement

15. Settlement Statement

Sell Side

Sell Side/ Sell Side’s Sub Registry

Buy Side

Buy Side/ Buy Side’s Sub Registry
OTC Market (Direct Connection to BI-SSSS)

1. Sell side and buy side trade government bonds over-the-counter. Most of trades are done by telephones.
2. Both sell side and buy side send pre-settlement matching instructions over the SWIFT or pre-match the traded data for settlement over the telephone. Before the pre-settlement matching two components of bond taxes which are capital gain tax and interest (withholding) tax need to be calculated. Pre-settlement matching is performed via telephone or swift.
3. Sell side or buy side have to report trade data to Centralized Trading Platform (CTP) of Indonesia Stock Exchange (IDX) within 30 minutes of trade.
4. IDX puts the code on each trade.
5. Sell side and buy side receive report reference code from IDX.
6. Sell side and buy side key in the DVP and RVP instructions to BI-SSSS, respectively.
7. BI-SSSS performs the matching.
8. BI-SSSS reports the matching results to the sell side and buy side.
9. Bond is earmarked to secure the DVP.
10. Payment message for DVP is sent to Bank Indonesia Real Time Gross Settlement (BI-RTGS)
11. When the funds are available, the amount is debited from the buy side’s cash account and credited to the sell side’s cash account.
12. BI-RTGS sends the cash settlement statements to the sell side and buy side.
13. BI-RTGS notifies the irrevocable debit/credit status to BI-SSSS.
14. BI-SSSS completes bond settlement.
15. BI-SSSS reports the settlement status to both sell side and buy side.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
OTC Market

1. Sell side and buy side trade corporate bonds over-the-counter. Most of trades are done by telephones.
2. Sell side calculate preliminary value of capital gain and accrued interest during holding period of sell side bond holder. Then, the sell side informs such information with other trade data to buy side. Buy side calculate with holding tax on the accrued interest and capital gain. Then, buy side inform net payment value to sell side. Also, both sell side and buy side affirm trade data each other over the telephone (trade confirmation in fax or e-mail format). Major custodians use Auto-pre-matching module of C-BEST provided by KSEI for pre-settlement matching instead of using telephone.
3. Sell side or buy side have to report trade data to Centralized Trading Platform (CTP) of Indonesia Stock Exchange (IDX) within 30 minutes of trade during the reporting hours determined by the IDX..
4. IDX puts code on each trade in order to settlement.
5. Sell side and buy side receive report reference code from IDX, they also receive evidence of securities transaction and List of Report on Securities Transactions from IDX, which may be downloaded from the CTP.
6. In the case of settlement transaction done in DVP, buy side sends instruction to its bank regarding cash transfer from buy side’s cash account to KSEI cash account Accordingly, amount of remittance is no need to be equal to transaction value, however the total amount available in the buy side’s KSEI cash account must cover the transaction value, however the total amount available in the buy side’s KSEI cash account must cover the transaction value
7. The relevant payment bank receives cash transfer from buy side’s cash account into KSEI cash account.
8. Payment banks send cash payment message to KSEI.
9. KSEI credits buy side account in C-BEST.
10. Sell side and buy side send bond settlement instructions to KSEI(C-BEST), respectively. The instruction must specify whether it is a DVP (Delivery Versus Payment) or a DFOP (Delivery Free of Payment) instruction.
OTC Market

11. KSEI performs settlement matching.
12. KSEI reports matching result to sell side and buy side, if both the bonds and the cash are available in the respective accounts.
13. For DVP instruction, KSEI checks balance of buy side cash account and sell side bond account.
14. KSEI performs bond settlement at the time designated by the buy side and the sell side subject to KSEI’s business hours.
15. KSEI sends settlement statement to sell side and buy side.
16. Sell side sends instruction to KSEI regarding cash transfer from sell side’s KSEI cash account to sell side cash account. Fund transfer from KSEI cash account can only be done by transferring the fund into an operational account opened by sell side at a payment bank. Amount of remittance is no need to be equal to transaction value.
17. KSEI sends cash transfer instruction to the relevant payment bank. Furthermore, if cash balance is not sufficient in the relevant payment bank, the settlement of cash transfer will be delayed up to the sufficient fund result from realignment process being ready. (In a day there are 6 times realignment process)
18. The relevant payment banks transfer cash from sell side’s KSEI cash account to sell side’s operational account in the relevant payment bank.
19. Payment banks send cash account information to sell side.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. **Interest & Redemption Payment Flow (Government Bond)**

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
ID Interest Payment Flow of Government Bond

**Bond Issuer Side**
- MOF
  - 2. Payment Instruction
  - BI
    - As Paying Agent

**CSD**
- BI-SSSS as CSD
  - Same Entity (No Confirmation Necessary)

**Bond Holder Side**
- Bond Holder
  - 6. Interest Payment Notice
  - BI-SSSS Participants including Sub-registries
    - Same Entity

**Flow of Government Bond**
1. Payment Information
2. Payment Instruction
3. Interest Payment MOF’s Account
4. Interest Payment BI’s Account
5. Interest Payment Participant’s Account
6. Interest Payment Notice
7. Tax Payment

Does the payment go through BI’s account? (Same Entity, No Confirmation Necessary)
ID Interest Payment Flow of Government Bond

Process of Interest Payment

1. Bank Indonesia (BI) notifies Ministry of Finance (MOF) of payment information.
2. MOF instructs Bank Indonesia (BI) to pay interest.
3. BI transfers cash for interest payment from MOF’s account to BI’s own account.
4. BI makes interest payment to BI-SSSS participant including sub-registries.
5. BI-SSSS participants credit bond holders’ account with interest.
6. BI-SSSS participants notify bond holder of interest payment.
7. BI-SSSS participants pay income tax to tax office.

※ BI-SSSS : Bank Indonesia Scripless Securities Settlement System
ID Redemption Payment Flow of Government Bond

1. Payment Information

2. Payment Instruction

MOF

BI (BI-SOSA)

3. Redemption Payment

MOF’s Account

BI (BI-RTGS)

4. Redemption Payment

BI’s Account

Participant’s Account

5. Redemption

BI-SSSS as CSD

Same Entity (No Confirmation Necessary)

6. Redemption Payment

7. Redemption Payment Notice

8. Tax Payment

Tax Office

Bond Holder

Same Entity

BI-SSSS Participants including Sub-registries

Same Entity

Bond Issuer Side

CSD

Bond Holder Side
ID Redemption Payment Flow of Government Bond

Process of Redemption Payment

1. BI notifies Ministry of Finance (MOF) of payment information.
2. MOF instructs Bank Indonesia (BI) to pay redemption.
3. BI transfers cash for interest payment from MOF’s account to BI’s own account.
4. BI makes redemption payment to BI-SSSSS participant including sub-registries.
5. BI makes bond redemption.
6. BI-SSSSS participants credit bond holders’ account with redemption.
7. BI-SSSSS participants notify bond holder of redemption payment.
8. BI-SSSSS participants pay income tax and capital gain tax to tax office.

※ BI-SSSSS : Bank Indonesia Scripless Securities Settlement System
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
ID Interest Payment Flow of Corporate Bond

**Bond Issuer Side**

1. Announcement
2. On RD+1, Member Entitlement
3. On RD+1, List of Bondholders
4. Tax Docs*
5. DGT Forms*
6. On PD-1, Payment Instruction
7. Cash Transfer
8. Payment Confirmation
9. On PD, Payment Instruction
10. Interest Payment
11. Interest Payment
12. Interest Payment Notice
13. Interest Payment Confirmation and DGT
14. Tax Payment
15. Tax Docs
16. Proof of Tax Payment

**CSD**

**Bond Holder Side**

1. Announcement
2. On RD+1, Member Entitlement
3. On RD+1, List of Bondholders
4. Tax Docs*
5. DGT Forms*
6. On PD-1, Payment Instruction
7. Cash Transfer
8. Payment Confirmation
9. On PD, Payment Instruction
10. Interest Payment
11. Interest Payment
12. Interest Payment Notice
13. Interest Payment Confirmation and DGT
14. Tax Payment
15. Tax Docs
16. Proof of Tax Payment

**KSEI as CSD**

- KSEI’s Payment Banks
  - Issuer’s Account
  - KSEI’s Account
  - Custodian’s Account
  - Bond Holder’s Account

*only if the foreign investors would like to enjoy the tax treaty benefits

DGT: Double Taxation Convention
ID Interest Payment Flow of Corporate Bond

Process of Interest Payment (1/2)

1. Upon receiving notice from the bond issuer on the proposed payment of interest, KSEI announces the proposed payment of interest to custodian banks.
2. On recording date, KSEI calculates interest amount on behalf of each bond holder, including tax obligation. On recording date +1, KSEI carries out member entitlement to custodians. Custodian informs the entitlement to the bond holder.
3. On recording date +1, KSEI sends list of bond holders and request for payment to bond issuer (at the latest 3 business days prior to payment date). On the other hand reminder of interest payment confirmation (gross amount) will be sent to the bond issuer 10 business day before payment.
4. Bond holders who want to enjoy tax treaty benefit send tax docs in Double Taxation Agreement in DGT forms to custodian banks for submission to KSEI.
5. Custodians send tax docs in DGT forms to KSEI.
6. Not latest than 1 business day prior to payment date (payment date -1), Bond issuer must instructs one of appointed KSEI’s payment banks transfer interest payment to KSEI’s account. Amount is gross before tax.
7. Payment bank transfers cash to KSEI’s account.
8. Payment bank sends confirmation of cash transfer to KSEI.
9. KSEI sends instruction to transfer interest payment (net of tax) from KSEI’s account to relevant custodian’s account.
10. Payment bank transfers cash from KSEI’s account to custodians’ accounts.
11. Custodians credit to bondholder’s accounts with interest paid by KSEI’s payment bank.  
12. Custodians notify bond holders of interest payment.  
13. KSEI submits interest payment confirmation and DGT form to the bonds issuer.  
14. KSEI as paying agent pays tax to tax office through payment bank.  
15. Bond issuer reports and sends tax docs to tax office.  
16. Tax office clarifies and proof tax payment to Bond issuer.

NOTE: Foreign investors who are not domiciled or who do not wish to enjoy treaty benefits, are not required to submit any tax document.
ID Redemption Payment Flow of Corporate Bond

**Bond Issuer Side**

- **Cash Flow**
  - 3. On RD+1 List of Bondholders
  - 13. Redemption payment confirmation and DGT Forms

**CSD**

- **Information Flow**
  - 1. Announcement
  - 2. On RD+1, Member Entitlement
  - 5. DGT Forms*
  - 9. On PD, Payment Instruction
  - 8. Payment Confirmation
  - 7. Cash Transfer

**Bond Holder Side**

- **Cash Flow**
  - 12. Redemption Payment Notice
  - 4. Tax docs* (DGT Forms)

**KSEI as CSD**

- 13. Redemption

**KSEI's Payment Banks**

- Issuer’s Account
  - 10. Redemption Payment
  - 11. Redemption Payment
  - 14. Tax Payment
- KSEI’s Account
- Custodian’s Account
- Bond Holder’s Account

**Custodian**

- Same Entity

*only if the foreign investors would like to enjoy the tax treaty benefits

DGT: Double Taxation Convention
ID Redemption Payment Flow of Corporate Bond

Process of Redemption Payment

1. Upon receiving notice from the bond issuer on the proposed redemption payment, KSEI announces payment to custodian banks.
2. On recording date, KSEI calculates redemption amount on behalf of each bond holder, including tax obligation. On recording date + 1, KSEI carries out member entitlement to custodians. Custodian informs the entitlement to the bond holder.
3. On recording date + 1, KSEI sends list of bond holders and request for payment to the bond issuer (at the latest 3 business days prior to payment date). On the other hand, reminder of redemption payment confirmation (gross amount) is sent to the bond issuer 10 business day before.
4. Bond holders who want to enjoy tax treaty benefit send tax docs in Double Taxation Agreement in DGT forms to custodian banks for submission to KSEI.
5. Custodians send tax docs in DGT forms to KSEI.
6. Not latest than 1 business day prior to payment date (Payment date – 1), Bond issuer instructs one of appointed KSEI’s payment banks to transfer cash for redemption payment to KSEI’s account. Amount is gross before tax.
7. Payment bank transfers cash to KSEI’s account.
8. Payment bank sends confirmation of cash transfer to KSEI.
9. KSEI sends instruction to transfer principal and last interest payment (net of tax) from KSEI’s account to relevant custodian’s account.
10. Payment bank transfers cash from KSEI’s account to custodians’ accounts.
11. Custodians credit to bondholder’s accounts with redemption and last interest payment paid by KSEI’s payment bank.
12. Custodians notify bond holders of interest and last interest payment.
13. KSEI submits interest payment confirmation and DGT form to the bonds issuer.
14. KSEI as a paying agent pays tax to tax office through payment bank.
15. Bond issuer reports and sends tax documents to tax office.
16. Tax office clarifies and proofs tax payment to Bond Issuer.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
1. Foreign Institutional Investor places order with International Broker
2. International Broker/Domestic Investor places order with Domestic Broker/Bank
3. Domestic Broker/Bank and Counterparty agree on OTC trade (via e.g. phone or Bloomberg)
4. Domestic Broker/Bank and Counterparty report trade to IDX (IBPA) for price discovery (within 30 mins of trade)
5. Domestic Broker/Bank sends trade confirmation to International Broker
6. Foreign Institutional Investor receives trade confirmation
7. Foreign Institutional Investor instructs Global Custodian, on securities settlement and cash/funding details
8. Global Custodian instructs Domestic Custodian/Sub-Registry on (a) securities settlement details, (b) FX request or funding details
9. Domestic Custodian/Sub-Registry reports trade details to IDX (within 30 mins of receipt of instruction), and obtains CTP number.
10. Domestic Custodian/Sub-Registry pre-matches with Counterparty (via phone or email), CGT calculated and agreed
11. Domestic Custodian/Sub-Registry advises Global Custodian on required amendment of settlement amount for CGT
12. Global Custodian requests Foreign Institutional Investor to amend settlement amount for CGT
13. Foreign Institutional Investor sends amended settlement instruction to Global Custodian
14. Global Custodian sends amended settlement instruction to Domestic Custodian/Sub-Registry
15. Domestic Custodian/Sub-Registry and Counterparty pre-match again on amended settlement amount (via phone or email)
16. Domestic Custodian/Sub-Registry confirms actual FX amount to Global Custodian
17. Domestic Custodian/Sub-Registry funds its account at BI via RTGS
18. Domestic Custodian/Sub-Registry enters or uploads trade details into BI-SSSS system
19. Domestic Custodian/Sub-Registry retrieves BI-SSSS matching status
20. Upon settling cash, BI-RTGS sends debit/credit confirmation to Domestic Custodian/Sub-Registry
21. Upon settling securities, BI-SSSS sends settlement confirmation for securities to Domestic Custodian/Sub-Registry
22. Domestic Custodian/Sub-Registry sends settlement confirmation to Global Custodian
23. Global Custodian sends settlement confirmation to Foreign Institutional Investor
24. Global Custodian funds account with Domestic Custodian/Sub-Registry
25. Domestic Custodian/Sub-Registry sends statement of securities to Global Custodian (at end of day)
26. Domestic Custodian/Sub-Registry sends debit/credit information in cash statement (at end of day)
27. Global Custodian sends debit/credit information in cash statement (at end of day) to Foreign Institutional Investor
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
JP Government Bond Market Infrastructure Diagram

<table>
<thead>
<tr>
<th>Trading</th>
<th>Tokyo OTC market</th>
<th>TSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade matching</td>
<td>JASDEC (PSMS)</td>
<td></td>
</tr>
<tr>
<td>CCP</td>
<td>JGBCC</td>
<td>JSCC</td>
</tr>
<tr>
<td>Settlement match.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bond settlement</td>
<td>BOJ (BOJ-NET JGB Services)</td>
<td></td>
</tr>
<tr>
<td>Cash settlement</td>
<td>BOJ (BOJ-NET Funds Transfer System)</td>
<td></td>
</tr>
</tbody>
</table>

- BOJ: Bank of Japan
- JGBCC: Japanese Government Bond Clearing Corporation
- JSCC: Japan Securities Clearing Corporation
- JASDEC: Japan Securities Depository Center, Inc.
- JGB: Japanese Government Bond
- OTC: Over the Counter
- PSMS: Pre-Settlement Matching System
- TSE: Tokyo Stock Exchange
JP Corporate Bond Market Infrastructure Diagram

<table>
<thead>
<tr>
<th>Trading</th>
<th>Tokyo OTC market</th>
<th>TSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade matching</td>
<td>JASDEC (PSMS)</td>
<td></td>
</tr>
<tr>
<td>CCP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Settlement match.</td>
<td>JASDEC (PSMS)</td>
<td></td>
</tr>
<tr>
<td>Bond settlement</td>
<td>JASDEC (Book-Entry Transfer System)</td>
<td></td>
</tr>
<tr>
<td>Cash settlement</td>
<td>BOJ (BOJ-NET Funds Transfer System)</td>
<td></td>
</tr>
</tbody>
</table>

BOJ: Bank of Japan  
JASDEC: Japan Securities Depository Center, Inc.  
OTC: Over the Counter  
PSMS: Pre-Settlement Matching System  
TSE: Tokyo Stock Exchange

Note 1: Non fixed income bonds such as convertible bonds are not included here.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
JP Government Transaction Flow for Domestic Trades
OTC Market (JGB) / DVP through Trade Matching (PSMS)

1. Trade
   2. Trade report
   3. Trade Matching
      Standing Settlement Instruction
      JASDEC (PSMS)
   4. Notice Data of Trade Matching Status
   5. Settlement Matching
   6. JGB Transfer Instruction
   7. Notice of Acceptance of JGB Transfer Instruction for DVP

BOJ (BOJ-NET)

8-1. DVP Request
8-2. Notice of Acceptance of DVP Request
10. Bond Settlement
10. Cash Settlement

DVP

RTGS

Buy Side's Agent for Securities
(Deliverer of JGB)

8-2. Notice of DVP Request by Deliverer of JGB
7. Notice of JGB Transfer Instruction for DVP
7. Notice of Acceptance of JGB Transfer Instruction for DVP

Buy Side's Agent for Security Services

11. Notice of DVP Settlement
10. Notice of DVP Settlement

Buy Side's Agent for Funds
(Sender of Funds)

11. Notice of Credit to Current Account for DVP
7. Notice of JGB Transfer Instruction for DVP
8-2. Notice of DVP Request by Deliverer of JGB
9-1. DVP Request
9-2. Notice of Acceptance of DVP Request
11. Notice of DVP Settlement

Buy Side's Agent for Funds
(Receiver of JGB)
JP Government Transaction Flow for Domestic Trades
OTC Market (JGB) / DVP through Trade Matching (PSMS)

OTC Market

1. Sell side and buy side trade government bond over-the-counter.
2. Both sell side and buy side send trade report to Japan Securities Depository Center, Inc. (JASDEC).
3. JASDEC performs trade matching.
4. JASDEC notifies both sell side and buy side of trade matching status.
5. JASDEC performs settlement matching with Standing Settlement Instruction (SSI) generated by Pre-Settlement Matching System (PSMS).
6. JASDEC sends JGB transfer instruction to Bank of Japan (BOJ).
7. BOJ notifies JASDEC, sell side and buy side of acceptance of instruction.
8-1. Sell side enters DVP request to BOJ.
8-2. BOJ notifies sell side and buy side of acceptance of instruction.
9-1. Buy side enters DVP request to BOJ.
9-2. BOJ notifies buy side of acceptance of instruction.
10. BOJ performs bond and cash settlement.
11. When DVP settlement completed, BOJ notifies sell side and buy side of bond and cash settlement.
JP Government Transaction Flow for Domestic Trades
OTC Market (JGB) / DVP (New BOJ-NET) through Trade Matching (PSMS) and JGBCC

Source: Bank of Japan and JASDEC (modified by presenter)
JP Government Transaction Flow for Domestic Trades
OTC Market (JGB) / DVP (New BOJ-NET) through Trade Matching (PSMS) and JGBCC

Source: Bank of Japan (modified by presenter)
1. The seller and buyer trade government bond over-the-counter.
2. Both seller and buyer send Trade Report data into PSMS (Pre-Settlement Matching System).
3. PSMS performs trade matching.
4. PSMS sends the Notice Data of Trade Matching Status to both sides of trade.
5. PSMS transmits the message of Matched Trade Report data to JGBCC.
6. JGBCC makes approval of obligation.
7. JGBCC sends the Notice Data of Approval of Obligation to the seller and buyer via PSMS.
8. JGBCC performs the novation.
9. JGBCC sends the Notice Data of Novation to the seller and buyer via PSMS.
10. JGBCC performs the netting.
11. JGBCC sends the Notice Data of Netting to the seller and buyer via PSMS.
12. JGBCC compiles DVP order.
13. JGBCC sends the JGB Transfer Instruction for DVP to BOJ-NET.
14. BOJ-NET sends the Notice of Acceptance of JGB Transfer Instruction for DVP to the seller, the buyer and JGBCC.
15-1. The seller enters DVP Request to BOJ-NET.
15-2. The buyer enters DVP Request to BOJ-NET. (for cash)
16-1. BOJ-NET sends the Notice of Acceptance of DVP Request to seller and completes settlement.
16-2. BOJ-NET sends the Notice of Acceptance of DVP Request to buyer and completes settlement. (for cash)
17. When DVP settlement completed, BOJ-NET sends the Notice of credit to current account for DVP to the seller, buyer and JGBCC.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. **Bond Transaction Flow for Domestic Trades (Corporate Bond)**

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
JP Bond Transaction Flow for Domestic Trades

Sell Side

1. Trade
2. Trade Report
4. Notice of Matching Status
6. Notice of Matching Status
14. Settlement Report (Bond)
12. Settlement Report (Cash)

JASDEC (PSMS)

3. Trade Matching
5. Settlement Matching
(Book Entry Transfer System)
7. Holding Bonds
13. Bond Settlement
8. Fund Settlement Data for DVP
12. Notice of Receipt Completion (Cash)

BOJ (BOJ_NET)

11. Cash Settlement
9. Payment Request (Cash)
10. Payment Instruction (Cash)
12. Settlement Report (Cash)

Buy Side

2. Trade Report
4. Notice of Matching Status
6. Notice of Matching Status
14. Settlement Report (Bond)

12. Settlement Report (Cash)

OTC Market

1. Sell side and buy side trade corporate bonds over-the-counter.
2. Both sell side and buy side send trade report to Japan Securities Depository Center, Inc. (JASDEC).
3. JASDEC performs trade matching.
4. JASDEC notifies both sell side and buy side of trade matching status.
5. JASDEC performs settlement matching with Standing Settlement Instruction (SSI) generated by Pre-Settlement Matching System (PSMS).
6. JASDEC notifies sell side and buy side of settlement matching status.
7. JASDEC holds bonds with its book-entry transfer system.
8. JASDEC sends fund settlement data for DVP to Bank of Japan (BOJ).
9. BOJ sends payment request to buy side.
10. Buy side sends payment instruction to BOJ.
11. BOJ executes cash settlement.
12. BOJ notifies sell side, buy side and JASDEC of cash receipt completion.
13. JASDEC executes bond settlement.
14. JASDEC sends bond settlement report to sell side and buy side.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
JP Interest Payment Flow of Government Bond

**Bond Issuer Side**
- MOF

**CSD**
- BOJ as CSD

**Bond Holder Side**
- BOJ (BOJ-NET) as Paying Agent
- AMI (Account Management Institution)

**Cash Flow**
- 1. Payment Request
- 2. Approval
- 3. Notification of Payment Details (Estimated)
- 4. Notification of Payment Details (Final)
- 5. Transfer Cash
- 6. Interest Payment
- 7. Notification of Payment Details (Settled)
- 8. Interest Payment
- 9. Interest Payment Notice
- 10. Tax Payment (Income Tax)
- 11. Tax Payment (Local Tax)

**Information Flow**
- 1. Payment Request (Same Entity, No Confirmation Necessary)
- 2. Approval
- 3. Notification of Payment Details (Estimated)
- 4. Notification of Payment Details (Final)
- 5. Transfer Cash
- 6. Interest Payment
- 7. Notification of Payment Details (Settled)
- 8. Interest Payment
- 9. Interest Payment Notice
- 10. Tax Payment (Income Tax)
- 11. Tax Payment (Local Tax)
JP Interest Payment Flow of Government Bond

Process of Interest Payment

1. Bank of Japan (BOJ) as a paying agent sends request of interest payment to Ministry of Finance (MOF).
2. MOF approves request of interest payment from BOJ.
3. BOJ as a paying agent notifies estimated details of interest payment to account management institutions. Since BOJ also functions as CSD of government bond, no confirmation is necessary before this process.
4. BOJ as a paying agent notifies final details of interest payment to account management institutions.
5. BOJ as a paying agent transfers cash for interest payment from MOF’s account to BOJ’s account.
6. BOJ as a paying agent makes interest payments, deducting income tax if applicable, to account management institutions via BOJ-NET.
7. BOJ as a paying agent notifies details of a settled interest payment to account management institutions.
8. Account management institutions credit to bondholder’s accounts with interest paid by BOJ, deducting local tax if applicable.
10. BOJ as a paying agent pays income tax to tax office via BOJ’s account, if it’s applicable.
11. Account management institutions pay local tax to tax office if applicable.
JP Redemption Payment Flow of Government Bond

Bond Issuer Side

MOF

1. Payment Request
2. Approval

BOJ as Paying Agent

Same Entity (No Confirmation Necessary)

CSD

BOJ as CSD

7. Redemption (DVP)

Bond Holder Side

Bond Holder

10. Redemption Payment Notice

AMI (Account Management Institution)

3. Notification of Payment Details (Estimated)
4. Notification of Payment Details (Final)
8. Notification of Payment Details (Settled)

Account Management Institution

BOJ(BOJ-NET)

5. Interest Payment

BOJ's Account

6. Interest Payment

AMI's Account

9. Redemption Payment

Bond Holder's Account

11. Tax Payment (Income Tax)

12. Tax Payment (Local Tax)

Tax Office

Cash Flow

Information Flow
Process of Redemption Payment

1. Bank of Japan (BOJ) as a paying agent sends request of redemption and last interest payment to Ministry of Finance (MOF).
2. MOF approves request of redemption and last interest payment from BOJ.
3. BOJ as a paying agent notifies estimated details of redemption and last interest payment to account management institutions. Since BOJ also functions as CSD of government bond, no confirmation is necessary before this process.
4. BOJ as a paying agent notifies final details of redemption and last interest payment to account management institutions.
5. BOJ as a paying agent transfers cash for redemption payment from MOF’s account to BOJ’s account.
6. BOJ as a paying agent makes redemption and last interest payments, deducting income tax if applicable, to account management institutions via BOJ-NET.
7. BOJ as CSD makes bond redemption.
8. BOJ as a paying agent notifies details of a settled redemption and last interest payment to account management institutions.
9. Account management institutions credit to bondholder’s accounts with redemption and last interest paid by BOJ, deducting local tax if applicable.
10. Account management institutions notifies bond holders of redemption and last interest payment.
11. BOJ as a paying agent pays income tax to tax office via BOJ’s account, if it’s applicable.
12. Account management institutions pay local tax to tax office if applicable.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
1. Paying agent sends payment request of interest to bond issuer.
2. Bond issuer instructs paying agent to pay interest.
3. Bond holders send their tax status data to account management institutions (AMIs).
4. AMIs of bond holders send the tax status data of bondholders to Japan Securities Depository Center, Inc. (JASDEC).
5. JASDEC sends payment request of interest to paying agent.
6. Paying agent approves request from JASDEC.
7. Paying agent transfers cash for interest payment from issuer’s account to its own account.
8. Paying agent instructs BOJ to transfer cash to AMIs.
9. BOJ makes interest payments, deducting income tax if applicable, to account management institutions via BOJ-NET.
10. AMIs credit to bondholder’s accounts with interest paid by paying agent, deducting local tax if applicable.
11. AMIs notifies bond holders of interest payment.
12. Paying agent pays income tax to tax office via its own account, if tax is applicable.
13. Account management institutions pay local tax to tax office if applicable.
JP Redemption Payment Flow of Corporate Bond

1. Payment Request
2. Payment Instruction
3. Bond Holder’s Tax Status Data
4. Bond Holder’s Tax Status Data
5. Payment Request
6. Approval
7. Cash Transfer
8. Instruction for cash transfer
9. Redemption Payment
10. Redemption
11. Delete Bond Registration
12. Redemption Payment
13. Tax Payment (Income Tax)
14. Redemption Payment Notice
15. Tax Payment (Local Tax)
1. Paying agent sends payment request of redemption to bond issuer.
2. Bond issuer instructs paying agent to pay redemption.
3. Bond holders send their tax status data to account management institutions (AMIs).
4. AMIs of bond holders send tax status data of bondholders to JASDEC.
5. JASDEC sends payment request of redemption to paying agent.
6. Paying agent approves request from JASDEC.
7. Paying agent transfers cash for redemption payment from issuer’s account to its own account.
8. Paying agent instructs BOJ to transfer cash, deducting income tax if applicable, to AMIs’ accounts.
9. BOJ makes redemption payments to AMIs via BOJ-NET.
10. JASDEC makes bond redemption.
11. Paying agent deletes bond registration.
12. AMIs credit to bondholder’s accounts with redemption paid by paying agent, deducting local tax if applicable.
13. Paying agent pays income tax to the tax office via its own account, if tax is applicable.
14. AMIs notifies bond holders of redemption payment.
15. Account management institutions pay local tax to tax office if applicable.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
JP Bond Transaction Flow for Foreign Investors OTC Market (JGB) / DVP

1. Foreign Institutional Investor places order with International Broker
2. International Broker places order with Domestic Broker/Bank
3. Domestic Broker/Bank trades OTC with Counterparty (via phone or e.g. Bloomberg)
4. Domestic Broker/Bank send trade confirmation to International Broker
5. Foreign Institutional Investor receives trade confirmation
6. Foreign Institutional Investor instructs Global Custodian on securities settlement details
7. Global Custodian instructs Domestic Custodian on securities settlement details
8. Domestic Broker and domestic Custodian input trade details into PSMS
9. PSMS responds with matching status
10. Domestic Custodian reports transaction status update to Global Custodian

11. Domestic Custodian/Direct Participant receive Notification of DVP Settlement and Acceptance from BOJ-NET
12. Domestic Custodian/Direct Participant send DVP request to BOJ-NET
13. Domestic Custodian/Direct Participant as well as JGBCC receive confirmation of DVP settlement
14. Domestic Custodian sends settlement confirmation to Global Custodian
15. Global Custodian funds account with Domestic Custodian, or into FCY nostro (before end of day)
16. Global Custodian sends settlement confirmation to Foreign Institutional Investor
17. Domestic Custodian sends securities statement to Global Custodian
18. Domestic Custodian sends cash credit/debit confirmation in cash statement to Global Custodian
19. Global Custodian sends credit/debit confirmation in cash statement to Foreign Institutional Investor
Republic of Korea (KR)

1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
- OTC: Over the Counter
- KRX: Korea Exchange
- KSD: Korea Securities Depository
- KSD SAFE+: the name of KSD's System
  (SAFE: Speedy, Accurate, Faithful, Efficient)

- BOK: Bank of Korea
- BOK Wire+: the name of BOK's System
- Bank: Commercial Bank
<table>
<thead>
<tr>
<th>Trading</th>
<th>OTC market</th>
<th>KRX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade matching</td>
<td>KSD(KSD SAFE+)</td>
<td>KRX</td>
</tr>
<tr>
<td></td>
<td>Settlement detail</td>
<td></td>
</tr>
<tr>
<td>CCP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Settlement match.</td>
<td></td>
<td>KRX</td>
</tr>
<tr>
<td>Bond settlement</td>
<td>KSD (KSD SAFE+)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Settlement detail</td>
<td></td>
</tr>
<tr>
<td>Cash settlement</td>
<td>BOK(BOK Wire+) or Bank</td>
<td>Bank</td>
</tr>
</tbody>
</table>

- OTC: Over the Counter
- KRX: Korea Exchange
- KSD: Korea Securities Depository
- KSD SAFE+: the name of KSD's System (SAFE: Speedy, Accurate, Faithful, Efficient)
- BOK: Bank of Korea
- BOK Wire+: the name of BOK's System
- Bank: Commercial Bank
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
OTC Market

1. Sell side and buy side trade over the counter mostly with private messenger, and some transactions are done with FreeBond provided by KOFIA which is a supporting and confirmation system for bond trading.
2. Financial investment companies engaged in trading must report trading details to KOFIA within 15 minutes after trading execution. They also report trading details to FSS via Foreign Investment Management System (FIMS).
3. KOFIA discloses this information on its Bond-Trade Report & Information Service (B-Tris).
4. Sell side and buy side send trade data to Korea Securities Depository (KSD).
5. KSD collates trade data from the sell side and buy side.
6. KSD sends matching status advise to the sell side and buy side.
7. Sell side and buy side sends settlement instructions for DVP to KSD.
8. KSD holds bonds before cash settlement.
9. KSD sends settlement data to Bank of Korea (BOK).
10. The BOK sends payment request (cash) to the buy side.
10-1. The BOK sends payment request (cash) to the buy side.
10-2. The buy side sends the payment instruction for DVP to BOK.
11. BOK executes cash settlement.
12. BOK sends settlement report to sell side, the buy side and KSD.
13. KSD executes bond settlement.
14. KSD sends settlement report to sell side and buy side.
KR Government Bond Transaction Flow for Domestic Trades (Exchange)

Sell Side

1. Trade Order

2. Matching

3. Trade Confirmation

4. Taking Obligation (novation) (KRX-member)

5. Netting

6. Settlement Detail

7. Settlement Instructions for DVP

KRX (KTS)

8. Holding Bonds

9. Settlement Data for DVP

10. Cash Settlement Through KRX a/c

11. Settlement Report (Cash)

12. Bond Settlement Through KRX a/c

13. Settlement Report (Bond)

Buy Side

1. Trade Order

6. Settlement Detail

KSD (SAFE+)

13. Settlement Report (Bond)

BOK (BOK-Wire+)

11. Settlement Report (Cash)

10. Cash Settlement Through KRX a/c
1. Sell side and buy side send trade order to Korea Exchange (KRX).
2. KRX performs matching.
3. KRX makes trade confirmation.
4. KRX takes obligation (novation) for KRX members.
5. KRX performs netting.
6. KRX sends settlement details to sell side and buy side.
7. KRX sends settlement instruction for DVP to Korea Security Depository (KSD).
8. KSD holds bonds before cash settlement.
9. KSD sends settlement data to Bank of Korea (BOK).
10. BOK executes cash settlement.
11. BOK sends settlement report (cash) to sell side, the buy side and KSD.
12. KSD executes bond settlement through KRX account.
13. KSD sends settlement report to sell side and buy side.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
KR Corporate Bond Transaction Flow for Domestic Trades (OTC)

1. Transferring order information
2. Acknowledgement of order
3. Execution/Rejection of order
4. Trade
5. Reporting Trade details
6. Disclosure
7. Trade Data
8. Matching
9. Matching Status Advice
10. Settlement Instructions for DVP (no needs for typical flow)
11. Holding Bonds
12. Settlement Data for DVP
13. Cash Settlement
14. Settlement Report (Cash)
15. Bond Settlement
16. Settlement Report (Bond)

FSS (FIMS)
KOFIA
(KOFIA (FreeBond))
KSD
(KSD (SAFE+))
BOK
(BOK-Wire+)
BOK
(B-TRiS)
1. If the client is a foreign investor, the sell side and/or the buy side of securities companies transfer order information to Financial Supervisory Service (FSS) via Foreign Investment Management System (FIMS).
2. FSS acknowledges or rejects order.
3. If holdings is enough, FSS transfers order information to the sell side and/or the buy side of securities companies and Korea Exchange.
4. The sell and buy trade over the counter with a formalized bond trading system, whose name is FreeBond.
5. Both the sell and buy must report trading details to the KOFIA within 15 minutes after trading execution.
6. KOFIA discloses this information on its Bond-Trade Report and Information Service (B-TrIS).
7. The sell side and Buy side send trade data to KSD.
8. KSD collates trade data from the seller and buyer.
9. KSD sends matching status advise to the sell side and buy side.
10. The sell side and buy side send settlement instructions for DVP to KSD.
11. KSD holds bonds before cash settlement.
12. KSD sends settlement data to BOK.
13. BOK executes cash settlement.
14. BOK sends settlement report to the sell side, buy side and KSD.
15. KSD executes bond settlement.
16. KSD sends settlement report to the sell side and buy side.
KR Corporate Bond Transaction Flow for Domestic Trades (Exchange)

1. Trade Order
2. Matching
3. Trade confirmation
4. Taking Obligation (novation) (KRX-member)
5. Netting
6. Settlement Detail
7. Settlement Instruction for DVP
8. Holding Bonds
9. Bond Settlement Through KRX a/c
10. Settlement Report (Bond & Cash)

KRX (Exture)
KSD (SAFE+)
Commercial Banks

Buy Side
Sell Side
KR Corporate Bond Transaction Flow for Domestic Trades (Exchange)

Exchange Market

1. Sell side and buy side send trade order to Korea Exchange (KRX).
2. KRX performs matching.
3. KRX makes trade confirmation.
4. KRX takes obligation (novation) for KRX members.
5. KRX performs netting.
6. KRX sends settlement details to sell side and buy side.
7. KRX sends settlement instruction for DVP to Korea Security Depository (KSD).
8. KSD holds bonds before cash settlement.
9. KSD executes bond & cash settlement for DVP through KRX account.
10. KSD sends settlement report to sell side and buy side.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
KR Interest Payment Flow of Government Bond

**Bond Issuer Side**
- MOF
- Registrar (BOK)
  - (Entrust Interest Payment Business)

**Bond Holder Side**
- Bond Holder
  - KSD's Participant
  - KSD
    - Same Entity (No Confirmation Necessary)
    - 1. Interest Payment List Notice

**CSD**
- KSD
  - 1. Interest Payment List Notification
  - 2. Input & Request the Interest via BOK Terminal
  - 4. Payment Instruction
  - 5. Interest Payment (net)
  - 7. Interest Payment Notice

**Cash Flow**
- 3. Interest Payment
- 5. Interest Payment (net)
- 6. Interest Payment (net)
- 8. Tax Payment (for Residents)
- 9. Tax Payment (for Non-residents)

**Information Flow**
- BOK (BOK-Wire+)
  - 3. Interest Payment
  - 4. Payment Instruction
  - 6. Interest Payment (net)
  - 8. Tax Payment (for Residents)
  - 9. Tax Payment (for Non-residents)

**Other**
- Tax Office
KR Interest Payment Flow Government Bond

Process of Interest Payment

1. Korea Securities Depository (KSD) notifies KSD participants of interest payment list.
2. KSD inputs and request the interest via Bok terminal.
3. BOK makes interest payment to BOK account of KSD.
4. KSD withholds income tax on receiving interest and sends payment instruction to BOK.
5. BOK transfers interest from BOK account of KSD to KSD participant.
6. KSD participants make interest payments to bondholders.
7. KSD’s participants notify bond holders of interest payment.
8. KSD’ pays tax for residents to tax office.
9. KSD’s participants pay tax for non-residents to tax office.
KR Interest Redemption Flow of Government Bond

**Bond Issuer Side**
- MOF
  - Registrar (BOK)
    - 9. Delete Bond Registration

**KSD**
- 8. Redemption
  - 4. Payment Instruction
- 3. Redemption Payment
- 5. Redemption Payment (net)

**CSD**
- KSD's Participant
  - 7. Redemption Notice
- KSD
  - Same Entity (No Confirmation Necessary)
  - 2. Input & Request Redemption via BOK Terminal
  - Same Entity

**Bond Holder Side**
- Bond Holder
  - KSD's Account
  - Custodian's Account
- Custodian
  - Bond Holder's Account
  - 6. Redemption Payment (net)

**BOK (BOK-Wire+)**
- BOK Account
  - 3. Redemption Payment
  - KSD's Account

**Tax Office**
- 10. Tax Payment (for Residents)
- 11. Tax Payment (for Non-residents)
- Tax Office
Process of Redemption

1. Korea Securities Depository (KSD) notifies KSD participants of redemption payment list.
2. KSD inputs and request the redemption via Bok terminal.
3. BOK makes redemption payment to BOK account of KSD.
4. KSD withholds income tax on receiving principal and sends payment instruction to BOK.
5. BOK transfers redemption payment from BOK account of KSD to KSD participant.
6. KSD participants make redemption payments to bondholders.
7. KSD’s participants notify bond holders of interest payment.
8. KSD makes bond redemption.
9. BOK deletes the registration of redeemed bond.
10. KSD’ pays tax for residents to tax office.
11. KSD’s participants pay tax for non-residents to tax office.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
1. Korea Securities Depository (KSD)'s participants notifies KSD of information of bond holders.
2. KSD sends KSD's bank of bondholders-list.
3. KSD’s bank notifies issuer's payment bank of interest payment via KOREA FINANCIAL TELECOMMUNICATIONS & CLEARINGS INSTITUTE (KFTC).
4. A bond issuer makes fund payment for interest to a payment bank.
5. Payment Bank executes interest payment from issuer’s account to it’s account.
6. Payment bank instructs BOK to pay interest from payment bank’s account to KSDs’ Bank’s account.
7. BOK executes interest payment from payment banks’ account to KSD’s account.
8. KSD instructs KSD’s bank to pay interest to custodians (KSD participants)' account.
9. KSD’s bank executes interest payment from KSD’s account to custodians (KSD participants)' account, deducting income tax if applicable.
10. KSD notifies it’s participants of interest payment.
11. Custodian (KSD’s participants) credit bond holders’ accounts with interest paid by issuer, deducting tax if applicable.
12. Custodian (KSD’s participants) notify bond holders of interest payment.
13. KSD’s bank pays tax for residents to tax office.
14. KSD’s participants pay tax for non-residents to tax office.
KR Redemption Payment Flow of Corporate Bond

**Bond Issuer Side**
- Bond Issuer
  - 4. Fund payment (deposit principal)
- Payment Bank
  - 6. Payment Instruction
  - Same Entity

**CSD**
- KSD
  - 10. Redemption
  - 2. Bondholders list
  - 3. Notification Via KFTC
  - 8. Payment Instruction
- KSD’s Bank
  - 11. Redemption Payment Notification
  - Same Entity

**Bond Holder Side**
- Bond Holder
  - 13. Redemption Payment Notice
  - 1. Notification of Bond Holder’s information
  - 11. Redemption Payment Notification
- KSD’s Participant
  - 1. Notification of Bond Holder’s information

**Payment Bank**
- Issuer’s Account
  - 5. Interest Payment
- Payment Bank’s Account
  - 7. Redemption Payment
- BOK(BOK-Wire+)
  - 9. Redemption Payment (net)
- KSD’s Account
  - Same Entity

**Custodian**
- Participant’s Account
  - 12. Redemption Payment
- KSD’s Bank
  - 8. Payment Instruction
- KSD’s Account
  - Same Entity

**Tax Office**
- 14. Tax Payment (for residents)
- 15. Tax Payment (for non-residents)
Process of Redemption Payment

1. Korea Securities Depository (KSD)’s participants notifies KSD of information of bond holders.
2. KSD sends KSD’s Bank of bondholders-list.
3. KSD’s bank notifies issuer’s payment bank of redemption payment via KOREA FINANCIAL TELECOMMUNICATIONS & CLEARINGS INSTITUTE (KFTC).
4. A bond issuer makes fund payment for interest to a payment bank.
5. Payment Bank executes redemption payment from issuer’s account to it’s account.
6. Payment Bank instructs BOK to pay redemption from payment bank’s account to KSD’s account.
7. BOK executes redemption payment from payment banks’ account to KSD’s account.
8. KSD instructs KSD’s Bank to pay redemption to custodians (KSD participants)’ account.
9. KSD’s bank executes redemption payment from KSD’s account to custodians (KSD participants)’ account, deducting tax if applicable.
10. KSD makes bond redemption.
11. KSD notifies its participants of redemption payment.
12. Custodian (KSD’s participants) credit bond holders’ accounts with redemption paid by issuer, deducting tax if applicable.
13. Custodian (KSD’s participants) notify bond holders of redemption payment.
14. KSD’s Bank pays tax for residents to tax office.
15. KSD’s participants pay tax for non-residents to tax office.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
KR Bond Transaction Flow for Foreign Investors OTC Market / DVP

1. Trade Order
2. Trade Order
3. Agreement on Trade & Confirmation
4. Trade Reporting
5. Trade Confirmation
6. Sending of Trade Details
7. Trade Confirmation
8. Settlement Instruction
9. a Settlement Instruction
10. Transmission of Settlement Details
11. Affirmation of Settlement Details
12. Affirmation Status
13. Transaction Status Update
14. FX Confirmation
15. Funding of BoK Account
16. Confirmation of Debit/Credit
17. Settlement Confirmation
18. Settlement Confirmation
19. Funding of Trades
20. Settlement Confirm
21. Securities Statement
22. Cash Statement
23. Cash Statement

Foreign Institutional Investor (direct or Investment Manager)
International Broker
Domestic Broker or Bank
Counterparty
Global Custodian
As Cash Correspondent
KOFIA
Cross-Border
Trading
Clearing
Matching & Settlement
BOK BOK-Wire
Cash Settlement
Domestic Custodian
As FX Bank
As Cash Correspondent
KSD
Global Custodian
Domestic Custodian
As Cash Correspondent
Global Custodian
Domestic Custodian
As Cash Correspondent
Global Custodian
Domestic Custodian
As Cash Correspondent
**KR Bond Transaction Flow for Foreign Investors OTC Market / DVP**

<table>
<thead>
<tr>
<th>Trade Date</th>
<th>Settlement Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>T+1 (SD-1)</td>
<td></td>
</tr>
</tbody>
</table>

1. Foreign Institutional Investor places order with International Broker
2. International Broker places order with Domestic Broker/Bank
3. Domestic Broker/Bank trades OTC with Counterparty (via phone or e.g. Bloomberg)
4. Domestic Broker/Bank and Counterparty report trade to KOFIA within 15 minutes of trade
5. Domestic Broker/Bank send trade confirmation to International Broker
6. Domestic Broker/Bank send trade details to KSD
7. Foreign Institutional Investor receives trade confirmation
8. Foreign Institutional Investor instructs Global Custodian on securities settlement details, and FX/funding
9. Global Custodian instructs Domestic Custodian on (a) securities settlement details, and (b) FX/funding requirements
10. KSD sends Preliminary Settlement Data to Domestic Custodian, via SAFE
11. Domestic Custodian affirms settlement details
12. KSD sends affirmation status to Domestic Broker/Bank
13. Domestic Custodian reports transaction status update to Global Custodian
14. Domestic Custodian sends FX confirmation to Global Custodian
15. Domestic Custodian funds BOK account
16. Upon transfer of cash, BOK sends settlement confirmation to Domestic Custodian
17. Upon transfer of securities, KSD sends settlement confirmation to Domestic Custodian
18. Domestic Custodian sends settlement confirmation to Global Custodian
19. Global Custodian funds account with Domestic Custodian, or into FCY nostro (before end of day)
20. Global Custodian sends settlement confirmation to Foreign Institutional Investor
21. Domestic Custodian sends securities statement to Global Custodian
22. Domestic Custodian sends cash credit/debit confirmation in cash statement to Global Custodian
23. Global Custodian sends credit/debit confirmation in cash statement to Foreign Institutional Investor
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
ETP – Electronic Trading Platform  BNM - Bank Negara Malaysia
RENTAS – Real-time Electronic Transfer of Funds and Securities
BMS – Bursa Malaysia Securities  BTS – Bursa Trade System
BMSC – Bursa Malaysia Securities Clearing  BCS – Bursa Clearing & Settlement System
SSDS – Scripless Securities Depository System  BMD – Bursa Malaysia Depository
CDS – Central Depository System  IFTS – Interbank Funds Transfer System
ETP – Electronic Trading Platform  BNM - Bank Negara Malaysia
RENTAS – Real-time Electronic Transfer of Funds and Securities
BMS – Bursa Malaysia Securities  BTS – Bursa Trade System
BMSC – Bursa Malaysia Securities Clearing  BCS – Bursa Clearing & Settlement System
SSDS – Scripless Securities Depository System  BMD – Bursa Malaysia Depository
CDS – Central Depository System  IFTS – Interbank Funds Transfer System
1. Bond Market Infrastructure Diagram

2. **Bond Transaction Flow for Domestic Trades (Government Bond)**

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
MY Government Bond Transaction Flow for Domestic Trades (OTC)

1. Trade (direct dealing or via Money Brokers)
2. Trade Reporting
3. Initiate Unconfirmed Settlement Advice
4. Confirmation
5. Acknowledgement
6. Bond Settlement
7. Cash Settlement
8. Settlement Completion Advice (Bond & Cash)

Rentas

(RENTAS-SSDS)

(RENTAS-IFTS)

DVP

ETP

Buy Side

Sell Side
MY Government Bond Transaction Flow for Domestic Trades (OTC)

OTC Market

1. Sell side and buy side trade over the counter by telephone (direct dealing or through Money Broker). 95% of bond trades are dealt in OTC market. Commercial banks and Islamic banks can trade bonds.
2. All trades are recorded in Electronic Trading Platform (ETP).
3. Sell side (or buy side) inputs trade data into RENTAS as initiate unconfirmed settlement advice.
4. Buy side (or sell side) confirms an unconfirmed settlement advice using by confirmation menu of RENTAS.
5. Sell side and buy side access report menu of RENTAS and confirms that confirmation of local matching is performed.
6. On settlement date, bond and cash are settled on DVP basis.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
MY Corporate Bond Transaction Flow for Domestic Trades

1. Trade (direct dealing or via Money Brokers)
2. Trade Reporting
3. Initiate Unconfirmed Settlement Advice
4. Confirmation
5. Acknowledgement

ETP

RENTAS

(RENTAS-SSDS)

DVP

(RENTAS-IFTS)

6. Bond Settlement
7. Cash Settlement
8. Settlement Completion Advice (Bond & Cash)
1. Sell side and buy side trade over the counter by telephone (direct dealing or through Money Broker). 95% of bond trades are dealt in OTC market. Commercial banks and Islamic banks can trade the bonds.

2. All trades are recorded in Electronic Trading Platform (ETP).

3. Sell side (or buy side) inputs trade data into RENTAS as initiate unconfirmed settlement advice.

4. Buy side (or sell side) confirms an unconfirmed settlement advice using by Confirmation menu of RENTAS.

5. Sell side and buy side access Report menu of RENTAS and confirms that confirmation of local matching is performed.

6. On settlement date, bond and cash are settled on DVP basis.

7. Sell side and buy side access Report menu of RENTAS and confirms report of Bond settlement and cash settlement.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
MY Interest Payment Flow of Government Bond

**Bond Issuer Side**

- MOF
  - 2. Payment Instruction

**Facility Agent**

- 3. Payment Instruction

**CSD**

- BNM (RENTAS-SSDS) as CSD
  - 1. Debit Notification

**Bond Holder Side**

- Bond Holder
  - 6. Interest Payment Notice

**Authorized Depository Institution (ADI)**

- Same Entity

**BNM (RENTAS-IFTS)**

- MOF’s Account
  - 4. Interest Payment
  - (No Tax Data Necessary)

**AD1**

- 5. Interest Payment
  - Bond Holder’s Account
  - (No Tax Data Necessary)

**Tax Office**
1. On interest payment day, RENTAS sends Debit Notifications to Facility Agents (FAs) on the actual amount of interest proceeds to be paid to Paying Agent.
2. MOF instructs FAs to make redemption payment.
3. FAs send payment instruction to Paying Agent.
4. BNM executes interest payment from MOF’s account to Authorized Depository Institutions (ADIs)’ accounts.
5. ADIs credit to bond holder’s accounts with interest paid by MOF.
6. ADIs notify bond holders of interest payment.
MY Redemption Payment Flow of Government Bond

**Bond Issuer Side**
- MOF
  - 2. Payment Instruction
- Facility Agent
  - 3. Payment Instruction
- BNM as Paying Agent
  - Same Entity

**CSD**
- BNM (RENTAS-SSDS)
  - 1. Debit Notification
  - 5. Redemption

**Bond Holder Side**
- Bond Holder
  - 7. Redemption Payment Notice
- Authorized Depository Institution (ADI)
  - Same Entity

**Cash Flow**
- MOF’s Account 4. Redemption Payment BNM (RENTAS-IIFTS)
- ADI’s Account
- Bond Holder’s Account

**Information Flow**
- BNM (RENTAS-SSDS)
- (No Tax Data Necessary)
- (No Tax Data Necessary)
- Tax Office
- (No Tax for Interest)
- (No Tax for Interest)
MY Redemption Payment Flow of Government Bond

Process of Redemption Payment

1. On interest payment day, RENTAS sends Debit Notifications to Facility Agents (FAs) on the actual amount of interest proceeds to be paid to Paying Agent.
2. MOF instructs FAs to make redemption payment.
3. FAs send payment instruction to Paying Agent.
4. BNM executes redemption payment from MOF’s account to Authorized Depository Institutions (ADIs)’ accounts.
5. BNM as CSD makes bond redemption.
6. ADIs credit to bondholder’s accounts with last interest and principle paid by MOF.
7. ADIs notify bond holders of redemption payment.

Note: It is supposed that redemption always involves last interest payment.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
MY Interest Payment Flow of Corporate Bond

1. Payment Request
2. Payment Instruction
3. Interest Payment
4. Payment Instruction
5. Interest Payment
6. Interest Payment
7. Interest Payment Notice

Bond Issuer Side
- Bond Issuer
- Paying Agent
- Issuer’s Account
- PA’s Account
- (No Tax for Interest)

CSD
- BNM (RENTAS-SSDS) as CSD
- (No Tax Data Necessary)

Bond Holder Side
- Bond Holder
- Authorized Depository Institution (ADI)
- ADI’s Account
- Bond Holder’s Account
- (No Tax for Interest)

Cash Flow
Information Flow

Same Entity
Tax Office
MY Interest Payment Flow of Corporate Bond

Process of Interest Payment

1. Paying agent requests interest payment to bond issuer.
2. Bond issuer instructs paying agent to make interest payment.
3. Paying agent transfers interest from issuer’s account to it’s account.
4. Paying agent instructs Bank Negara Malaysia (BNM) to transfer cash from it’s account to Authorized Depository Institutions(ADIs)’ accounts via RENTAS-IFTS.
5. BNM transfers cash from paying agent’s account to Authorized Depository Institutions(ADIs)’ accounts.
6. ADIs credit to bondholder’s accounts with interest paid by bond issuer.
7. ADIs notify bond holders of interest payment.
MY Redemption Payment Flow of Corporate Bond

**Bond Issuer Side**
- Bond Issuer
  - 1. Payment Request

**Paying Agent**
- 2. Payment Instruction
  - Same Entity (No Confirmation Necessary)
  - 4. Payment Instruction
    - (No Tax Data Necessary)

**CSD**
- BNM (RENTAS-SSDS)
  - 6. Redemption
    - (No Tax Data Necessary)

**Bond Holder Side**
- Bond Holder
  - 8. Redemption Payment Notice
  - Authorized Depository Institution (ADI)
    - Same Entity

**Paying Agent**
- 3. Redemption Payment
  - Issuer’s Account
    - (No Tax for Interest)
    - PA’s Account
      - ADI’s Account
        - 7. Redemption Payment
          - Bond Holder’s Account
            - (No Tax for Interest)

**Tax Office**
Process of Redemption Payment

1. Paying agent requests redemption payment to bond issuer.
2. Bond issuer instructs paying agent to make redemption payment.
3. Paying agent transfers last interest and principle from issuer’s account to it’s account.
4. Paying agent instructs Bank Negara Malaysia (BNM) to transfer cash from it’s account to Authorized Depository Institutions (ADIs)’ accounts via RENTAS-IFTS.
5. BNM transfers cash from paying agent’s account to Authorized Depository Institutions (ADIs)’ accounts.
6. BNM as CSD makes bond redemption.
7. ADIs credit to bondholder’s accounts with last interest and principle paid by bond issuer.
8. ADIs notify bond holders of redemption payment.

Note: It is supposed that redemption always involves last interest payment.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
MY Bond Transaction Flow for Foreign Investors OTC Market / DVP

1 Trade Order
2 Trade Order
3 Agreement on Trade & Confirmation
4 Trade Confirmation
5 Trade Confirmation
6 Trade Reporting
7 Settlement Instruction
8 SettlemenInstruction
8 a Settlement Instruction
9 Pre-matching
8 b FX/Funding Instruction
10 Pre-Matching Status
11 FX Confirmation
12 Capture of Transaction Details & Acknowledgement of Receipt - OR -
12 Advice of unconfirmed Trade & Confirmation of Trade in SSDS
13 Retrieval of Matching Status
14 Funding of BNM Account
15 Settlement Confirmation
16 Confirmation of Debit/Credit
17 Settlement Confirmation
18 Funding of Trades
19 Settlement Confirm
20 Securities Statement
21 Cash Statement
22 Cash Statement

Counter-party
Trading
Clearing
Matching & Settlement
Cash Settlement

International Broker
Domestic Broker or Bank
ETP (Bursa Malaysia)

Domestic Custodian (Authorised Depository Institution, ADI)
Domestic Custodian (Authorised Depository Institution, ADI)

Global Custodian
As Cash Correspondent
As Cash Correspondent
1. Foreign Institutional Investor places order with International Broker
2. International Broker/Domestic Investor places order with Domestic Broker/Bank
3. Domestic Broker/Bank and Counterparty agree on OTC trade (via e.g. phone or Bloomberg)
4. Domestic Broker/Bank sends trade confirmation to International Broker
5. Foreign Institutional Investor receives trade confirmation
6. Domestic Broker/Bank and Counterparty capture trade in ETP, by end of trading day

7. Foreign Institutional Investor instructs Global Custodian, on securities settlement and cash/funding details
8. Global Custodian instructs Domestic Custodian/ADI on (a) securities settlement details, (b) FX request or funding details (since 3rd Party FX possible)
9. Domestic Custodian/ADI and Counterparty pre-match settlement details, via phone
10. Domestic Custodian/ADI sends pre-matching result information (e.g. missing instructions) to Global Custodian
11. Domestic Custodian/ADI provides confirmation of FX booked (in case of earlier FX request)

12. Domestic Custodian/ADI captures settlement details into SSDS and receives SSDS acknowledgment of receipt of data (selling side), OR receives alleged trade notice (advice of unconfirmed trade) from SSDS and confirms settlement details in SSDS (buying side)
13. Domestic Custodian/ADI retrieves settlement matching status
14. Domestic Custodian/ADI effects funding of its account at Bank Negara Malaysia (BNM) via RENTAS (IFTS) if necessary
15. Upon settling securities, SSDS sends settlement confirmation for securities to Domestic Custodian/ADI
16. Upon settling cash, RENTAS sends debit/credit confirmation to Domestic Custodian/ADI
17. Domestic Custodian/ADI sends settlement confirmation to Global Custodian
18. Global Custodian funds account with Domestic Custodian/ADI (before end of day)
19. Global Custodian sends statement of securities settlement to Foreign Institutional Investor
20. Domestic Custodian/ADI sends statement of securities to Global Custodian (at end of day)
21. Domestic Custodian/Sub-registry sends debit/credit information in cash statement (at end of day)
22. Global Custodian sends sends debit/credit information in cash statement to FII (at end of day)
Philippines (PH)

1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
PH Government Bond Market Infrastructure Diagram

Trading

<table>
<thead>
<tr>
<th>Trading</th>
<th>OTC market</th>
<th>Ex. mrkt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade matching</td>
<td>PDEx (Fixed Income Trading System)</td>
<td></td>
</tr>
</tbody>
</table>

CCP

| Settlement match. | PDEx (eDvP) |
| Bond settlement   | PDTC        |
| Cash settlement   | Settle.banks | BSP (PhilPaSS) |

PDEx – Philippine Dealing & Exchange
eDvP – Expanded Delivery vs. Payment System  PDTC – Philippine Depository & Trust Corporation
RoSS – Registry of Scripless Securities  BSP - Bangko Sentral ng Pilipinas
PhilPaSS – Philippine Payments and Settlement System
Cash settlement by settlement banks is for government and corporate bonds.
Trading

<table>
<thead>
<tr>
<th>Trade matching</th>
<th>OTC (quote-driven)</th>
<th>Exchange (order-driven)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>PDEx (Fixed Income Trading System)</td>
</tr>
</tbody>
</table>

CCP

Settlement match.

PDEx (Clearing system)

Bond settlement

PDTC Depository

Cash settlement

BSP (PhilPaSS)

Settle. banks

PDEEx – Philippine Dealing & Exchange
eDvP – Expanded Delivery vs. Payment System  PDTC – Philippine Depository & Trust Corporation
RoSS – Registry of Scripless Securities  BSP -Bangko Sentral ng Pilipinas
PhilPaSS – Philippine Payments and Settlement System
Cash settlement by settlement banks is for government and corporate bonds.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
PH Government Bond Transaction Flow for Domestic Trades GSEDs

Market / DVP

Sell Side

1. Negotiation (OTC)

2. Trade Order

4. Matching Result

6. Settlement Detail

7. Authorization of Settlement Instruction For DVP

15. Monitor Settlement Status

8. Settlement Data

14. Settlement Status

Bureau of Treasury (BTr-RoSS)

9. Holding Bonds

13. Bond Settlement

10. Settlement Data

12. Settlement Report (Cash)

11. Cash Settlement

BSP (PhilPaSS)

Buy Side

2. Trade Order

4. Matching Result

6. Settlement Detail

7. Authorization of Settlement Instruction for DVP

15. Monitor Settlement Status

12. Settlement Report (Cash)
1. In OTC market, the sell side and buy side negotiate before they input the trade data to PDEx. This process is omitted in the Exchange Market.
2. Sell side and buy side trade via PDEx(FI Trading System).
3. PDEx(FI Trading System) matches order or records negotiated deals between sell side and buy side.
4. PDEx(FI Trading System) sends matching result to the sell side and buy side.
5. PDEx(FI Trading System) sends trade data to PDEx(PDEx-RoSS STP Facility).
6. PDEx(PDEx-RoSS STP Facility) sends settlement detail to the sell side and buy side.
7. Sell side and buy side authorize the settlement instruction for DVP.
8. PDEx(PDEx-RoSS STP Facility) sends settlement data to Bureau of Treasury Registry of Scripless Securities(BTr-RoSS).
9. BTr-RoSS holds bonds before cash settlement.
10. BTr-RoSS sends settlement data to Bangko Sentral ng Pilipinas (BSP).
11. BSP executes cash settlement.
12. BSP sends cash settlement report to sell side, buy side and BTr-RoSS.
13. BTr-Ross executes bond settlement.
14. BTr-Ross sends bond settlement status to PDEx-RoSS STP Facility.
15. Sell side and buy side can monitor settlement status via PDEx-RoSS STP Facility.

*GSED: Government Securities Eligible Dealer
PH Government Bond Transaction Flow for Domestic Trades non-GSEDs Market / DVP

*GSED: Government Securities Eligible Dealer

1. Negotiation (OTC)

2. Trade Order

(PDEX)

(FI Trading Systems)

3. Matching

4. Matching Results

5. Trade Data

(BSP)

(PhilPaSS)

6. Settlement Detail

7. Authorization of Settlement Instructions For DVP

17. Bond Settlement Status

8. Check cash balance

9. Earmarked Instruction

10. Cash Settlement Instruction

11. Earmarked Bonds

15. Bond Settlement

12. Cash Settlement

13. Cash Settlement Report

14. Settlement instruction

16. Settlement Status

12. Cash Settlement Report

15. Settlement Report (Bond)

17. Bond Settlement Status

11. Earmarked Bonds

15. Bond Settlement

12. Cash Settlement

13. Cash Settlement Report

15. Settlement Report (Bond)
PH Government Bond Transaction Flow for Domestic Trades
non-GSEDs Market / DVP

*GSED: Government Securities Eligible Dealer

Exchange Market-Non GSEDs

1. In OTC market, sell side and buy side negotiate before they input the trade data to PDEx. This process is omitted in the Exchange Market.
2. Sell side and buy side trade via PDEx (FI Trading System).
3. PDEx (FI Trading System) collates orders from sell side and buy side.
4. PDEx (FI Trading System) sends matching results to sell side and buy side.
5. PDEx (FI Trading System) sends trade data to PDEx (eDVP System).
6. PDEx (eDVP System) sends settlement details to sell side and buy side.
7. Sell side and buy side authorize settlement instruction for DVP.
9. PDEx (eDVP System) sends earmarked instruction to Philippine Depository & Trust Corp (PDTC).
10. PDEx (eDVP System) sends cash settlement instruction to BSP.
11. PDTC holds bonds before cash settlement. PDTC acts as sub-registry.
12. BSP executes cash settlement.
13. BSP sends cash settlement report to sell side, buy side, and PDEx(eDVP System).
14. PDEx (eDVP System) sends settlement instruction to PDTC.
15. PDTC executes bond settlement.
16. PDTC sends settlement status to PDEx (eDVP System).
17. PDEx (eDVP System) sends bond settlement status to sell side and buy side.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
PH Corporate Bond Transaction Flow for Domestic Trades

Exchange Market

1. In OTC market, sell side and buy side negotiate before they input the trade data to PDEx. This process is omitted in the Exchange Market.
2. Sell side and buy side trade via PDEx(FI Trading System).
3. PDEx(FI Trading System) collates orders from sell side and buy side.
4. PDEx(FI Trading System) sends matching results to sell side and buy side.
5. PDEx(FI Trading System) sends trade data to PDEx(eDVP System).
6. PDEx(eDVP System) sends settlement details to sell side and buy side.
7. Sell side and buy side authorize settlement instruction for DVP.
9. PDEx(eDVP System) sends earmarked instruction to Philippine Depository & Trust Corp(PDTC).
10. PDEx(eDVP System) sends cash settlement instruction to BSP.
11. PDTC holds bonds before cash settlement. PDTC acts as sub-registry.
12. BSP executes cash settlement.
13. BSP sends cash settlement report to sell side, buy side, and PDEx(eDVP System).
14. PDEx(eDVP System) sends settlement instruction to PDTC.
15. PDTC executes bond settlement.
16. PDTC sends settlement status to PDEx(eDVP System).
17. PDEx(eDVP System) sends bond settlement status to sell side and buy side.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
PH Interest Payment Flow of Government Bond

1. Payment Instruction

2. Interest Payment through RDDA (net)

3. Interest Payment

4. Interest Payment Notice (only PDTC and custodians)

5. Tax Payment (book-entry through journal entry Voucher: by government revenue internal accounting system)

BSP: Banko Sentral ng Pilipinas
RDDA: Regular Demand Deposit Account
CSA: Cash Settlement Account
BTr: Bureau of the Treasury
BTr: RoSS
ROSS Participants (QI, Retail, PDTC and Custodian)
ROSS participant/Settlement Bank
ROSS participants’ CSA/Bond Holders’ a/c
Tax Office

BTr: Bureau of the Treasury
BSP: Banko Sentral ng Pilipinas
RDDA: Regular Demand Deposit Account
CSA: Cash Settlement Account
PH Interest Payment Flow of Government Bond

Process of Interest Payment

1. BTr instructs BSP to make interest payment
2. BSP executes interest payment from BTr’s RDDA (Regular Demand Deposit Account) to ROSS Participants’ or their settlement banks’ RDDA, deducting tax if applicable.
3. Settlement Banks credit CSA (Cash Settlement Account) of ROSS participants which do not have RDDA in BSP. ROSS participants which hold RDDA in BSP credit interest payment to bond holders’ accounts.
4. Custodians (which are ROSS participants with RDDA in BSP) notify bond holders of interest payment
5. BTs Pays WHT to the tax office. (Custodians have two types of account Taxable and Tax-exempt) 100% for Taxable and 0% for Tax-exempt.

Note: Followings are some note on tax in Philippines.
ROSS
0% or 20%
Except multi currency RTB ($or Euro)
0%(TEI: Tax exempt entity), 10%(FCDU: foreign currency deductible unit), and 20%(QII).

Tax tracking system PDEEx system attached to ROSS
BTr is now enhancing Tax Tracking System to cover all coupon bearing domestic government bond (planning to start operation by 2013 January)

QI; qualified investors) : Banks, insurance companies, trust companies, investment companies, social securities institutions (pension funds), international banks, foreign and local government,
PH Redemption Payment Flow of Government Bond

**Bond Issuer Side**
- BTr
  - Same Entity

**CSD**
- BTr: RoSS
  - 2. Redemption

**Bond Holder Side**
- Bond Holder
- RosS Participants (QI, Retail, PDTC and Custodian)
  - 4. Interest Payment Notice (only PDTC and custodians)

**1. Payment Instruction**
- BSP
  - BTr’s
  -Same Entity

**2. Redemption and last Interest Payment through RDDA (net)**
- Ross participants/Settlement Bank
  - Ross Participants’ CSA/Bond Holders’ a/c

**3. Red. & Int. Payment**
- Ross Participant/Settlement Bank
  - Ross Participants’ CSA/Bond Holders’ a/c

**4. Tax Payment (book-entry through journal entry Voucher: by government revenue internal accounting system)**
- Tax Office

BTr: Bureau of the Treasury  BSP: Banko Sentral ng Philippin  RDDA: Regular Demand Deposit Account
CSA: Cash Settlement Account
PH Redemption Payment Flow of Government Bond

Process of Redemption Payment

1. BTr instructs BSP to make redemption payment.
2. BSP executes redemption payment with last Interest payment to ROSS participants’ RDDA (Regular Demand Deposit Account) or Settlement Banks’ RDDA if ROSS participants do not have RDDA. Regarding last interest payment, tax is deducted, if applicable. Bond is deleted from BTr ROSS system (Redemption).
3. Settlement Banks credit CSA (Cash Settlement Account) of ROSS participants which do not have RDDA in BSP. ROSS participants which hold RDDA in BSP credit principal and interest (net) payment to bond holders’ accounts.
4. Custodians (which are ROSS participants with RDDA in BSP) notify bond holders of redemption with interest payment.
5. BTs Pays WHT of last interest to the tax office. (Custodians have two types of account Taxable and Tax-exempt) 100% for Taxable and 0% for Tax-exempt.

Note: Last interest is paid with redemption.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
PH Interest Payment Flow of Corporate Bond

Bond Issuer Side

1. Advise of Interest Payment and Withholding Tax Amount

2. Payment Instruction

Issuer's Bank

issuer's Bank Account

3. Cash Transfer

Issuer's Bank

Bond Issuer

CSD

PDTC

5. Payment Instruction

BSP

PDTC's RDDA

6. Interest Payment (net)

PDTC participant/Settlement Bank

7. Interest Payment

PDTC participant/Settlement Bank

PDTC Participants' CSA/Bond Holders' a/c

PDTC Participants (QI, Retail, and Custodian)

Bond Holder

8. Interest Payment Notice (to be confirmed)

Information Flow

Cash Flow

Tax Office

PDTC : Philippine Depository & Trust Corp.
1. Philippine Depository & Trust Corp (PDTC) advises issuer of interest payment and withholding tax amount based on list of bond holders.

2. Bond issuer instructs its paying Agent (Issuer’s Bank) to make interest payment.

3. Issuer’s bank transfers cash for interest payment to PDTC’s account, deducting tax if applicable.

4. Issuer pays tax to tax office if applicable.

5. PDTC instructs BSP to pay interests from PDTC RDDA to PDTC participants RDDA or Settlement Bank RDDA if PDTC participant does not open RDDA in BSP.

6. BSP executes interest payment. BSP’s RTGS PhilPaSS (Philippine Payments & Settlement System) is used.

7. Custodians (which are PDTC participants holding RDDA in BSP) credit bond holder’s accounts with interest.

8. Custodians notify bond holders of interest payment
PH Interest Payment Flow of Corporate Bond

1. Advise of Interest Payment and Withholding Tax Amount
2. Payment Instruction
3. Cash Transfer
4. Tax Payment
5. Payment Instruction
6. Interest Payment (net)
7. Interest Payment
8. Interest Payment Notice
9. Interest Payment Notice

Bond Issuer Side
- Bond Issuer
  - Issuer's Bank
    - Issuer's Account
      - 4. Tax Payment
      - 3. Cash Transfer

CSD
- PDTC
  - PDTC's RDDA
    - Issuer's Bank
      - Issuer's Account
        - 4. Tax Payment
        - 3. Cash Transfer

Bond Holder Side
- Bond Holder
  - PDTC Participants (QI, Retail, and Custodian)
  - Same Entity

PDTC Participants' CSA/Bond Holders' a/c
- PDTC participant/Settlement Bank
  - Cash Flow Information
  - Information Flow

PDTC : Philippine Depository & Trust Corp.
1. Philippine Depository & Trust Corp (PDTC), in its capacity as a registry, advises issuer of interest payment and withholding tax amount based on list of bond holders.
2. Bond issuer instructs its paying Agent (Issuer’s Bank) to make interest payment.
3. Issuer’s bank transfers cash for interest payment to PDTC’s account, deducting tax if applicable.
4. Issuer pays tax to tax office if applicable.
5. PDTC (or the Issuer’s paying bank) instructs BSP to pay interests from PDTC’s (or Issuer paying bank’s) account to bondholder’s RDDA or the RDDA of the Settlement Banks designated by bondholders.
6. BSP executes interest payment and, where applicable, the designated Settlement Bank credits the accounts of the bondholders upon checking that its BSP RDDA has been credited.
7. Custodians holding RDDA in BSP receives interest payment into their RDDA accounts and make corresponding credits to accounts of their client-bond holders.
8. PDTC, as registry, notifies all registered bondholders of the interest payment, including custodians.
9. Custodians also notify bond holders of interest payment.
PH Redemption Payment Flow of Corporate Bond

**Bond Issuer Side**

Bond Issuer

1. Advise of Redemption Payment and Withholding Tax Amount

2. Payment Instruction

Issuer’s Bank

3. Cash Transfer

Same Entity

Issuer’s Account

4. Tax Payment

PDTC’s Account

- BSP

6. Redemption & Interest Payment (net)

PDTC participant/Settlement Bank

7. Red. & inter. Payment

PDTC Participants’ CSA/ Bond Holders’ a/c

- Same Entity

**CSD**

PDTC

6. Delete Bond Registration

5. Payment Instruction

**Bond Holder Side**

Bond Holder

8. Redemption Payment Notice (to be confirmed)

PDTC Participants (QI, Retail, and Custodian)

- Same Entity

**Cash Flow**

**Information Flow**

PDTC : Philippine Depository & Trust Corp.

PhilPaSS : Philippine Payments & Settlement System
PH Redemption Payment Flow of Corporate Bond

Process of Redemption Payment

1. Philippine Depository & Trust Corp (PDTC) advises issuer of redemption payment and last interest payment. Regarding last interest payment, information on withholding tax amount based on list of bond holders is notified.

2. Bond issuer instructs its Paying Agency (Issuer’s Bank) to make redemption and last interest payment.

3. Issuer’s bank transfers cash for redemption payment and net amount of last interest payment to PDTC’s account. Regarding last interest payment, WHT is deducted before payment if applicable.

4. Issuer pays tax to tax office if applicable.

5. PDTC instructs BSP to transfer cash from its RDDA to PDTC participants RDDA or Settlement Bank’s RDDA if PDTC participant does not have RDDA in BSP via Philippine Payments & Settlement System (PhilPaSS). At the same time, PDTC makes bond redemption.

6. Custodians (PDTC participants which hold RDDA in BSP) credit bond holder’s accounts with last interest and principal.

7. Custodians notify bond holders of redemption payment.
PH Redemption Payment Flow of Corporate Bond

1. Advise of Redemption Payment and Withholding Tax Amount

2. Payment Instruction

3. Cash Transfer

4. Tax Payment

5. Payment Instruction

6. Delete Bond Registration

7. Redemption & Interest Payment (net)

8. Interest Payment Notice

9. Redemption Payment Notice

PDTC : Philippine Depository & Trust Corp.

PhilPaSS : Philippine Payments & Settlement System
Process of Redemption Payment

1. Philippine Depository & Trust Corp (PDTC), in its capacity as a registry, advises issuer of redemption payment and last interest payment. Regarding last interest payment, information on withholding tax amount based on list of bond holders is notified.

2. Bond issuer instructs its Paying Agency (Issuer’s Bank) to make redemption and last interest payment.

3. Issuer’s bank transfers cash for redemption payment and net amount of last interest payment to PDTC’s account. Regarding last interest payment, WHT is deducted before payment if applicable.

4. Issuer pays tax to tax office if applicable.

5. PDTC (or the Issuer’s paying bank) instructs BSP to pay redemption and last interest from PDTC’s (or Issuer paying bank’s) account to bondholder’s RDDA or the RDDA of the Settlement Banks designated by bondholders.

6. BSP executes redemption/interest payment and, where applicable, the designated Settlement Bank credits the accounts of the bondholders upon checking that its BSP RDDA has been credited.

7. Custodians holding RDDA in BSP receives redemption/interest payment into their RDDA accounts and make corresponding credits to accounts of their client-bond holders.

8. PDTC, as registry, notifies all registered bondholders of the redemption/interest payment, including custodians.

9. Custodians also notify its client-bond holders of redemption/interest payment.

10. PDTC system marks the bond as matured.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
PH OTC Bond Transaction Flow for Foreign Investors OTC Market / DVP

1. Trade Order
2. Trade Order
3. Agreement on Trade & Confirmation
4. Trade Reporting/Capture
5. Trade Confirmation
6. Trade Confirmation
7. Settlement Instruction
8. Settlement Instruction
9. Pre-matching
10. Capture/UL of Transaction Details
11. Retrieval of Matching Status
12. Pre-Matching Status
13. FX Instruction
14. FX Confirmation
15. Funding of BSP Account
16. Confirmation of Debit/Credit
17. Settlement Confirmation
18. Settlement Confirmation
19. Funding of Account
20. Settlement Confirm
21. Issue of BSRD
22. Securities Statement
23. Cash Statement
24. Cash Statement

Foreign Institutional Investor (direct or Investment Manager)

International Broker

Domestic Broker or Bank

Counter-party

PDEEX (FI)

Global Custodian

Domestic Custodian

As Cash Correspondent

As FX Bank

As Cash Correspondent

BTr

ROSS

BSP

PhilPaSS

Cash Settlement

Clearing

Matching & Settlement

Cross-Border

Trading
1. Foreign Institutional Investor places order with International Broker
2. International Broker places order with Domestic Broker/GSED
3. Domestic Broker or Dealer trades OTC with Counterparty
4. Domestic Broker or Dealer captures trade in PDEx system, for price discovery, within 10 mins
5. International Broker receives trade confirmation
6. Foreign Institutional Investor receives trade confirmation
7. Foreign Institutional Investor instructs Global Custodian, on securities settlement and FX/cash funding details
8. Global Custodian instructs Domestic Custodian on securities settlement details
9. Domestic Custodian conducts phone pre-matching with Counterparty or custodian of counterparty
10. Domestic Custodian enters settlement data into RoSS (typically via 3rd Party front-end)
11. Domestic Custodian retrieves transaction matching status
12. Domestic Custodian reports matching status update to Global Custodian
13. Global Custodian sends FX instruction for projected funding requirements
14. Domestic Custodian sends FX confirmation
15. Domestic Custodian funds BSP accounts, via PhilPASS (RTGS) if necessary
16. Upon transfer of cash (after prompting from RoSS), PhilPaSS sends cash settlement confirmation to Domestic Custodian
17. Upon confirmation of cash settlement, RoSS effects bond settlement, sends confirmation to Domestic Custodian
18. Domestic Custodian sends settlement confirmation to Global Custodian
19. Global Custodian funds account with Domestic Custodian in PHP, or into FCY nostro (before end of day)
20. Global Custodian sends settlement confirmation to Foreign Institutional Investor
21. Domestic Custodian issues BSRD (Bangko Sentral Registration Document), for capital repatriate and/or remittance of interest payment
22. Domestic Custodian sends securities statement to Global Custodian
23. Domestic Custodian sends debit/credit confirmations, in form of cash statement, to Global Custodian
24. Global Custodian sends cash statement to Foreign Institutional Investor
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
SGX – Singapore Exchange Ltd.,
CDP – Central Depository (Pte.) Ltd,
MAS - Monetary Authority of Singapore
DCSS – Debt Securities Clearing and Settlement System
MEPS+ – MAS Electronic Payment System
### SG Corporate Bond Market Infrastructure Diagram

<table>
<thead>
<tr>
<th>Trading</th>
<th>Interdealer Market (OTC)</th>
<th>SGX-ST (exchange)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade matching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CCP</td>
<td></td>
<td>CDP (Clearing House)</td>
</tr>
<tr>
<td>Settlement match.</td>
<td>CDP (Settlement) - PSMS (DCSS)</td>
<td>CDP (Settlement) – PSMS (DVPT/FOPT)</td>
</tr>
<tr>
<td>Bond settlement</td>
<td></td>
<td>CDP (Depository)</td>
</tr>
<tr>
<td>Cash settlement</td>
<td></td>
<td>MAS (MEPS+ RTGS)</td>
</tr>
</tbody>
</table>

**Abbreviations:**
- SGX – Singapore Exchange Ltd.
- CDP – Central Depository (Pte.) Ltd.
- MAS - Monetary Authority of Singapore
- DCSS – Debt Securities Clearing and Settlement System
- MEPS+ – MAS Electronic Payment System
1. Bond Market Infrastructure Diagram

2. **Bond Transaction Flow for Domestic Trades (Government Bond)**

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
SG Government Bond Transaction Flow for Domestic Trades

1. Trade
2. Trade Matching
3. Delivery Instruction
4. Receipt Instruction
5. Matching
6. Notice of Settlement Matching Status
7. DVP Order
8. Holding Bonds
9. Settlement Data for DVP
10. Cash Settlement
11. Settlement Report (Cash)
12. Bond Settlement
13. Settlement Report (Bond)
13. Settlement Report (Bond)
11. Settlement Report (Cash)
11. Settlement Report (Cash)

MAS

(MEPS Plus SGS)

(MEPS Plus RTGS)
SG Government Bond Transaction Flow for Domestic Trades

OTC Market

1. Singapore government securities (SGS) is traded on over-the-counter basis.
2. Trades are matched among sell side and buy side.
3. Sell side sends the agreed trade instruction to MEPS+ SGS.
4. Buy side sends the agreed trade instruction to MEPS+ SGS.
5. MEPS+ SGS performs bond matching.
6. MEPS+ SGS sends the notice of bond matching status to sell side and buy side.
7. MEPS + SGS creates the DVP order.
8. When sell side’s SGS account has sufficient SGS, the SGS are earmarked for transfer to buy side.
9. Settlement data for DVP is sent to MEPS+ RTGS.
10. When funds are available, amount is debited from buy side’s RTGS account and credited to sell side’s RTGS account.
11. MEPS+ RTGS simultaneously MEPS+ SGS to transfer securities and reports cash settlement status to both sides of trade.
12. MEPS +SGS transfer bonds to buy side’s account.
13. MEPS +SGS reports settlement status to both sell side and buy side.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
SG Corporate Bond Transaction Flow for Domestic Trades

1. OTC Trade

2. Settlement Instruction

3. Match Settlement Instruction

4. Earmark Bonds

5. Status

6. Money Settlement Instruction

7. Cash Settlement

8. Cash Settlement Confirmation

9. Transfer Bond

10. Settlement Confirmation

10. Settlement Confirmation

CDP

PSMS (Pre-settlement Matching System)

Delivering Depository Agent

Selling Client

Buying Client

Receiving Depository Agent

Settlement Bank

5. Status

6. Money Settlement Instruction

7. Cash Settlement

8. Settlement Report (Money)

9. Transfer Bond

3. Match Settlement Instruction

4. Earmark Bonds

8. Settlement Report (Money)

6. Money Settlement Instruction

Settlement Bank

MAS

(MEPS Plus)
OTC Market

1. Sell side and buy side trade corporate bond over-the counter.
2. Both sell side and buy side send settlement instructions into PSMS (Pre-Settlement Matching System).
3. PSMS matches settlement instructions and sends settlement instruction to Debt Securities Clearing and Settlement System (DCSS).
4. CDP (DCSS) holds bonds on book entry system. CDP (Depository) earmarks the bonds in sell side’s account for delivery.
5. PSMS sends settlement instructions status back to depository agents of both sides of trade.
7. Cash settlement takes place in RTGS system in MEPS.
8. MAS send confirmation of cash settlement to CDP (DCSS) and both sides of settlement banks.
9. Bond transfer effected in DCSS.
10. DCSS sends bond settlement confirmation to depository agents of both sides of trade.

Assumption: This applies to SGD-denominated bonds which are safe-keep in CDP (Depository). Payment takes place in central bank SGD accounts (known as MEPS) on RTGS mode.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
1. Monetary Authority of Singapore (MAS) as payment agent requests Ministry of Finance (MOF) for interest payment.
2. MOF approves request of interest payment from MAS.
3. Custodians send tax status data to MAS.
4. MAS notifies custodians of payment details.
5. MAS as payment agent executes interest payment from MOF’s account to custodians’ account via MEPS+, deducting tax if applicable.
6. MAS notifies custodians of payment details again.
7. MAS as paying agent pays income tax to tax office if applicable.
8. Custodians credit bond holders’ accounts with interest paid by MOF.
9. Custodians notify bond holders of interest payment.
10. Custodians pay local tax to tax office if applicable.

Note: No difference between non-residents and domestic investors except account is tagged as “non-resident” for withholding tax purposes.

For SGS coupon payments within MEPS+SGS, MEPS+SGS automatically calculates the coupon payment at the beginning of the ex-date according to the coupon rate and coupon frequency of the securities and the members’ holdings. The ex-date period, coupon payment date, coupon payment rate and coupon payment frequency are specified for each SGS issue in MEPS+-SGS at the start and MEPS+-SGS will derive the rest of the coupon payment schedule accordingly.

On the coupon payment date, MEPS+SGS automatically pays the calculated coupon amounts to the holder (as at ex-date) of the SGS by debiting the MAS' MEPS+-RTGS account and crediting the custodian's MEPS+-RTGS account. For all outstanding (as at ex-date) interbank repo transactions in MEPS+-SGS, the reverse interest amounts will also be automatically debited from the original receiving member’s account (i.e., the receiving member for the opening leg of the transaction) and credited to the original delivering member’s account.
SG Redemption Payment Flow of Government Bond

**Bond Issuer Side**
- MOF
  - 1. Payment Request
  - 2. Fund Request

**MAS as Paying Agent**
- Same Entity (No confirmation necessary)

**Mas (MEPS+)**
- MOF’s Account
  - 5. Redemption Payment
  - 8. Tax Payment (Income Tax)

**CSD**
- MAS as CSD
  - 7. Redemption
  - 4. Notification of Payment Details
  - 6. Notification of Payment Details

**Bond Holder Side**
- Bond Holder
  - 10. Redemption Payment Notice

**Custodian**
- Same Entity
  - 9. Redemption Payment
  - 11. Tax Payment (Local Tax)

**Custodian’s Account**

**Tax Office**

**Cash Flow**

**Information Flow**
SG Redemption Payment Flow of Government Bond

Process of Redemption Payment

1. MAS (Monetary Authority of Singapore) as payment agent requests Ministry of Finance (MOF) for redemption payment.

2. MOF approves request of redemption payment from MAS.

3. Custodians send tax status data to MAS.

4. MAS notifies custodians of payment details.

5. MAS as payment agent executes redemption payment from MOF’s account to custodians’ account via MEPS+, deducting tax if applicable.

6. MAS notifies custodians of payment details again.

7. MAS as CSD makes bond redemption.

8. MAS as a paying agent pays income tax to tax office if applicable.

9. Custodians credit bond-holders’ bank accounts with last interest and principal paid by MAS, deducting local tax if applicable.

10. Custodians notify bond holders of interest payment.

11. Custodians pay local tax to tax office if applicable.

Note: Redemption always involves last interest payment.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
Process of Interest Payment

1. Paying agent sends payment request of interest to bond issuer.
2. Bond issuer sends fund request to the paying agent.
3. Paying agent transfers cash from issuer’s account to own account.
4. Custodians of bond holders send tax status to CDP.
5. CDP sends payment request to paying agent.
6. Paying agent instructs MAS to money transfer requested from CDP.
7. MAS executes interest payment from paying agent’s account to CDP’s account via MEPS+, deducting income tax if applicable.
8. CDP instructs MAS to payment request.
9. MAS executes interest payment from CDP’s account to custodians account via MEPS+.
10. Custodians credit bond holders’ accounts with interest payments, deducting local tax if applicable.
11. Custodians notify bond holders of interest payment.
12. Paying agent pays income tax to tax office.
13. Custodians pay local tax to tax office.

Note: No difference between non-residents and domestic investors except that account is tagged as “non-resident” for withholding tax purposes.

Assumption: CDP is the central depository for the corporate bond (Issuer CSD). Bond holders manage their bonds through custodians.
1. Paying agent sends payment request of redemption to the bond issuer.
2. Bond issuer sends fund request to the paying agent.
3. Paying agent transfers cash from issuer’s account to own account.
4. Custodians of bond holders send tax status to CDP.
5. CDP sends payment request to paying agent.
6. Paying agent instructs MAS to money transfer requested from CDP.
7. MAS executes redemption payment from paying agent’s account to CDP’s account via MEPS+, deducting income tax if applicable.
8. CDP instructs MAS to payment request.
9. MAS executes redemption payment from CDP’s account to custodians account via MEPS+.
10. CDP makes bond redemption.
11. Paying agent deletes bond registration.
13. Custodians credit bond holders’ accounts with last interest and principle, deducting local tax if applicable.
15. Paying agent pays income tax to tax office.
16. Custodians pay local tax to tax office.

Note: No difference between non-residents and domestic investors except that account is tagged as “non-resident” for withholding tax purposes.

Assumption: CDP is the central depository for the corporate bond (Issuer CSD). Bond holders manage their bonds through custodians.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
Fig. SG03 OTC Bond Transaction Flow for Foreign Investors OTC Market / DVP

1. Trade Order
2. Trade Order
3. Agreement on Trade & Confirmation
4. Trade Confirmation
5. Trade Confirmation
6. Settlement Instruction
7. Settlement Instruction
8. Pre-matching
9. Transaction Status Update
10. Capture of Settlement Details
11. Settlement Status Update
12. Funding of MAS Account
13. Confirmation of Debit/Credit
14. Settlement Confirmation
15. Settlement Confirmation
16. Funding of Trades
17. Settlement Confirm
18. Securities Statement
19. Cash Statement
20. Cash Statement
1. Foreign Institutional Investor places order with International Broker
2. International Broker places order with Domestic Broker or Bank
3. Domestic Broker/Bank trades OTC with Counterparty (via phone, Bloomberg)
4. Domestic Broker/Bank sends trade confirmation to International Broker
5. Foreign Institutional Investor receives trade confirmation
6. Foreign Institutional Investor instructs Global Custodian on securities settlement details and funding details
7. Global Custodian instructs Domestic Custodian on securities settlement details
8. Domestic Custodian and Counterparty pre-match settlement details, via phone
9. Domestic Custodian provides result of pre-matching to Global Custodian
10. Domestic Custodian transmits settlement details to MEPS+ SGS.
11. Domestic Custodian monitors settlement status updates (online)
12. Domestic Custodian funds MAS account via MEPS+ RTGS.
13. Upon transfer of cash, debit/credit confirmation from MEPS+ RTGS.
14. Upon transfer of securities, settlement confirmation from MAS, via MEPS+
15. Upon transfer of securities, settlement confirmation from MEPS+ SGS.
16. Global Custodian funds SGD account with Domestic Custodian, or FCY nostro (before end of day)
17. Global Custodian sends settlement confirmation to Foreign Institutional Investor
18. Domestic Custodian sends securities statement to Global Custodian
19. Domestic Custodian sends debit/credit confirmations as cash statement to Global Custodian
20. Global Custodian sends cash statement to Foreign Institutional Investor
Thailand (TH)

1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
BEX – The Bond Electronic Exchange (The Stock Exchange of Thailand)
SET – Stock Exchange of Thailand
BOT – Bank of Thailand
PTI – Post Trade Integration (The Stock Exchange of Thailand)
TSD – Thailand Securities Depository (The Stock Exchange of Thailand)
TCH – Thailand Clearing House (The Stock Exchange of Thailand)
BAHTNET – The Bank of Thailand Automated High-value Transfer Network
MNS – Multilateral Netting System
TH Corporate Bond Market Infrastructure Diagram

Trading
- Trade match.

OTC Market
- TCH (PTI)
- SET (BEX)

CCP

Settlement match.
- Bond settlement

TSD (PTI)

Cash settlement
- BOT (BAHTNET)

BEX – The Bond Electronic Exchange (The Stock Exchange of Thailand)
SET – Stock Exchange of Thailand
BOT – Bank of Thailand
PTI – Post Trade Integration (The Stock Exchange of Thailand)
TSD – Thailand Securities Depository (The Stock Exchange of Thailand)
TCH – Thailand Clearing House (The Stock Exchange of Thailand)
BAHTNET – The Bank of Thailand Automated High-value Transfer Network
MNS – Multilateral Netting System
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
TH Government Bond Transaction Flow for Domestic Trades

1. Trade
2. Trade Data
3. Matching
4. Matching Results
5. Holding Bonds
6. Settlement Details
7. Cash Settlement
8. Payment Response Message
9. Bonds Settlement
10. Settlement Report (Bond)

Sell Side

Sell Side’s Bank

Buy Side

Buy Side’s Bank

TCH
(PTI)

TSD

BOT (BAHTNET)
OTC Market

1. Sell side and buy side trade via OTC market.
2. Sell side and buy side send transaction details to TCH via PTI System.
3. TCH matches trade data from sell side and buy side.
4. TCH sends matching results to sell side and buy side via PTI System.
5. TCH sends settlement details to TSD. Then, TSD checks availability and blocks securities in members’ account.
6. TSD sends cash settlement details to BOT.
7. BOT executes cash settlement.
8. BOT sends cash settlement confirmation to sell side, buy side and TSD.
9. TSD releases blocked securities and executes securities delivery.
10. TSD sends settlement reports to sell side, buy side and TCH via PTI System.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
TH Corporate Bond Transaction Flow for Domestic Trades

1. Trade
2. Trade Data
3. Matching
4. Matching Results
5. Holding Bonds
6. Settlement Details
7. Cash Settlement
8. Payment Response Message
9. Bonds Settlement
10. Settlement Report (Bond)

Sell Side

TCH (PTI)

Buy Side

TSD

Sell Side’s Bank

Buy Side’s Bank

8. Confirmation of Credit (Cash)
7. Cash Settlement
6. Settlement Details
5. Holding Bonds
4. Matching Results
3. Matching
2. Trade Data
1. Trade

8. Confirmation of Debit (Cash)
9. Bonds Settlement
10. Settlement Report (Bond)
OTC Market

1. Sell side and buy side trade via OTC market.
2. Sell side and buy side send transaction details to TCH via PTI System.
3. TCH matches trade data from sell side and buy side.
4. TCH sends matching results to sell side and buy side via PTI System.
5. TCH sends settlement details to TSD. Then, TSD checks availability and blocks securities in members’ account.
6. TSD sends cash settlement details to BOT.
7. BOT executes cash settlement.
8. BOT sends cash settlement confirmation to sell side, buy side and TSD.
9. TSD releases blocked securities and executes securities delivery.
10. TSD sends settlement reports to sell side, buy side and TCH via PTI System.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
TH Interest Payment Flow of Government Bond

1. Book Closure

2. Request for Interest Payment

3. Payment Instruction

1. Book Closure

2. Request for Interest Payment

3. Payment Instruction

4. Interest Payment

5. Interest Payment

6. Interest Payment Notice

7. Submit Withholding Tax

Cash Flow

Information Flow
1. Bank of Thailand (BOT) as a registrar and paying agent closes the record book for interest payment by gathering bond holders’ names from the TSD in case of scripless securities. The book closure period varies between 10-30 days. (In case of scrip securities, no need to gather information from TSD, because BOT owns bond holder’s names.)

2. BOT submits letter requesting for interest payment to MOF 45-60 days prior to payment date.

3. On the payment date, MOF instructs BOT to make interest payment within 10.00 a.m.

4. BOT executes interest payment from MOF’s account to account management institutions’ account via BAHTNET on the payment date, deducting tax if applicable.

5. Account management institutions credit bondholders’ accounts with interest paid by MOF.

6. Account management institutions notify bond holders of interest payment.

7. BOT submits withholding tax to the Revenue Department (on a monthly basis).

<In Case of Retail Bond Holder>

• Prior to interest payment from BOT (No.4), BOT sends data and report of bond holders’ names, bank account numbers to which interest will be sent, and interest amount to banks where retail bond holders have accounts with. This is done in 3 working days prior to the payment date to prepare for payment through in-house direct credit system of each bank.

• Instead of process No.4, BOT transfers fund to banks for crediting to retail bond holders’ accounts on the payment date.
1. Bank of Thailand (BOT) as a registrar and paying agent closes the record book for principal payment by gathering bond holders’ names from the TSD. The book closure period is 1 working day for short-term securities, and 10-30 days for long-term securities. (In case of scrip securities, no need to gather information from TSD, because BOT owns bond holder’s names.)

2. BOT sends principal redemption forms to inform the bond holders about redemption and return bond certificates.

3. Bond holders return bond certificates to BOT.

4. BOT submits letter requesting for principal payment to MOF 45-60 days prior to payment date.

5. On the payment date, MOF instructs BOT to make redemption payment within 10.00 a.m.

6. BOT executes redemption payment from MOF’s account to account management institutions’ account via BAHTNET on the payment date, deducting tax if applicable.

7. TSD makes bond redemption.

8. BOT deletes bond registration.

9. Account management institutions credit bondholders’ accounts with last interest and principal.

10. Account management institutions notify bond holders of redemption payment.

11. BOT submits withholding tax to the Revenue Department (on a monthly basis).
<In Case of Retail Bond Holder>

• Prior to redemption payment from BOT(No.6), BOT sends data and report of bond holders’ names, bank account numbers to which interest will be sent, and interest amount to banks where retail bond holders have accounts with. This is done in 3 working days prior to the payment date to prepare for payment through in-house direct credit system of each bank.

• Instead of process No.4, BOT transfers fund to banks for crediting to retail bond holders’ accounts on the payment date.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. **Interest & Redemption Payment Flow (Corporate Bond)**
6. Bond Transaction Flow for Foreign Investors
TH Interest Payment Flow of Corporate Bond

1. Book Closure
2. Request for Interest Payment
3. Payment Instruction
4. Interest Payment (Issuer’s Account → PA’s Account)
5. Interest Payment (PA’s Account → Account Management Institution’s Account)
6. Interest Payment (Account Management Institution’s Account → Bond Holder’s Account)
7. Interest Payment Notice
8. Submit Withholding Tax

CSD

Account Management Institution

Paying Agent

Bond Issuer

Bond Holder

TSD

Same Entity

Cash Flow

Information Flow

Tax Office
Process of Interest Payment

1. Bank of Thailand (BOT) as a registrar and paying agent closes the record book for interest payment by gathering bond holders’ names from the TSD in case of scripless securities. The book closure period varies between 10-30 days. (In case of scrip securities, no need to gather information from TSD, because BOT owns bond holder’s names.)

2. Paying agent submits letter requesting for interest payment to issuer 45-60 days prior to payment date.

3. On the payment date, bond issuer instructs BOT to make interest payment within 10.00 a.m.

4. Paying agent transfers cash from issuer’s account to own account.

5. BOT executes interest payment from issuer’s account to account management institutions’ account via BAHTNET on the payment date, deducting tax if applicable.

6. Account management institutions credit bondholders’ accounts with interest paid by issuer.

7. Account management institutions notify bond holders of interest payment.

8. BOT submits withholding tax to the Revenue Department (on a monthly basis).

<In Case of Retail Bond Holder>

- Prior to interest payment from BOT (No.4), BOT sends data and report of bond holders’ names, bank account numbers to which interest will be sent, and interest amount to banks where retail bond holders have accounts with. This is done in 3 working days prior to the payment date to prepare for payment through in-house direct credit system of each bank.

- Instead of process No.4, BOT transfers fund to banks for crediting to retail bond holders’ accounts on the payment date.
TH Redemption Payment Flow of Corporate Bond

1. Book Closure
2. Information about Redemption
3. Return Bond Certificate
8. Redemption
9. Delete registration

Cash Flow

Information Flow

Bond Issuer Side
- Bond Issuer
- Paying Agent
  4. Request for Principal Payment
  5. Payment Instruction

CSD
- TSD
  8. Redemption

Bond Holder Side
- Bond Holder
- Account Management Institution
  11. Interest Payment Notice

Paying Agent
- Issuer’s Account
  6. Interest Payment
- PA’s Account
  7. Interest Payment
- Account Management Institution’s Account
  10. Interest Payment
- Bond Holder’s Account
  12. Submit Withholding Tax

same Entity

Tax Office
TH Redemption Payment Flow of Government Bond

Process of Redemption Payment  1/2

1. Bank of Thailand (BOT) as a registrar and paying agent closes the record book for principal payment by gathering bond holders’ names from the TSD. The book closure period is 1 working day for short-term securities, and 10-30 days for long-term securities. (In case of scrip securities, no need to gather information from TSD, because BOT owns bond holder’s names.)

2. Paying agent sends principal redemption forms to inform bond holders about redemption and return bond certificates.

3. Bond holders return bond certificates to BOT.

4. BOT submits letter requesting for principal payment to bond issuer 45-60 days prior to payment date.

5. On the payment date, bond issuer instructs BOT to make redemption payment. within 10.00 a.m.

6. Paying agent transfers cash from issuer’s account to own account.

7. BOT executes redemption payment from issuer’s account to account management institutions’ account via BAHTNET on the payment date, deducting tax if applicable.

8. TSD makes bond redemption. (to be confirmed)

9. BOT deletes bond registration. (to be confirmed)

10. Account management institutions credit bondholders’ accounts with last interest and principal.

11. Account management institutions notify bond holders of redemption payment.

12. BOT submits withholding tax to the Revenue Department (on a monthly basis). (to be confirmed)
<In Case of Retail Bond Holder>

- Prior to redemption payment from BOT(No.6), BOT sends data and report of bond holders’ names, bank account numbers to which interest will be sent, and interest amount to banks where retail bond holders have accounts with. This is done in 3 working days prior to the payment date to prepare for payment through in-house direct credit system of each bank.
- Instead of process No.4, BOT transfers fund to banks for crediting to retail bond holders’ accounts on the payment date.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
TH OTC Bond Transaction Flow for Foreign Investors OTC Market / DVP

1 Trade Order

International Broker

Domestic Broker or Bank

3 Agreement on Trade & Confirmation

4 Trade Reporting

5 Trade Confirmation

6 Trade Confirmation

2 Trade Order

Bank of Thailand

Thailand BMA

9 Pre-matching

4 Trade Reporting

7 Settlement Instruction

8 a Settlement Instruction

8 b FX/Funding Instruction

10 Pre-Matching Status

11 FX Confirmation

12 Capture of Transaction Details

13 Matching Status

14 Funding Report

15 Request Use of Balance

16 FX Instruction

17 FX Instruction

18 FX Confirmation

19 Funding of BoT Account

20 Confirmation of Debit/Credit

21 Settlement Confirmation

22 Settlement Confirmation

23 Report NRBS Balances

24 Funding of Trades

25 Settlement Confirm

26 Securities Statement

27 Cash Statement

28 Cash Statement

19 Funding of BoT Account

20 Confirmation of Debit/Credit

21 Settlement Confirmation

22 Settlement Confirmation

23 Report NRBS Balances

24 Funding of Trades

25 Settlement Confirm

26 Securities Statement

27 Cash Statement

28 Cash Statement

Global Custodian

As Cash Correspondent

Foreign Institutional Investor (direct or Investment Manager)

Domestic Custodian

As FX Bank

As Cash Correspondent

Domestic Custodian

As FX Bank

As Cash Correspondent

Foreign Institutional Investor (direct or Investment Manager)

Counterparty

Trading

Clearing & Settlement

TSD

PTI

BOT

BahtNet

Cash Settlement

Clearing & Settlement

Trading

Counterparty

Foreign Institutional Investor (direct or Investment Manager)
TH OTC Bond Transaction Flow for Foreign Investors OTC Market / DVP

1. Foreign Institutional Investor places order with International Broker
2. International Broker places order with Domestic Broker/Bank
3. Domestic Broker/Bank trades OTC with Counterparty (via phone or Bloomberg)
4. Domestic Broker/Bank and Counterparty report trade to Thai BMA within 30 minutes of trade (web input or, e.g., via Bloomberg)
5. Domestic Broker/Bank send trade confirmation to International Broker
6. Foreign Institutional Investor receives trade confirmation
7. Foreign Institutional Investor instructs Global Custodian on securities settlement and cash/funding details
8. Global Custodian instructs Domestic Custodian on (a) securities settlement details, (b) FX request or funding details (since 3rd Party FX possible)
9. Domestic Custodian pre-matches with Counterparty, typically via phone
10. Domestic Custodian sends pre-matching results to Global Custodian
11. Domestic Custodian sends FX confirmation to Global Custodian
12. Domestic Custodian captures settlement details in PTI
13. Domestic Custodian retrieves matching results, via TSD terminal
14. Domestic Custodian sends funding report to Global Custodian
15. Global Custodian sends, if so required, request to use THB balance to Foreign Institutional Investor
16. Foreign Institutional Investor sends, if so required, FX instruction (or additional securities purchase trade) to Global Custodian
17. Global Custodian, if so required, sends FX instruction to Domestic Custodian, as FX bank
18. Domestic Custodian, as FX bank, confirms FX deal
19. Domestic Custodian funds clearing account at Bank of Thailand
20. Upon cash settlement/transfer, BAHTNET II sends credit/debit confirmation to Domestic Custodian (as BAHTNET II participant)
21. Upon cash settlement confirmation, TCH/TSD transfers securities and sends settlement confirmation to Domestic Custodian
22. Domestic Custodian sends settlement confirmation to Global Custodian
23. Domestic Custodian reports clients' NRBS account balances to Bank of Thailand (prior to end of day)
24. Global Custodian funds account with Domestic Custodian directly, or into FCY nostro account (by end of day)
25. Global Custodian sends settlement confirmation to Foreign Institutional Investor
26. Domestic Custodian sends statement of securities to Global Custodian (end of day)
27. Domestic Custodian sends cash credit/debit information in cash statement to Global Custodian (end of day)
28. Global Custodian sends cash credit/debit information to FII in cash statement (end of day)
Viet Nam (VN)

1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bond Market Infrastructure Diagram</td>
</tr>
<tr>
<td>2</td>
<td>Bond Transaction Flow for Domestic Trades (Government Bond)</td>
</tr>
<tr>
<td>3</td>
<td>Bond Transaction Flow for Domestic Trades (Corporate Bond)</td>
</tr>
<tr>
<td>4</td>
<td>Interest &amp; Redemption Payment Flow (Government Bond)</td>
</tr>
<tr>
<td>5</td>
<td>Interest &amp; Redemption Payment Flow (Corporate Bond)</td>
</tr>
<tr>
<td>6</td>
<td>Bond Transaction Flow for Foreign Investors</td>
</tr>
<tr>
<td>Trading</td>
<td>CCP</td>
</tr>
<tr>
<td>---------</td>
<td>-----</td>
</tr>
<tr>
<td>Trade matching</td>
<td>Settlement match.</td>
</tr>
<tr>
<td>Bond settlement</td>
<td>Cash settlement</td>
</tr>
</tbody>
</table>

HNX (Specialized Government Bond Market)

VSD

BIDV

HNX – The Hanoi Stock Exchange
VSD – Vietnam Securities Depository
BIDV – Bank for Investment and Development of Vietnam
VN Corporate Bond Market Infrastructure Diagram

| Trading | | HOSE |
|---------|---------|
| Trade matching | HNX |
| CCP | |
| Settlement match. | VSD |
| Bond settlement | |
| Cash settlement | BIDV |

HNX – The Hanoi Stock Exchange
HOSE – Ho Chi Minh Stock Exchange
VSD – Vietnam Securities Depository
BIDV – Bank for Investment and Development of Vietnam
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
Government Bond Market

1. Trade

2. Trade Instruction

3. Matching

4. Matching Result

5. Transaction Result

6. Making summary notice of transaction results

7. Notice of transaction results

8. Making summary report on securities/cash multilateral netting and settlement

9. Notice of cash/securities multilateral netting and settlement

10. Notice of transaction results confirmation

11. Transfer of funds

12. Summary notice of cash multilateral netting and payment

13. Checking cash balance on member’s deposit account for clearing and settlement (C&S)

14. Balance report of member’s deposit account for C&S

15. Transferring the money from Member’s deposit account for C&S to Member’s cash account for C&S

16. Delivering securities from Member’s accounts pending for settlement into securities accounts for C&S

17. Transferring money from Member’s cash account for C&S to VSD’s deposit account for C&S

18. Delivering securities from Member’s account for C&S to VSD’s account for C&S

19. Transferring money from VSD’s deposit account for C&S to Member’s cash account for C&S

20. Delivering securities from VSD’s account for C&S to Member’s account for C&S

21. Allocating amount from Member’s cash account for C&S to Member’s deposit account for C&S

22. Allocating securities from Member’s account for C&S to those account for trading

23. Summary report cash multilateral netting and payment

24. Making and filing the summary report on securities multiple netting and settlement

260
2. Traded data are input into the exchange system of HNX.
3. After inputting, the exchange system automatically matches trade instructions.
4. Trading result is confirmed to sell side and buy side.
5. The exchange sends transaction result to VSD. VSD checks bond holding information of depository member’s clients.
6-7. VSD makes reports including: Summary notice of transaction results; Notice of accounts lacking securities for settlement and information; and Notice of updating investor’s information. After receiving the report, members check their transactions.
8-9. From 14:30 to 15:00, VSD makes and sends to each member “Notice of cash multilateral netting and payment” and “Notice of securities multilateral netting and settlement”.
10. By 8:30 of the settlement day (T+1), members send “Notice of transaction result confirmation” and error correction proposal (if any) to VSD.
11. Members transfer cash into their cash deposit account for clearing and settlement at the settlement bank based on VSD’s notices.
12. VSD sends the “Summary notice of cash multilateral netting and payment” to the settlement bank (BIDV).
13. From 11:00 to 11:30, BIDV checks cash balance on member’s deposit account for clearing and settlement (to ensure settlement for securities transactions in line with VSD’s notice).

14. BIDV sends the balance report of member’s deposit account for clearing and settlement to VSD.

15. From 14:00 to 15:00, based on the payment documents, BIDV automatically transfers the payable amount from member’s deposit account for clearing and settlement (brokerage account and/or proprietary account) to their cash account for clearing and settlement.

16. Based on the payment documents, VSD automatically delivers securities from member’s securities accounts pending for settlement (brokerage account and/or proprietary account) into member’s securities accounts for clearing and settlement opened at VSD.

17. BIDV transfers money (net account payable) from member’s cash account for clearing and settlement to VSD’s cash account for clearing and settlement.

18. VSD delivers securities (total net volume receivable) from selling member’s securities account for clearing and settlement to VSD’s securities accounts for clearing and settlement. VSD and BIDV check and compare the balance in VSD’s securities account for clearing and settlement and VSD’s deposit account for clearing and settlement with the payment documents.
19. Based on the payment documents, BIDV automatically transfers money (total net value receivable) from VSD’s deposit account for clearing and settlement to selling member’s cash accounts for clearing and settlement.

20. VSD delivers securities (total net volume receivable) from VSD’s securities account for clearing and settlement to buying member’s securities accounts for clearing and settlement.

21. BIDV automatically allocates respective amount from member’s cash accounts for clearing and settlement to member’s deposit account for clearing and settlement (brokerage account or/and proprietary account) at the BIDV.

22. VSD allocates the respective securities from member’s securities accounts for clearing and settlement to member’s securities accounts for trading (brokerage accounts and/or proprietary accounts).

23. BIDV makes and sends “Summary report on cash multilateral netting and payment” to VSD.

24. VSD makes and files the summary report on securities multiple netting and settlement.
Note: This Business Process Flow simplifies the flowchart of the previous page.
VN Government Bond Transaction Flow for Domestic Trades

Exchange Market (for listed bonds)

1. Sell side and buy side trade at The Hanoi Stock Exchange (HNX) or Ho Chi Minh Stock Exchange (HOSE).
2. HNX/HOSE matches trade.
3. HNX/HOSE sends matching result to sell side and buy side.
4. HNX/HOSE sends trade data to VSD.
5. VSD holds bonds from sell side’s account.
6. VSD notifies transaction result to sell side and buy side.
7. Sell side and buy side confirm transaction results (and trading amendment documents if any).
8. VSD notifies sell side and buy side of cash/bond multilateral netting and payment or trade by trade payment of securities/cash with USD bonds.
9. Buy side transfers cash to BIDV.
10. VSD notifies the summary of cash multilateral netting and payment or trade by trade payment of cash with USD bonds
11. BIDV executes cash settlement.
12. BIDV notifies of the list of members who are in default of cash if any.
13. VSD executes bond settlement.
1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond)

3. **Bond Transaction Flow for Domestic Trades (Corporate Bond)**

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

6. Bond Transaction Flow for Foreign Investors
VN Corporate Bond Transaction Flow for Domestic Trades

Exchange Market (for listed bonds)

1. Sell side and buy side trade at The Hanoi Stock Exchange (HNX) or Ho Chi Minh Stock Exchange (HOSE).
2. HNX/HOSE matches trade.
3. HNX/HOSE sends matching result to sell side and buy side.
4. HNX/HOSE sends trade data to VSD.
5. VSD holds bonds from sell side’s account.
6. VSD notifies transaction result to sell side and buy side.
7. Sell side and buy side confirm transaction results (and trading amendment documents if any).
8. VSD notifies sell side and buy side of cash/bond multilateral netting and payment or trade by trade payment of securities/cash with USD bonds.
9. VSD notifies the summary of cash multilateral netting and payment or trade by trade payment of cash with USD bonds.
10. Buy side transfers cash to BIDV.
11. BIDV executes cash settlement.
12. BIDV notifies of the list of members who are in default of cash if any.
13. VSD executes bond settlement.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. **Interest & Redemption Payment Flow (Government Bond)**
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
VN Interest Payment Flow of Government Bond OTC Market

1. Notification of Record Date

2. Notification of Bondholders-list

3. Confirmation of Bondholders-list

4. Payment Instruction & Bondholders-list

5. Confirmation of Payment Details

6. Instruction of Cash Transfer

7. Cash Transfer

8. Payment Instruction

9. Interest Payment

10. Interest Payment

11. Interest Payment Notice

Bond Issuer Side

State Treasury
Ministry of Finance

VSD as Paying Agent

CSD

VSD as CSD

Same Entity

Bond Holder Side

Bond Holder

VSD’s Member

Same Entity

Settlement Bank

MOF’s Account

BIDV

VSD’s Account

VSD Member’s Account

Custodian

Bond Holder’s Account

Tax Office
1. Vietnam Securities Depository (VSD) as a paying agent notifies the record date to State Treasury - Ministry of Finance (issuers), VSD’s members and other related organizations.

2. VSD makes and sends it’s members bondholders-list receiving bond interest payment.

3. Members send VSD the confirmation of the bondholders list.

4. VSD sends issuers payment request and comprehensive bondholders list.

5. VSD sends it’s members confirmation of interest distribution to investors named in the bondholders list.

6. Issuers instruct settlement bank to transfer cash for interest from issuers’ account to VSD’s account.

7. Settlement bank transfers cash as requested.

8. VSD instructs BIDV to transfer cash for interest from VSD’s account to related VSD members’ account.

9. BIDV transfers cash as requested.

10. VSD members credit bondholders’ account with interest.

11. VSD members notify bond holders of interest payment.
VN Redemption Payment Flow of Government Bond OTC Market

1. Notification of Record Date
2. Notification of Bondholders-list
5. Confirmation of Payment Details

Bond Issuer Side

State Treasury
Ministry of Finance

VSD as Paying Agent

1. Notification of Record Date
4. Payment Instruction & Bondholders-list
6. Instruction of Cash Transfer

CSD

VSD as CSD

10. Redemption

3. Confirmation of Bondholders-list
8. Payment Instruction

Bond Holder Side

Bond Holder

VSD’s Member

12. Interest Payment Notice

Same Entity

Settlement Bank

MOF’s Account

7. Cash Transfer

BIDV

VSD’s Account

9. Interest Payment

VSD Member’s Account

11. Interest Payment

Custodian

VSD’s Account

634. MOF’s Account

VSD Member’s Account

Bond Holder’s Account

Tax Office

Cash Flow

Information Flow
**Process of Redemption Payment**

1. Vietnam Securities Depository (VSD) as a paying agent notifies the record date to State Treasury - Ministry of Finance (issuers), VSD’s members and other related organizations.
2. VSD makes and sends its members bondholders-list receiving bond redemption payment.
3. Members send VSD confirmation of bondholders list.
4. VSD sends issuers payment request and comprehensive bondholders list.
5. VSD sends its members confirmation of interest and principal distribution to investors named in bondholders list.
6. Issuers instruct settlement bank to transfer cash for redemption from issuers’ account to VSD’s account.
7. Settlement bank transfers cash as requested.
8. VSD instructs BIDV to transfer cash for redemption from VSD’s account to related VSD members’ account.
9. BIDV transfers cash as requested.
10. VSD makes bond redemption.
11. VSD members credit bond holders’ accounts with last interest and principal, deducting income tax if applicable.
12. VSD members notify bond holders of redemption payment.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
VN Interest Payment Flow of Corporate Bond
OTC Market

1. Notification of Corporate Action
2. Notification of Record Date
3. Record Date Notice
4. Notification of Bondholders-list
5. Confirmation of Bondholders-list
6. Bondholders-list
7. Confirmation of Bondholders-list
8. Confirmation of Payment Details
9. Instruction of Cash Transfer
10. Cash Transfer
11. Payment Instruction
12. Interest Payment
13. Interest Payment
14. Interest Payment Notice
15. Tax Payment
1. Issuers sends the adequate and legal dossier notifying corporate action to Vietnam Securities Depository (VSD).
2. VSD as a paying agent notifies record date to VSD’s members and other related organizations.
3. VSD’s members notify record date to bond holders.
4. VSD makes and sends it’s members bondholders-list receiving bond interest payment.
5. Members send VSD confirmation of bondholders-list.
6. VSD sends issuers comprehensive bondholders list.
7. Bond issuer sends confirmation of bondholders-list.
8. VSD sends it’s members confirmation of interest distribution to investors named in bondholders list.
9. Issuers instruct settlement bank to transfer cash for interest from issuers’ account to VSD’s account in BIDV.
10. Settlement bank transfers cash as requested.
11. VSD instructs BIDV to transfer cash for interest from VSD’s account to related members’ account.
12. BIDV transfers cash as requested.
13. Members credit bondholders’ account with interest.
14. Members notify bond holders of interest payment.
15. Bond issuers pay income tax to tax office if applicable.
VN Redemption Payment Flow of Corporate Bond OTC Market

**Bond Issuer Side**

1. Notification of Corporate Action
2. Notification of Record Date
3. Record Date Notice
4. Confirmation of Bondholders-list
5. Confirmation of Bondholders-list
6. Bondholders-list
7. Confirmation of Bondholders-list
8. Confirmation of Payment Details
9. Instruction of Cash Transfer
10. Cash Transfer
11. Payment Instruction

**VSD as Paying Agent**

12. Interest Payment
13. Redemption
14. Interest Payment
15. Interest Payment Notice

**Bond Holder Side**

16. Tax Payment

**Settlement Bank**

- Issuer’s Account
- VSD’s Account
- VSD Member’s Account

**CSD**

- VSD’s Account
- VSD Member’s Account

**BIDV**

- VSD’s Account
- VSD Member’s Account

**VSD’s Member**

- Same Entity

**Tax Office**
1. Issuers sends the adequate and legal dossier notifying corporate action to Vietnam Securities Depository (VSD).
2. VSD as a paying agent notifies record date to VSD’s members and other related organizations.
3. VSD’s members notifies record date to bond holders.
4. VSD makes and sends it’s members bondholders-list receiving bond interest payment.
5. Members send VSD confirmation of bondholders-list.
6. VSD sends issuers comprehensive bondholders list.
7. Bond issuer sends confirmation of bondholders-list.
8. VSD sends it’s members confirmation of interest distribution to investors named in bondholders list.
9. Issuers instruct settlement bank to transfer cash for interest from issuers’ account to VSD’s account in BIDV.
10. Settlement bank transfers cash as requested.
11. VSD instructs BIDV to transfer cash for interest from VSD’s account to related members’ account.
12. BIDV transfers cash as requested.
13. VSD as CSD makes bond redemption.
14. Members credit bondholders’ account with interest.
15. Members notify bond holders of interest payment.
16. Issuers pay income tax to tax office if applicable.
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)
6. Bond Transaction Flow for Foreign Investors
VN OTC Bond Transaction Flow for Foreign Investors

1. FX/Funding Instruction
2. Trade Confirmation
3. Trade Order
4. Trade Confirmation
5. Agreement on Trade & Signing of Contract
6. Trade Confirmation
7. Trade Confirmation
8. Trade Confirmation
9. Settlement Instruction
10. Settlement Instruction
11. Relay of Trade Details
12. Balance Enquiry
13. Capture Trade Details
14. Settlement Report
15. Correction of Transaction Details
16. Matching/Status Update
17. FX Confirmation
18. FX Confirmation
19. Funding of BIDV Account
20. Retrieval of Settlement Confirm
21. Retrieval of Debit/Credit Info
22. Settlement Confirmation
23. Funding of Trade
24. Settlement Confirm
25. Securities Statement
26. Cash Statement
27. Cash Statement

Counterparty

HNX (eBond)

Trading

Transaction result

Clearing & Settlement

BIDV

Cash Settlement

VSD

Global Custodian

International Broker

Domestic Bank

Domestic Custodian

Foreign Institutional Investor (direct or Investment Manager)

Domestic

Broker

As Cash Correspondent

As FX Bank

As Cash Correspondent

Cross-Border

Local

Local
VN OTC Bond Transaction Flow for Foreign Investors

1. Foreign Institutional Investor sends FX/funding instruction to Global Custodian (for planned bond trades)
2. Global Custodian sends FX/funding instruction to Domestic Custodian (to ensure timely availability of VND)
3. Foreign Institutional Investor places order with International Broker
4. International Broker places order, typically with Domestic Bank
5. Domestic Broker/Bank trade OTC with Counterparty (via phone), both parties sign trade agreement (contract)
6. Domestic Broker/Bank sends trade confirmation to International Broker, and to Domestic Custodian
7. International Broker sends trade confirmation to Foreign Institutional Investor
8. Domestic Bank sends trade confirmation to Domestic Custodian
9. Foreign Institutional Investor sends securities settlement instruction to Global Custodian
10. Global Custodian instructs Domestic Custodian on securities settlement details
11. Domestic Bank relays trade details to Domestic Broker (as HNX member) for trade capture

T-1

12. Domestic Broker checks available funds/bonds with Domestic Custodian
13. Domestic Broker captures trade details on HNX, typically via eBond front-end system
14. VSD provides Settlement Report to Domestic Custodian (at end of ‘Trade Date’)
15. Only in the event of a discrepancy, does Domestic Custodian need to contact VSD (hence dashed arrow)
16. Domestic Custodian provides settlement/matching status to Global Custodian
17. Domestic Custodian sends FX confirmation to Global Custodian
18. Global Custodian sends FX confirmation to Investor
19. Domestic Custodian effects funding of BIDV account
20. After settlement deadline, Domestic Custodian retrieves settlement confirmation from VSD (hardcopy, or online)

Trade Date

21. After settlement deadline, Domestic Custodian retrieves cash debit/credit confirmations from BIDV (hardcopy)
22. Domestic Custodian sends settlement confirmation to Global Custodian
23. Global Custodian effects funding of account with Domestic Custodian, or into FCY nostro account (before end of day)
24. Global Custodian sends settlement confirmation to Foreign Institutional Investor
25. Domestic Custodian sends securities statement to Global Custodian
26. Domestic Custodian sends debit/credit information in cash statement to Global Custodian
27. Global Custodian sends cash statement to Foreign Institutional Investor

Settle Date / T+1
This document is prepared as Appendix of “Findings and Policy Implications for the ASEA+3 Bond markets” submitted to the ASEAN+3 Finance Ministers and Central Governors Meeting held in May 2013 in Delhi from ASEAN+3 Bond Market Forum Sub-forum 2 (ABMF SF2) by ADB Consultant for ABMF SF2 and his team in NTT DATA Corporation in consultation with ADB Secretariat Team based on the information from the ABMF Members, Experts, and Observers during ABMF meetings and country visits organized by ADB Secretariat Team. The views and interpretations in this document are those of the authors and do not necessarily reflect the views and policies of the Asian Development Bank (ADB) or its Board of Governors or the governments they represent, or any other organizations they belong to. Either of ADB or NTT DATA Corporation does not guarantee the accuracy of the data included in this document and accepts no responsibility for any consequence of their use.

By making any designation of or reference to a particular territory or geographic area, or by using the term “country” in this document, ADB does not intend to make any judgments as to the legal or other status of any territory or area.

ADB encourages printing or copying information exclusively for personal and noncommercial use with proper acknowledgment of ADB. Users are restricted from reselling, redistributing, or creating derivative works for commercial purposes without the express, written consent of ADB.
ISO 20022 adoption

ABMF 12th meeting status

ISO 20022: Connecting the dots

ISO 20022 When?

ISO 20022 Who?

ISO 20022 How?

ISO 20022 Why?
ISO 20022: Where is it used?

ISO 20022 Adoption – Payments MI & initiatives
From discussion to implementation
ISO 20022 in the corporate-to-bank space

More than 60 banks receiving payment initiation messages (over SWIFT)

Around 70 members (corporates and banks) defining common global implementation guidelines

Who (and what) is driving ISO 20022 adoption?

- New initiatives
  - Market infrastructures
  - Global harmonisation & regulation (eg SEPA in Europe)
  - Automation in specific markets (eg the ‘funds’ market)

- New players
  - Corporates, fund managers

- New technology
  - XML, SOA, web services

From early adopters to ‘followers’
When to adopt ISO 20022?

Drivers:

- Harmonization (driven by regulation or innovation)
- Renewal of legacy systems
- Further automation required
- Creation of new services
- Interoperability with other systems/players

Why adopt ISO 20022

An international and neutral recipe to build a common financial language

- Meaning of business processes and information > dictionary
- Set of messages to execute end-to-end transactions > repository
- Right syntax: XML > universally used, tools available to facilitate implementation

Collaboration with external parties

Internal integration

Standards interoperability
Why adopt ISO 20022 – a global standard to meet local needs

ISO 20022 allows for more flexibility than most proprietary old protocols to cater for local/specific needs

- Implementation guidelines: formal way to express market practice
- Extensions
- Right tools and services available to manage flexibility

How to adopt ISO 20022
Managing diverging local implementations

A risk that can be mitigated by a coordinated approach:

- Collaboration and best practice sharing in working groups (e.g., HVP implementation guidelines, NMPGs, etc)
- Services to help communities migrate and implement (roadmap/creation of guidelines/mapping/etc)
- Tools (MyStandards) to facilitate sharing and harmonization
Standards Capacity Building in ASEAN

- Our commitment to an integrated ASEAN through supporting a common standard and platform to enhance the competitiveness of ASEAN players globally.

- For the banking and capital markets, we have developed two Capacity Building Programmes for regulatory authorities as well as their communities.

For more information, please contact ABMF Secretariat or SWIFT

Questions?

- [www.iso20022.org](http://www.iso20022.org)
- [www.swift.com/mystandard](http://www.swift.com/mystandard)

- @standardsforum
- #ISO20022

- ISO20022 – A Financial Messaging Standard
- [alexandre.kech@swift.com](mailto:alexandre.kech@swift.com)
- [mireia.guisado-parra@swift.com](mailto:mireia.guisado-parra@swift.com)
Leverage ABMF Activities

Public-Private Round Table between regulators/policy makers and bond market participants to exchange views on the Asian bond market.

- To commence a public-private roundtable between regulators/policy makers and market participants to exchange views on Asian bond market. The market participants are ABMF members and guests from public sector.

- To hold the public-private roundtable regularly.

- One or two topic will be discussed in each ABMF (start from next ABMF in Tokyo)
Work Plan and Other Issues

ADB Secretariat Team
Seung Jae LEE, Advisor (OREI), ADB

12th ABMF Meeting
Jakarta, Indonesia, 23-24 APR 2013

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

Outline

1. Knowledge support for BCLMV
2. Work plan after Jakarta meeting
Knowledge support for BCLMV

- **Approach**: Phased supports based on actual demands
  - **Phase 1**: Kick-off seminar to address fundamental issues and challenges in developing bond market (5-6 Dec 2012)
  - **Phase 2**: Market visits on demand basis (Q2 2013~)
    - Provide tailor-made knowledge support considering specific demands from each economy
    - Collect market information both on SF1 and SF2
  - **Phase 3**: Follow up support for market development (optional, Q3 2013~) (ex: standalone project/program)

Knowledge support for BCLMV

- **Phase 2 support for Cambodia – topics**
  1) **Auction system for government bonds**: strategy, legal and regulatory framework, procedures, methods, management of Primary Dealers and other related issues
  2) **Developing interbank money market**: strategies and model for central bank cash management, legal, regulatory, institutional framework for developing the interbank money market including central bank securities issuance and developing the secondary markets
  3) **Bond transaction flows**: difference between corporate bonds and government bonds settlement flows, bond transaction infrastructure, study on typical settlement flows of ASEAN+3 (in respect of ABMF SF2 activities)
Knowledge support for BCLMV

- **Phase 2 support for Cambodia – program**
  - **29 May** (Morning) ABMF market visits
  - **29 May** (Afternoon) ABMF market visits
  - **30 May** (Morning) Bond transaction flows
  - **30 May** (Afternoon) Bond transaction flows
  - **31 May** (Morning) Auction system
  - **31 May** (Afternoon) Inter-bank money market

* Welcome participation of ABMF members

Work Plan after Jakarta Meeting

- **12th ABMF meeting** (23-24 Apr 2013, Jakarta)
  - ✓ Finalized interim reports of Phase 2
- **AFMCGM+3** (2 May 2013, New Delhi)
  - ✓ Recommendations are expected to be approved
- **13th ABMF meeting** (25-26 July, Tokyo)
  - ✓ Preparing full report of Phase 2
  - ✓ Discussion on focus of Phase 3 (2014-2015)

* SRO meeting
* CSD meeting (TBD)
* Regulators meeting (TBD)
Work Plan after Jakarta Meeting

14th ABMF meeting (late Oct/early Nov 2013, Seoul)
- Continue discussing Phase 2 full reports
- Follow up on updating Phase 1 reports
- Agree on key areas and focus of Phase 3 activities
  * SRO meeting / Regulators meeting (TBD)

ASEAN+3 Deputies meeting (Nov 2013/ TBD)
- Progress reporting of Phase 2
- Endorsement on Phase 3 activities

By the end of 2013
- Finalize Phase 2 full report (by the end of 2013)
- 1st update of Phase 1 reports (by the end of 2013)
  * Conclusion on AMBIF implementation among regulators

2014
- Start Phase 3 ABMF activities
  - Quarterly ABMF meetings – venue and dates TBD
  - ABMF structure / membership to be revised
- Continue to provide support to regulators for implementation of AMBIF
- Explore pilot issuance under AMBIF
Thank You

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

For further information
Dr. Seung Jae Lee, Advisor: sjlee@adb.org
Mr. Shinji Kawai, Senior Financial Sector Specialist: skawai@adb.org