Part 3
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People’s Republic of China (PRC)

Bond Market Infrastructures
and Bond Transaction Flow
Figure 1. PRC Bond Market Infrastructure Diagram

CCDC = China Central Depository and Clearing Corporation; CFETS and NIFC = China Foreign Exchange Trade System and National Interbank Funding Center; CNAPS = China National Automatic Payment System; CSDCC = China Securities Depository and Clearing Corporation; SHCH = Shanghai Clearing House; SSE = Shanghai Stock Exchange; SZSE = Shenzhen Stock Exchange; Note: Commercial Bank Counter Market is not shown here. Source: ABMF SF2.
Figure 2. PRC Bond Transaction Flow for Domestic Trades OTC Market/DVP

Source: ABMF SF2.
**Note: Description of PRC Bond Transaction Flow for Domestic Trades OTC Market/DVP**

**OTC Market**

1. Seller and buyer trade bond via China Foreign Exchange Trade System (CFETS). CFETS provides several trading methods including bilateral negotiation and Click-and-Deal. In China OTC bond market, most of transactions are conducted through the electronic trading platform provided by CFETS, and a small part of the transactions are conducted through telephone or some other ways.

2. CFETS sends trade data to China Central Depository and Clearing (CCDC) or Shanghai Clearing House (SHCH).

   About 5% of trade data are entered to CCDC directly from seller and buyer (refer to 4. Settlement instruction).

3. CCDC or SHCH sends trade data to seller and buyer for verification.

4. When seller and buyer received trade data from CCDC or SHCH, seller and buyer verify the data. If the data are correct, seller and buyer send affirmative message to CCDC. The messages are regarded as “settlement instructions” to CCDC or SHCH. About 5% of trades are directly entered to CCDC after traded in China OTC Market. In this case, one party (either seller or buyer) 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 does not 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 the seller and buyer 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 the seller and buyer.

8. CCDC or SHCH blocks seller’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 buyer’s current account to seller’s current account by High Value Payment System (HVPS) of CNAPS.

11. PBOC sends fund transfer notice to the seller and buyer.

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 the seller and buyer.

Source: ABMF SF2.
Figure 3. PRC Bond Transaction Flow for Domestic Trades Exchange Market/DVP

Source: ABMF SF2.
Note: Description of PRC Bond Transaction Flow for Domestic Trades Exchange Market/DVP

**Exchange Market**

1. The seller and buyer trade via Shanghai Stock Exchange (SSE) or Shenzhen Stock Exchange (SZSE).
2. SSE/SZSE collates orders from the seller and buyer.
3. SSE/SZSE sends notice of trade to the seller and buyer.
4. SSE/SZSE sends trade data to China Central Depository and Clearing Corporation (CSDCC).
5. Clearing function in CSDCC executes clearing process.
6. Clearing function in CSDCC sends clearing result to the seller and buyer.
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 the seller and buyer.
9. The seller and buyer send affirmation of settlement.
10. CSDCC sends settlement data to payment banks.
11. Payment banks perform cash settlement.
12. Payment banks send settlement reports to CSDCC, seller and buyer.
13. CSD function in CSDCC executes bond settlement.
14. CSDCC sends settlement report (bonds and cash) to the seller and buyer.

Source: ABMF SF2.
5. Trade Confirmation

Settlement Agent (Custodian)

6. Advice of Settlement Details

CCDC

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

1. Trade Order

2. Trade Execution

3. Trade Confirmation

4. Trade Confirmation

Optional

Trading

Cleaning

Matchmaking

Clearing

Matching and Settlement

Settlement

Cash

Foreign Central Banks; RMB Settlement Banks (HKG, Macau); Overseas Participants Banks

As Cash Correspondent

As own banker

Source: ABMF SF2.
Note: Description of PRC Bond Transaction Flow for Foreign Investors OTC Market/RMB Banks

**Trade Date**
1. Eligible Institution/RMB Bank places order with Settlement Agent (Authorized Broker).
2. Settlement Agent, executes trade on CFETS, then captures trade details in CFETS.
3. Settlement Agent receives trade confirmation from via CFETS.
4. Settlement Agent sends trade confirmation to Eligible Institution/RMB Bank.
5. Settlement Agent sends trade confirmation to Settlement Agent (custodian).
6. CCDC sends advice of settlement details sent directly from CFETS to Settlement Agent.

**Settlement Date (T + 1)**
7. Eligible Institution/RMB Bank instructs Settlement Agent on settlement details.
8. Eligible Institution/RMB Bank remits RMB amount to Settlement Agent (custodian).
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.

Source: ABMF SF2.
Figure 5. PRC Bond Transaction Flow for Foreign Investors Exchange Market/QFII

Source: ABMF SF2.
**Note: Description of PRC Bond Transaction Flow for Foreign Investors Exchange Market/QFII**

**Trade Date**
1. QFII Custodian sends 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.

**Settlement Date**
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).

Source: ABMF SF2.
Hong Kong, China (HKG)

Bond Market Infrastructures and Bond Transaction Flow
Figure 1. HKG Bond Market Infrastructure Diagram

Note: There is no CCP for bonds in Hong Kong, China.
CHATS = Clearing House Automated Transfer System; CMU = Central Moneymarkets Unit; HKMA = Hong Kong Monetary Authority
Source: ABMF SF2.
Figure 2. HKG Bond Transaction Flow for Domestic Trades OTC Market/DVP

Source: ABMF SF2.
Note: Description of HKG Bond Transaction Flow for Domestic Trades OTC Market/DVP

OTC Market
1. Seller and buyer trade over the counter.
2. The seller and buyer send instructions to Central Moneymarkets Unit (CMU) via CMT, SWIFT, Fax, AFT or by hand. When they use system, either seller or buyer enters trade data to be forwarded to the counterpart (buyer or seller). The counterpart can utilize the trade information as a message instruction to be sent to the CMU. 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 seller and buyer.
5. CMU holds the bond.
6. CMU sends settlement data to CHATS.
7. For real time DVP settlement involving non-bank debt securities buyer, the buyer instructs its bank to pay by sending payment instruction to CHATS.
8. CHATS executes cash settlement.
9. CHATS sends cash settlement report to CMU.
10. CMU executes bond settlement.
11. CHATS sends cash settlement report to the buyer and seller respectively, while CMU sends securities settlement confirmation to the seller and buyer.

Source: ABMF SF2.
Figure 3. HKG Bond Transaction Flow for Foreign Investors OTC Market/DVP

1. Trade Order
2. Trade Confirmation
3. Agreement on Trade and Confirmation
4. Trade Confirmation
5. Trade Confirmation
6. Settlement Instruction
7. Settlement Confirmation
8. Capture/UL of Transaction Details
9. Matching Confirmation
10. Settlement Confirmation
11. Funding Advice
12. Funding of HKMA Account
13. Confirmation of Debit/Credit
14. Settlement Confirmation
15. Settlement Confirmation
16. Settlement Confirmation
17. Funding of Trades
18. Securities Statement
19. Cash Statement
20. Cash Statement

Source: ABMF SP2.
Note: Description of HKG Bond Transaction Flow for Foreign Investors OTC Market/DVP

Trade Date
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.

T + 1
7. Global Custodian instructs Domestic Custodian on securities settlement.

Settlement Date
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).

Source: ABMF SF2.
Indonesia (INO)

Bond Market Infrastructures
and Bond Transaction Flow
Figure 1. INO Bond Market Infrastructure Diagram

Trading

Trade matching

OTC Market (telephone)

IDX (FITTS)

IDX (CTP)

CCP

Settlement matching

Bond settlement

BI (BI-SSSS)

KPEI (e-BOCS)

Cash settlement

BI (BI-RTGS)

KSEI (C-BEST)

Payment Banks

BI = Bank Indonesia; BI-SSSS = Bank Indonesia Scripless Securities Settlement System; C-BEST = Central Depository and Book Entry Settlement; CTP = Centralized Trading Platform; e-BOCS = Electronic Bond Clearing System; FITS = Fixed-Income Trading System; IDX = Indonesian Stock Exchange; KPEI = Indonesia Clearing and Guarantee Corporation; KSEI = Indonesian Central Securities Depository

Source: ABMF SF2.
Figure 2. INO Bond Transaction Flow for Domestic Trades OTC Market/DVP

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 (BI-RTGS)
12. Cash Settlement Statement
13. Irrevocable Debit/Credit
14. Bond Settlement
15. Settlement Statement

Buyer/Buyer's Sub registry

Seller/Seller's Sub registry

Source: ABMF SP2.
Note: Description of INO Bond Transaction Flow for Domestic Trades OTC Market/DVP

**OTC Market**
1. The seller and buyer trade government bonds over-the-counter. Most of trades are done by telephones.
2. Both seller and buyer 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 gains tax (CGT) and interest (withholding) tax need to be calculated. Pre-settlement matching is performed via telephone or swift.
3. The seller or buyer 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. The seller and buyer receive report reference code from IDX.
6. The seller and buyer 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 seller and buyer.
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 buyer’s cash account and credited to the seller’s cash account.
12. BI-RTGS sends the cash settlement statements to the seller and buyer.
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 seller and buyer.

Source: ABMF SF2.
Figure 3. INO Bond Transaction Flow for Foreign Trades OTC Market/DVP

Source: ABMF SF2.
**Note: Description of INO Bond Transaction Flow for Foreign Trades OTC Market/DVP**

**Trade Date**
1. Foreign Institutional Investor places order with International Broker.
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 for price discovery (within 30 minutes of trade).
5. Domestic Broker/Bank sends trade confirmation to International Broker.
6. Foreign Institutional Investor receives trade confirmation.

**T + 1**
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 minutes of receipt of instruction), and obtains CTP number.
10. Domestic Custodian/Sub-Registry pre-matches with Counterparty (via phone or email), capital gains tax (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.

**Settlement Date**
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.

Source: ABMF SF2.
Japan (JPN)

Bond Market Infrastructures and Bond Transaction Flow
Figure 1. JPN Bond Market Infrastructure Diagram

Notes: 1) Current settlement cycle is T+3. In April 2012, settlement cycle will be T+2 (JGB). 2) Non fixed income bonds such as convertible bonds are not included here.
BOJ = Bank of Japan; JASDEC = Japan Securities Depository Center; JGB = Japanese Government Bond; JGBCC = Japanese Government Bond Clearing Corporation; JSCC = Japan Securities Clearing Corporation; OTC = Over the Counter; PSMS = Pre-Settlement Matching System; TSE = Tokyo Stock Exchange
Source: ABMF SF2.
Figure 2. JPN Bond Transaction Flow for Domestic Trades OTC Market (JGB)/DVP through Trade Matching (PSMS)

1. Trade
2. Trade report
3. Trade Matching
   Standing Settlement Instruction
4. Notice Data of Trade Matching Status
5. Settlement Matching
6. JGB Transfer Instruction for DVP
7. Notice of Acceptance of JGB Transfer Instruction for DVP
8-1. DVP Request
8-2. Notice of Acceptance of DVP Request
9-1. DVP Request
9-2. Notice of Acceptance of DVP Request
10. Bond Settlement
11. Notice of DVP Settlement
   10. Cash Settlement
   RTGS
   BOJ (BOJ-NET)
   Securities services
   DVP
   Buyer's agent for securities (Receiver of JGB)
   Buyer's agent for funds (Sender of Funds)

Seller
2. Trade report
4. Notice Data of Trade Matching Status
5. Settlement Matching
6. JGB Transfer Instruction for DVP
7. Notice of Acceptance of JGB Transfer Instruction for DVP
8-2. Notice of Acceptance of DVP Request
9-2. Notice of Acceptance of DVP Request
11. Notice of DVP Settlement (Fund)

Seller's agent for securities (Deliverer of JGB)
7. Notice of Acceptance of JGB Transfer Instruction for DVP
8-1. DVP Request
8-2. Notice of Acceptance of DVP Request
11. Notice of DVP Settlement

Seller's agent for funds (Receiver of Funds)
11. Notice of credit to current account for DVP

Source: ABMF SF2.
Note: Description of JPN Bond Transaction Flow for Domestic Trades OTC Market (JGB)/DVP through Trade Matching (PSMS)

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 matching.
4. PSMS sends the Notice Data of Trade Matching Status to both sides of trade.
5. The buyer or the seller sends DVP instruction to BOJ-NET.
6. BOJ-NET sends the Notice of Acceptance of JGB Transfer Instruction for DVP to the seller (or the buyer).
7–1. The seller enters DVP Request to BOJ-NET.
7–2. The buyer enters DVP Request to BOJ-NET (for cash).
8–1. BOJ-NET sends the Notice of Acceptance of DVP Request to seller and completes settlement.
8–2. BOJ-NET sends the Notice of Acceptance of DVP Request to buyer and completes settlement (for cash).
9. BOJ-NET performs security and cash settlement.
10. When DVP settlement completed, BOJ-NET sends the Notice of credit to current account for DVP to the seller and buyer.

Source: ABMF SF2.
Figure 3. JPN Bond Transaction Flow for Foreign Investors OTC Market (JGB)/DVP

Source: ABMF SF2.
Note: Description of JPN Bond Transaction Flow for Foreign Investors OTC Market (JGB)/DVP

T+2 – Trade Date
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.

Settlement Date
11. Domestic Custodian/Direct Participant sends JGB transfer instruction for DVP and receives Notification of Acceptance.
12. Domestic Custodian/Direct Participant send DVP request to BOJ-NET.
13. Domestic Custodian/Direct Participant as receives 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.

Source: ABMF SF2.
Figure 4. JPN Bond Transaction Flow for Domestic Trades OTC Market (JGB)/DVP (New BOJ-NET) through Trade Matching (PSMS)

1. Trade
2. Trade report
3. Trade Matching
4. Notice Data of Trade Matching Status
5. Settlement Matching
6. JGB Transfer Instruction for DVP
7. Notice of Acceptance of JGB Transfer Instruction for DVP
8a. DVP Request
8b. Notice of Acceptance of DVP Request
9a. DVP Request (for cash)
9b. Notice of Acceptance of DVP Request (for cash)
10. Bond Settlement
11. Notice of DVP Settlement
11. Notice of credit to current account for DVP

Source: ABMF SF2.
Figure 5. JPN Bond Transaction Flow OTC Market (JGB)/DVP (New BOJ-NET) through Trade Matching (PSMS) and JGBCC (1/2)

Source: Bank of Japan and JASDEC (modified by presenter).
Figure 5. JPN Bond Transaction Flow OTC Market (JGB)/DVP (New BOJ-NET) through Trade Matching (PSMS) and JGBCC (2/2)

Source: Bank of Japan (modified by presenter).
Note: Description of JPN Bond Transaction Flow OTC Market (JGB)/DVP (New BOJ-NET) through Trade Matching (PSMS) and JGBCC

1. The seller and buyer trade government bond over-the-counter.
2. Both seller and buyer key in 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/the buyer enters DVP Request to BOJ-NET.
15–2. BOJ-NET sends the Notice of Acceptance of DVP Request to the seller / the buyer and completes settlement.
16. BOJ-NET performs security and cash settlement.
17. When DVP settlement completed, BOJ-NET sends the Notice of DVP settlement to the buyer and JGBCC and BOJ-NET sends the Notice of credit to current account for DVP to the seller and JGBCC.

Source: ABMF SF2.
Figure 6. JPN Bond Transaction Flow OTC Market (Corporate Bonds)/DVP (BOJ-NET) through Trade Matching (PSMS)

Source: ABMF SF2.
Figure 7. JPN Bond Transaction Flow OTC Market (JGB)/DVP other types of Trade Matching (PSMS) (1/2)

Matching Type: Own Account Trade (proper type)

1. Trade

Institutional Investor

3. Trade Report Affirmation

JASDEC (PSMS)

2. Trade report

4. Notice of Trade Report Affirmation Status

Executing Broker

Matching Type: Three-party Center Matching

1. Trade

Investment Manager

2. Investment Instruction

4. Notice of Matching Status

JASDEC (PSMS)

3. Trade Matching

5. Investment Instruction and Trade Report

6. Trade Report Affirmation

Executing Broker

7. Notice of Trade Report Affirming Status

Trust Bank

Source: ABMF SF2.
Figure 7. JPN Bond Transaction Flow OTC Market (JGB)/DVP other types of Trade Matching (PSMS) (2/2)

Matching Type: Through

1. Trade

2. Investment Instruction

3. Investment Instruction

4. Trade Matching

5. Trade Report Affirmation

6. Notice of Trade Report Affirming Status

JASDEC (PSMS)

2. Trade report

3. Trade Report

4. Trade Matching

Investment Manager

Trust Bank

Executing Broker

Source: ABMF SF2.
Republic of Korea (KOR)

Bond Market Infrastructures and Bond Transaction Flow
Figure 1. KOR Bond Market Infrastructure Diagram

Trading
OTC Market
Trade matching

CCP

KRX
(KTS)

Bond settlement

KRX

KSD

BOK (BOK-Wire+)

Settlement matching

Cash settlement

Source: ABMF SF2.
Figure 2. KOR Bond Transaction Flow for Domestic Trades OTC Market/DVP

1. Trade

2. Reporting Trade details

3. Disclosure

4. Trade Data via. KSD SAFE System

5. Matching

6. Matching Status Advice

7. Settlement Instructions for DVP (no needs for typical flow)

8. Holding Bonds

9. Settlement Data for DVP

10. Payment Request

11. Cash Settlement

12. Settlement Report (Cash)

13. Bond Settlement

14. Settlement Report (Bond)

14. Settlement Report (Bond)

FSS (FIMS)

KOFIA (B-TRIS)

KSD (SSS)

BOK (BOK-Wire+)

Source: ABMF SF2.
Note: Description of KOR Bond Transaction Flow for Domestic Trades OTC Market/DVP

1. The seller and buyer 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 the 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 and Information Service (B-TRis).
4. The seller and buyer send trade data to Korea Securities Depository (KSD).
5. KSD collates trade data from the seller and buyer.
6. KSD sends matching status advise to the seller and buyer.
7. The seller and buyer send settlement instructions for DVP to KSD.
8. KSD holds bonds before cash settlement.
9. KSD sends settlement data to Bank of Korea (BOK).
10-1. The BOK sends payment request (cash) to the buyer.
10-2. The buyer sends the payment instruction for DVP to the BOK.
11. BOK executes cash settlement.
12. BOK sends settlement report to the KSD.
13. KSD executes bond settlement.
14. KSD sends settlement report to the seller and buyer.

Source: ABMF SF2.
Figure 3. KOR Bond Transaction Flow for Domestic Trades Exchange Market/DVP

1. Transferring order information
2. Acknowledgement of order
3. Execution/Rejection of order
4. Trade Order
5. Matching
6. Trade Confirmation
7. Taking obligation (novation) (KRX-member)
8. Netting
9. Settlement Detail
10. Settlement Instructions for DVP
11. Holding Bonds
12. Settlement Data for DVP
13. Cash Settlement Through KRX a/c
14. Settlement Report (Cash)
15. Bond Settlement Through KRX a/c
16. Settlement Report (Bond)

Source: ABMF SF2.
Figure 4. KOR Bond Transaction Flow for Foreign Investors OTC Market/DVP

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

Source: ABMF SF2.
Note: Description of KOR Bond Transaction Flow for Foreign Investors OTC Market/DVP

**Trade Date**
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 sends trade details to KSD.
7. Foreign Institutional Investor receives trade confirmation.

**T+1 (SD–1)**
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.

**Settlement Date**
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.

Source: ABMF SF2.
BCS = Bursa Clearing and Settlement System; BMD = Bursa Malaysia Depository; BMS = Bursa Malaysia Securities; BMSC = Bursa Malaysia Securities Clearing; BNM = Bank Negara Malaysia; BTS = Bursa Trade System; CDS = Central Depository System; ETP = Electronic Trading Platform; IFTS = Interbank Funds Transfer System; RENTAS = Real-time Electronic Transfer of Funds and Securities; SSDS = Scripless Securities Depository System

Source: ABMF SF2.
Figure 2. MAL Bond Transaction Flow for Domestic Trades OTC Market/DVP

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 and Cash)

Source: ABMF SF2.
Note: Description of MAL Bond Transaction Flow for Domestic Trades OTC Market/DVP

OTC Market
1. The seller and buyer 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. The seller (or Buyer) input trade data into RENTAS as initiate unconfirmed settlement advice.
4. The Buyer (or Seller) confirms an unconfirmed settlement advice using by Confirmation menu of RENTAS.
5. The seller and buyer access Report menu of RENTAS and confirm that confirmation of local matching is performed.
6. On settlement date, bond and cash are settled on DVP basis.
8. The seller and buyer access Report menu of RENTAS and confirm report of Bond settlement and cash settlement.

Source: ABMF SF2.
Figure 3. MAL Bond Transaction Flow for Foreign Investors OTC Market/DVP

Trading

Counter-party

Cleaning

Matching and Settlement

Cash Settlement

Domestic

Broker or Bank

Global

Custodian

As FX Bank

As Cash Correspondent

International Broker

Domestic Custodian

(Bursa Malaysia)

RENTAS

Counter-party

BNM (My Clear)

RENTAS-IFTS

BNM

As Cash Correspondent

Foreign Institutional Investor (direct or Investment Manager)

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

Source: ABMF SF2.
Note: Description of MAL Bond Transaction Flow for Foreign Investors OTC Market/DVP

Trade Date
1. Foreign Institutional Investor places order with International Broker.
2. International Broker places order with Domestic Broker/Bank.
3. Domestic Broker/Bank and Counterparty agrees 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.

T+1
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.
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).

Settlement Date
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).
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 settlement confirmation to Foreign Institutional Investor.
20. Domestic Custodian/ADI sends statement of securities to Global Custodian (at end of day).
21. Domestic Custodian/ADI sends debit/credit information in cash statement (at end of day).
22. Global Custodian sends debit/credit information in cash statement to FII (at end of day).

Source: ABMF SF2.
Philippines (PHI)

Bond Market Infrastructures
and Bond Transaction Flow
Figure 1. PHI Bond Market Infrastructure Diagram

Trading
- Trade matching

OTC Market
- PDEx (Fixed Income Trading System)

Ex. Market

CCP

Settlement matching
- Bond settlement
- Cash settlement

PDEx (eDVP)
- PDTC

Bureau of the Treasury
- (BTr-RoSS)

Bangko Sentral ng Pilipinas (PhilPaSS)

Settlement Banks

Note: Cash settlement by settlement banks is for government and corporate bonds.
eDVP = Expanded Delivery vs. Payment System; PDEx = Philippine Dealing and Exchange; PDTC = Philippine Depository and Trust Corporation; PhilPaSS = Philippine Payments and Settlement System; RoSS = Registry of Scripless Securities
Source: ABMF SF2.
Figure 2. PHI Bond Transaction Flow for Domestic Trades GSEDs Market/DVP

1. Negotiation (OTC)
2. Trade Order
3. Matching
4. Matching Result
5. Trade Data
6. Settlement Detail
7. Authorization of Settlement Instruction for DVP
8. Settlement Status
9. Bond Settlement
10. Settlement Data
11. Cash Settlement (Cash)
12. Settlement Report (Cash)
13. Bond Settlement
14. Settlement Status
15. Monitor Settlement Status

Source: ABMF SF2.
Note: Description of PHI Bond Transaction Flow for Domestic Trades GSEDs* Market/DVP

GSEDs
1. In OTC market, the seller and buyer negotiate before they input the trade data to PDEX. This process is omitted in the Exchange Market.
2. The seller and buyer trade via PDEX(FI Trading System).
3. PDEX(FI Trading System) matches order or records negotiated deals between buyer and seller.
4. PDEX(FI Trading System) sends matching result to the seller and buyer.
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 seller and buyer.
7. The seller and buyer authorize the settlement instruction for DVP.
8. PDEX(PDEX-RoSS STP Facility) sends settlement data to Bureau of the 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 seller, buyer and BTr-RoSS.
13. BTr-RoSS executes bond settlement.
14. BTr-RoSS sends bond settlement status to PDEX-RoSS STP Facility.
15. The seller and the buyer can monitor settlement status via PDEX-RoSS STP Facility.

*GSED = Government Securities Eligible Dealer
Source: ABMF SF2.
Figure 3. PHI Bond Transaction Flow for Domestic Trades Non-GSEDs Market/DVP

Source: ABMF SF2.
Note: Description of PHI Bond Transaction Flow for Domestic Trades Non-GSEDs* Market/DVP

Non-GSEDs
1. In OTC market, the seller and buyer negotiate before they input the trade data to PDEx. This process is omitted in the Exchange Market.
2. The seller and buyer trade via PDEx (FI Trading System).
3. PDEx (FI Trading System) automatically matches orders from seller and buyer.
4. PDEx (FI Trading System) sends matching results to the seller and buyer.
5. PDEx (FI Trading System) sends trade data to PDEx (eDVP System).
6. PDEx (eDVP System) sends settlement details to the seller and buyer.
7. The seller and buyer authorize the settlement instruction for DVP.
8. PDEx (eDVP System) sends earmarked instruction to PDTC.
9. PDEx (eDVP System) sends cash settlement instruction to BSP.
10. PDTC and BTr-RoSS holds bonds before cash settlement. PDTC acts as sub-registry.
11. BSP executes cash settlement.
12. BSP sends cash settlement report to the seller, buyer, and PDEx (eDVP System).
13. PDEx (eDVP System) sends settlement instruction to Philippine Depository and Trust Corp (PDTC) and BTr-RoSS.
14. PDTC and BTr-RoSS executes bond settlement.
15. PDTC and BTr-RoSS sends settlement status to PDEx (eDVP System).
16. PDEx (eDVP System) sends bond settlement status to the seller and buyer.

*GSED = Government Securities Eligible Dealer
Source: ABMF SF2.
Figure 4. PHI Bond Transaction Flow for Foreign Investors OTC Market/DVP

Source: ABMF SF2.
Note: Description of PHI Bond Transaction Flow for Foreign Investors OTC Market/DVP

Trade Date
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 PDEex system, for price discovery, within 10 minutes.
5. International Broker receives trade confirmation.
6. Foreign Institutional Investor receives trade confirmation.

T+1
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.

Settlement Date
10. Domestic Custodian enters settlement data into BTr-RoSS.
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 BTr-RoSS), PhilPaSS sends cash settlement confirmation to Domestic Custodian.
17. Upon confirmation of cash settlement, BTr-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 Remittance Document), certifying FCY inflow for ability to repatriate at later stage without consideration of FX limitations.
22. Domestic Custodian sends securities statement to Global Custodian.
23. Domestic Custodian sends debit/credit confirmations, in form of cash statement, to Global Custodian.

Source: ABMF SF2.
Singapore (SIN)

Bond Market Infrastructures and Bond Transaction Flow
Figure 1. SIN Bond Market Infrastructure Diagram

CDP = Central Depository (Pte.) Ltd.; DCSS = Debt Securities Clearing and Settlement System; MAS = Monetary Authority of Singapore; MEPS+ = MAS Electronic Payment System; SGX = Singapore Exchange Ltd.
Source: ABMF SF2.
Figure 2. SIN Bond Transaction Flow for Domestic Trades OTC Market/DVP

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 Report
11. Cash Settlement Report (Cash)
12. Bond Settlement Report (Bond)
13. Settlement Report (Bond)
14. Settlement Report (Cash)
15. Notice of Settlement Matching Status

Source: ABMF SP2.
Note: Description of SIN Bond Transaction Flow for Domestic Trades OTC Market/DVP

1. SGS (Singapore government securities) is done on an over-the-counter basis.
2. Trades are matched among seller and buyer.
3. The bond seller sends the agreed trade instruction to MEPS+ SGS.
4. The bond buyer 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 seller and buyer.
7. MEPS Plus Book-entry clearing system creates the DVP order.
8. When the seller’s SGS account has sufficient SGS, the SGS are earmarked for transfer to the buyer.
9. Settlement data for DVP is sent to MEPS+ RTGS.
10. When the funds are available, the amount is debited from the buyer’s RTGS account and credited to the seller’s RTGS account.
11. MEPS+ RTGS simultaneously MEPS+ SGS to transfer the securities and report the cash settlement status to both sides of the trade.
12. MEPS+ SGS transfers the bonds to the buyer’s account.
13. MEPS+ SGS reports the settlement status to both seller and buyer.

Source: ABMF SF2.
Figure 3. SIN Bond Transaction Flow for Foreign Investors OTC Market/DVP

Source: ABMF SF2.
Note: Description of SIN Bond Transaction Flow for Foreign Investors OTC Market/DVP

Trade Date
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.

Settlement Date/T+1
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+ SGS.
15. Domestic Custodian sends settlement confirmation to Global Custodian.
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.

Source: ABMF SF2.
Thailand (THA)

Bond Market Infrastructures and Bond Transaction Flow
Figure 1. THA Bond Market Infrastructure Diagram

Trading
- Trade matching

CCP

Settlement matching
- Bond settlement

Cash settlement

OTC Market
- TCH (PTI)

SET (BEX)
- TCH PTI (MNS)

TSD (PTI)

BOT (BAHTNET)

BAHTNET = The Bank of Thailand Automated High-value Transfer Network; BEX = The Bond Electronic Exchange (The Stock Exchange of Thailand); MNS = Multilateral Netting System; SET = Stock Exchange of Thailand; PTI = Post Trade Integration (The Stock Exchange of Thailand); TCH = Thailand Clearing House (The Stock Exchange of Thailand); TSD = Thailand Securities Depository (The Stock Exchange of Thailand)

Source: ABMF SF2.
Figure 2. THA Bond Transaction Flow for Domestic Trades OTC Market/DVP

Source: ABMF SP2.
Note: Description of THA Bond Transaction Flow for Domestic Trades OTC Market/DVP

**OTC Market**

1. Seller and buyer trade via OTC market.
2. Seller and buyer send the transaction details to TCH via PTI System.
3. TCH matches trade data from seller and buyer.
4. TCH sends matching results to seller and buyer via PTI System.
5. TCH sends settlement details to TSD. Then, TSD checks availability and blocks securities in member account.
6. TSD sends cash settlement details to BOT.
7. BOT executes cash settlement.
8. BOT sends cash settlement confirmation to seller, buyer and TSD.
9. TSD releases blocked and executes securities delivery.
10. TSD sends settlement reports to seller, buyer and TCH via PTI System.

Source: ABMF SF2.
Figure 3. THA Bond Transaction Flow for Foreign Investors OTC Market/DVP

1. Trade Order
2. Trade Confirmation
3. Agreement on Trade and Confirmation
4. Trade Reporting
5. Trade Confirmation
6. Trade Confirmation
7. Settlement Instruction
8a. Settlement Instruction
8b. FX/Funding Instruction
9. Pre-matching Cash Statement
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. Funding of Trades
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 Confirmation
26. Securities Statement
27. Cash Statement
28. Cash Statement

Foreign Institutional Investor (direct or Investment Manager)

Source: ABMF SF2.
Note: Description of THA Bond Transaction Flow for Foreign Investors OTC Market/DVP

**Trade Date**
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 sends trade confirmation to International Broker.
6. Foreign Institutional Investor receives trade confirmation.

**T+1**
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.
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.

**Settlement Date**
12. Domestic Custodian captures settlement details in PTI.
13. Domestic Custodian retrieves matching results, via TSD terminal.
14. Domestic Custodian sends settlement 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 sends credit/debit confirmation to Domestic Custodian (as BAHTNET 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).

Source: ABMF SF2.
Viet Nam (VIE)

Bond Market Infrastructures and Bond Transaction Flow
Figure 1. VIE Bond Settlement Infrastructure Diagram

Note: Definition of trade date is different from other countries in Viet Nam since trade date is regarded as the date when securities are traded on stock exchange (in case of listed securities) or date when traded data are entered to HNX system (in case of trade registered securities). But, actual trade is agreed on OTC market before the date.

BIDV = Bank for Investment and Development of Vietnam; HOSE = Ho Chi Minh Stock Exchange; HNX = The Hanoi Stock Exchange; VSD = Vietnam Securities Depository

Source: ABMF SF2.
Figure 2. VIE Business Process Flow Government Bond Market/DVP

1. Trade
2. Trade instruction
3. Matching
4. Matching result
5. Transaction Result
6. Sending Report
7. Making notice of multilateral netting and settlement
8. Notice of cash and securities multilateral netting and settlement
9. Summary notice of cash multilateral netting and payment
10. Notice of transaction results confirmation
11. Summary report on securities multilateral netting and settlement
12. Checking cash balance on member’s deposit account
13. Balance report of member’s deposit account
14. Transforming money from member’s deposit account to Member’s cash account
15. Delivering securities from Member’s account pending for settlement into those accounts for Clearing and Settlement
16. Report on cash remittance for multilateral netting and payment
17. Transferring money from Member’s cash account to VSD’s deposit account
18., 21., 24. Report on fund transfer for multilateral netting and payment
19. Delivering securities from Member’s account to VSD’s account
20. Transferring money from VSD’s deposit account to Member’s cash account
22. Delivering securities from VSD’s account to Member’s account
23. Allocating amount from Member’s cash account to Member’s deposit account
24. Summary report on clearing and payment for cash
25. Allocating securities from Member’s account for clearing to those account for trading

Source: ABMF SF2.
Note: Description of VIE Business Process Flow Government Bond Market/DVP (1/2)

**OTC Market**

1. The seller and buyer execute bond trades via direct negotiation methods. Trade is executed before trading day, because trading day is the day when the seller and buyer input the instruction into the system.
2. Both the seller and buyer input trade instruction into the exchange system of HNX.
3. After inputting, the exchange system automatically matches the trade instructions.
4. Trading result is confirmed to the seller and buyer.
5. Each exchange market sends transaction result to VSD. VSD checks bond holding information of depository member’s clients.
6. VSD makes and sends reports to members including: Summary notice of transaction results; Notice of accounts lacking securities for settlement; and Notice of updating investor’s information. After receiving the report, members check their transactions.
7. From 14:30 to 15:30, VSD makes notice of multilateral netting and settlement.
8. From 15:30 to 16:00, VSD sends to each member “Notice of cash multilateral netting and payment” and “Notice of securities multilateral netting and settlement”.
9. From 15:30 to 16:00, VSD sends to the settlement bank: “Summary notice of cash multilateral netting and payment” From 16:00 to 16:30, VSD sends to the settlement bank in the form of files via a line between VSD and the settlement bank. After successfully sending exported file, VSD informs the result to the settlement bank.
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. If VSD fails to receive “Notice of transaction result confirmation” from members, all transactions shall be deemed exact and confirmed.
11. VSD makes and files “summary report on securities multilateral netting and settlement.”
12. 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.
13. BIDV sends the balance report of member’s deposit account for clearing and settlement to VSD.
14. From 13:00 to 14:00, 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.
15. 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.
16. BIDV sends files and documents to VSD “Report on cash remittance for multilateral netting and payment” from member’s deposit account for clearing and settlement to member’s cash account for clearing and settlement.
17. From 14:00 to 14:30, based on the payment document, 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. BIDV sends files and documents to VSD “Report on fund transfer for multilateral netting and payment” – from member’s cash account for clearing and settlement to VSD’s deposit accounts for clearing and settlement.
19. Based on the fund transfer report by BIDV, 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.
20. From 14:30 to 14:45, 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.

21. BIDV sends files and documents to VSD’s “Report on fund transfer for multilateral netting and payment” – from VSD’s deposit account for clearing and settlement to member’s cash accounts for clearing and settlement.

22. Based on the fund transfer report by BIDV, 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.

23. From 14:45 to 15:00, based on the payment documents, the 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.

24. BIDV sends files and documents to VSD “Report on fund transfer for multilateral netting and payment” from member’s cash accounts for clearing and settlement to member’s deposit account for clearing and settlement and “Summary report on clearing and payment for cash”.

25. Pursuant to the fund transfer report by the BIDV, 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).

Source: ABMF SF2.
Figure 3. VIE Business Process Flow: Revised Bond Market/DVP

Note: This Transaction Flow simplifies the flowchart of the previous page.
Source: ABMF SF2.
Figure 4. VIE OTC Bond Transaction Flow for Foreign Investors

Source: ABMF SF2.
Note: Description of VIE OTC Bond Transaction Flow for Foreign Investors

T-1
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.
5. Domestic Broker/Bank trades OTC with Counterparty (via phone), both parties signs trade agreement (contract).
6. Domestic Broker/Bank sends trade confirmation to International Broker.
8. Domestic Bank sends trade confirmation to Domestic 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.

Trade Date
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).

Settlement Date/T+1
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.

Source: ABMF SF2.
Bond Market Infrastructure Diagram
Figure 1. ASEAN+3 Government Bond Market Infrastructure Diagram

Note:
- Exchange Market
- Central Bank
- Commercial Bank

Source: ABMF SF2.