12th ASEAN+3 Bond Market Forum (ABMF) Meeting
Shangri-la Hotel, Jakarta, Indonesia, 23-24 April 2013

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

DATE &TIME	PROGRAM
17:10 – 17:20 (16:20 – 16:30)	**Closing Remarks** by Mr. Shunzo Kayanuma, SF1 Chair (In case the Session 4 is not being held)
18:00	Gather at lobby outside meeting room **Dinner** (*venue: Harum Manis Authentic Indonesian Restaurant, Pavilion Apartment, Retail Arcade, Jl. K.H. Mas Mansyur Kav. 24 Jakarta 10220*)

24 APR 2013	DAY 2: ABMF Sub-Forum2 (SF2)
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 (14:50 – 15:20)	**Session 10: Other issues of SF2** - Leveraging ABMF activities (ABMI TF3 Chair) - Work plan after Jakarta meeting (ADB secretariat) (In case the Session 9 is not being held)

DATE &TIME	PROGRAM
16:50 – 17:00 (15:20 – 15:30)	**Wrap up** by ADB Secretariat (In case the Session 9 is not being held)
17:00 – 17:10 (15:30 – 15:40)	**Closing Remarks** by Mr. Jong Hyung Lee, SF2 Chair (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

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Glossary / Acronyms

ABMF	ASEAN+3 Bond Market Forum
ABMI	Asian Bond Markets Initiative
AMA	Account Management Agent
ANNA	Association of National Numbering Agencies
ASEAN+3	Association of Southeast Asian Nations, the People's Republic of China, Japan, and the Republic of Korea
BI	Bank Indonesia
BIC	Business Identifier Code
BIS	Bank for International Settlements
BRU	Brunei Darussalam
BOJ	Bank of Japan
BTr	Bureau of Treasury
CAM	Kingdom of Cambodia
CCP	Central Counterparty
CPSS	Committee on Payment and Settlement Systems
CSD	Central Securities Depository
CSDCC	China Securities Depository and Clearing Company Limited
DVP	Delivery versus Payment
EU	European Union
EX	Exchange
FX	Foreign Exchange
HKG	Hong Kong, China
HKMA	Hong Kong Monetary Authority
INO	Republic of Indonesia
IOSCO	International Organization of Securities Commissions
ISIN	International Securities Identification Number
ISO	International Organization for Standardization
JASDEC	Japan Securities Depository Center

JGBCC	Japan Government Bond Clearing Corporation
JPN	Japan
KPEI	PT Kliring Penjaminan Efek Indonesia (Indonesian Clearing and Guarantee Corp.)
KOR	Republic of Korea
KRX	Korea Exchange
KSD	Korea Securities Depository
KSEI	PT Kustodian Sentral Efek Indonesia (Indonesian Central Securities Depository)
LAO	Lao People's Democratic Republic
LCY	Local Currency
MAL	Malaysia
MAS	Monetary Authority of Singapore
MOF	Ministry of Finance
MYA	Republic of the Union of Myanmar
OTC	Over-The-Counter
PA	Paying Agent
PDEx	Philippine Dealing and Exchange Corporation
PDTC	Philippine Depository & Trust Corp.
PFMI	Principles for Financial Market Infrastructures
PHI	Republic of the Philippines
PRC	People's Republic of China
PSET	Place of Settlement
PSMS	Pre-Settlement Matching System
RTGS	Real Time Gross Settlement
SF1	Sub-Forum 1
SF2	Sub-Forum 2
SHCH	Shanghai Clearing House
SIN	Republic of Singapore
SRO	Self-Regulatory Organization

SSS	Securities Settlement System
STP	Straight Through Processing
THA	Kingdom of Thailand
TR	Trade Repository
TS	Trading System
TSD	Thailand Securities Depository
TWA	Tax Withholding Agent
VIE	Socialist Republic of Viet Nam
VSD	Vietnam Securities Depository
WHT	Withholding Tax

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[1]. 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[2]. SF2 focuses on enhancing regional straight through processing (STP) by harmonization of transaction procedures and standardization of messages.

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

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[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

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[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[4], 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

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[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[5], and PHI5 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.

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[5] Partial pre-settlement matching system

Figure 1: ASEAN+3 Government Bond Market Diagram

	MYA LAO CAM BRU	VIE	THA	SIN	PHI	MAL	KOR	JPN	INO	HKG	PRC	
Trade	Brunei Cambodia Lao PDR Myanmar	OTC	OTC	OTC	OTC / PDEx	OTC	OTC / KRX	OTC	OTC / IDX	OTC	OTC Inter-bank Bond Market	SSE & SZSE
Trade match.		HNX	TCH PTI		PDEx	BMS ETP	KRX	JASDEC PSMS	KSEI	HKMA CMU	CFETS	SSE & SZSE
Clear-ing						BMS	KRX	JGBCC	KPEI			
Settle. Match.		VSD	TCH PTI	MAS MEPS+ SGS	PDEx eDvP / PDTC	PDEx Ross STP Facility / BTr BTr-ROSS	KSD	JASDEC PSMS	BI BI-SSSS	HKMA CMU	CCDC	CSDCC
Bond Settle.			TSD PTI			BNM RENTAS-SSDS		BOJ BOJ-NET				
Cash settle.		BIDV	BOT BAHTNET	MAS MEPS+ RTGS	BSP PhilPass	BNM RENTAS-IFTS	BOK BOK-Wire+	BOJ BOJ-NET	BI BI-RTGS	HKMA CHATS	PBOC HVPS CNAPS	Comm. Banks

NOTE:

Exchange	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.

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Figure 2: ASEAN+3 Corporate Bond Market Diagram

	MYA LAO CAM BRU	VIE	THA	SIN	PHI	MAL	KOR	JPN	INO	HKG	PRC
Trade	Brunei Cambodia Lao PDR Myanmar	OTC	OTC	OTC	OTC / PDEx	OTC	OTC / KRX	OTC	OTC / IDX	OTC	OTC Inter-bank Bond Market / SSE & SZSE
Trade match.		HNX/HOSE	TCH PTI		PDEx	BMS ETP	KRX	JASDEC PSMS	KSEI	HKMA CMU	CFETS / SSE & SZSE
Clear-ing						BMS	KRX		KPEI		
Settle. Match.		VSD	TCH PTI	CDP PSMS	PDEx eDvP / PDTC	BNM RENTAS-SSDS	KSD	JASDEC PSMS / JASDEC Book Entry Transfer System	KSEI C-BEST	HKMA CMU	SHCH / CCDC / CSDCC
Bond Settle.			TSD PTI	CDP DCSS							
Cash settle.		BIDV	BOT BAHTNET	MAS MEPS+ RTGS	BSP PhilPass	BNM RENTAS-IFTS	BOK BOK-Wire+ / Commercial Banks	BOJ BOJ-NET	Commercial Banks	HKMA CHATS	PBOC HVPS CNAPS / Commercial Banks

NOTE:

- Exchange
- Central Bank
- Government
- Exchange related
- Central Bank related
- Government related
- Commercial Bank

→ Direct intersystem 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 related[6] 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 1[7] 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

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[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)
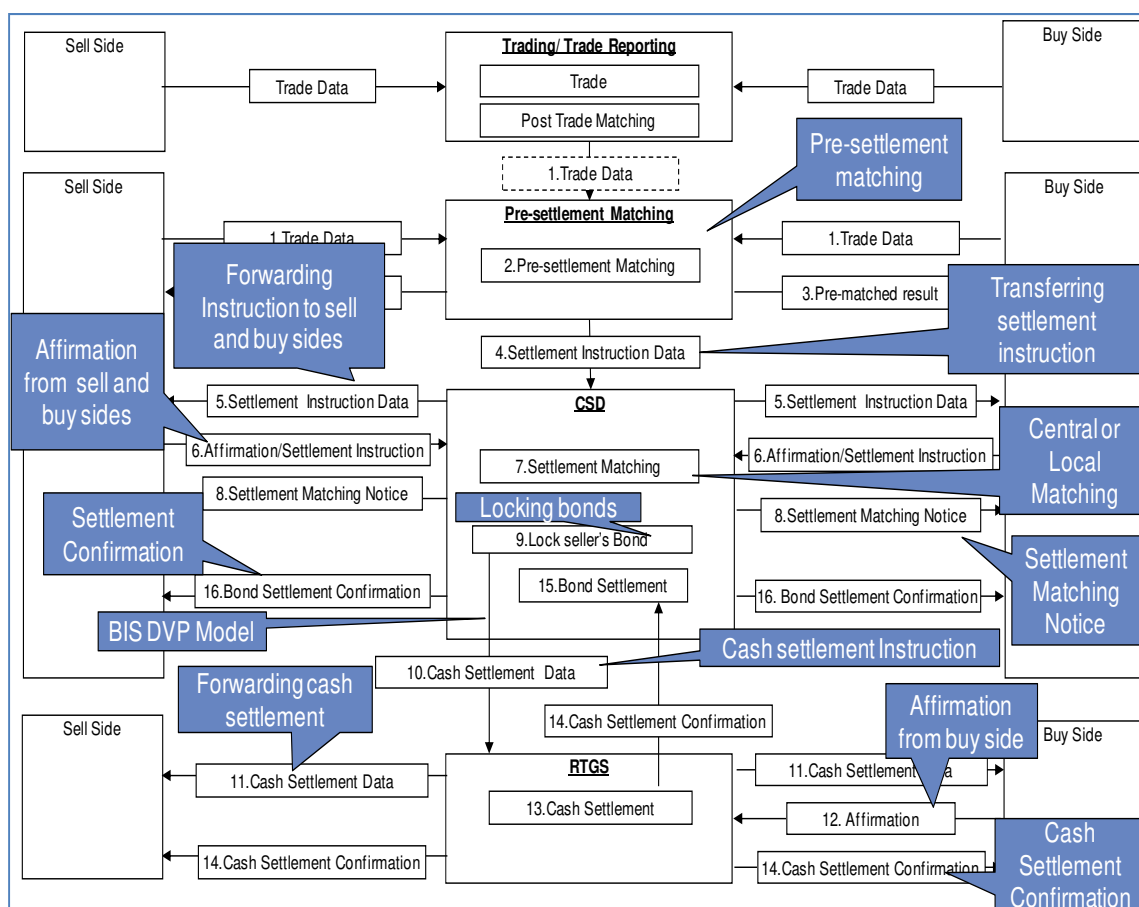
a)   "Settlement Instruction Data" are transferred online from an upstream system such as PSMS or other systems including TR and TS to the

CSD from the view point of STP. In PRC, KOR, JPN[8], 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[9] 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[10] and VIE for both government and corporate bonds.

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

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[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 PDEx (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[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

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[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).
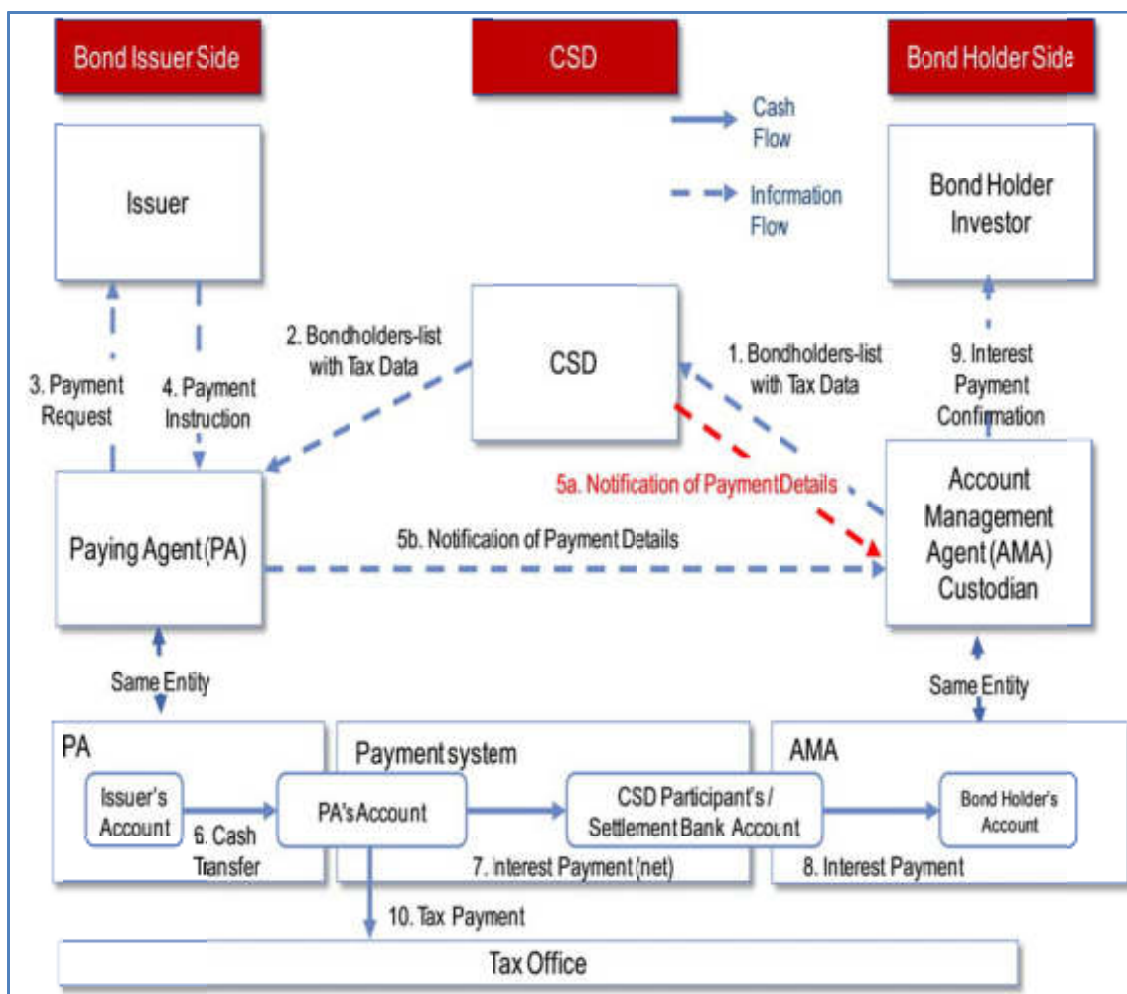
a)   Regarding government bonds, central banks are PA of the issuer (MOF) for interest payment and redemption in 7 economies (HKG, INO, JPN, KOR, MAL, SIN, and THA) out of the 10 economies which have bond markets in ASEAN+3. CSDs are the PA in two economies (PRC and VIE).   The Bureau of Treasury (BTr) 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,

PHI, SIN and THA). CSDs are PA in 3 economies (PRC, INO, and VIE).

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.

	PA of Issuer	CSD	Payment system	TWA
PRC	CCDC CCDC	CCDC CSDCC	CNAPS Commercial Bank	None None
HKG	HKMA	HKMA	CHATS	None
INO	BI	BI	BI-RTGS	CSD partic.
JPN	BOJ	BOJ	BOJ-Net	BOJ/CSD partic. (None for non-residents)
KOR	BOK	KSD	BOK-Wire+	KSD's bank
MAL	BNM	BNM	RENTAS-IFTS	None
PHI	BTr	BTr	PhilPaSS	BTr
SIN	MAS	MAS	MEPS+	CSD partic. (None for non-residents)
THA	BOT	TSD	BAHTNET	BOT
VIE	VSD	VSD	BIDV system	None

	PA of Issuer	CSD	Payment system	TWA
PRC	CSDCC SHCH CCDC	CSDCC SHCH CCDC	Com. Bank system CNAPS CNAPS/Com. Bank Sys	CSDCC Bond holder Bond holder
HKG	Commercial Bank	HKMA	CHATS	None
INO	KSEI	KSEI	KSEI's Bank system	KSEI
JPN	Commercial Bank	JASDEC	BOJ-Net	PA/CSD partic. (None for non-residents)
KOR	Commercial Bank	KSD	BOK-Wire+ Com. Bank system	KSD's bank
MAL	Commercial Bank	BNM	RENTAS-IFTS	None
PHI	Commercial Bank	PDTC	PhilPaSS	PDTC
SIN	Commercial Bank	CDP	MEPS+	CSD partic. (None for non-residents)
THA	Commercial Bank	TSD	BAHTNET	Commercial Bank
VIE	VSD	VSD	BIDV system	Issuer

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.

Index	Message Item	Code	Or	Min Occ	Max Occ	Type	10 common elements
	SecuritiesSettlementTransactionInstructionV03			1	1	sese.023.001.03	
	SctiesSttlmTxInstr			1	1	SecuritiesSettlementTransactionInstructionV03	
1.0	TransactionIdentification			1	1	Max35Text	1. Instruction Identification
2.0	SettlementTypeAndAdditionalParameters			1	1	SettlementTypeAndAdditionalParameters1	
2.1	SecuritiesMovementType	DELI/RECE		1	1	ReceiveDelivery1Code	
2.2	Payment	APMT		1	1	DeliveryReceiptType2Code	
3.0	NumberCounts			0	1	NumberCount1Choice	
4.0	Linkages			0	n	Linkages17	
5.0	TradeDetails			1	1	SecuritiesTradeDetails1	
5.5	TradeDate			0	1	TradeDate1Choice	
	Date		or	1	1	DateAndDateTimeChoice	2. Trade Date
	Date		or	1	1	ISODate	
5.6	SettlementDate			1	1	SettlementDate1Choice	
	Date		or	1	1	DateAndDateTimeChoice	3. Settlement Date
	Date		or	1	1	ISODate	
	DateTime		or	1	1	ISODateTime	
6.0	FinancialInstrumentIdentification			1	1	SecurityIdentification14	5. Financial Instrument
	ISIN			0	1	ISINIdentifier	
	OtherIdentification			0	n	OtherIdentification1	

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

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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[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

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[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).

	Securities Numbering	Financial Instituion Identification	Securities Account	Cash Account	Encoding Scheme and Language
PRC	Proprietary	Proprietary	Proprietary	Proprietary	Unicode (UTF-8) EBCDIC
HKG	ISIN and Proprietary (CMU issue)	Proprietary	Proprietary	Proprietary	Code supported by SWIFT
INO	ISIN and Proprietary	BIC and Proprietary	Proprietary	Proprietary	
JPN	Proprietary Code and ISIN (for new systems)	BIC and Proprietary	Proprietary	Proprietary	Unicode (UTF-8)
KOR	ISIN and Proprietary	Proprietary (account number)	Proprietary	Proprietary	KSC5601 for Korean
MAL	Proprietary		Proprietary	Proprietary	
PHI	Proprietary	Proprietary (PDS-assigned firm)	Proprietary	Proprietary	Unicode (UTF-8)
SIN	ISIN and SGX proprietary stock code	proprietary	Proprietary	Proprietary	Unicode (UTF-8)
THA	ISIN	BIC	Proprietary	Proprietary	Unicode (UTF-8)
VIE	ISIN and proprietary	N/A	Proprietary	NA	Unicode (UTF-8)

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"[13] needs to be issued for capital repatriation and/or remittance of interest payment in PHI.
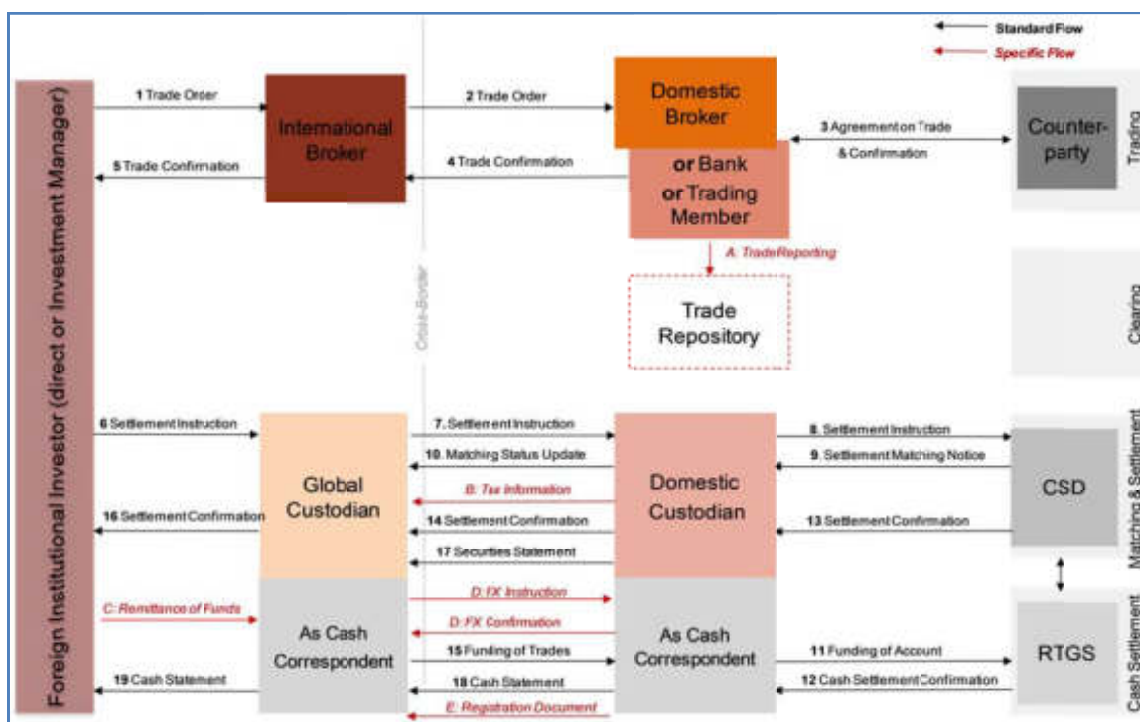
	FX Trades with Underlying Investment	Pre-funding	Prohibition of Third-party FX	FX Reporting	Prohibition of Overdraft by Non-residents	Prohibition of Offshore FX Trading for Investment	Limitation on Repatriation
PRC	Y	Y	Y	Y	Y	Y	Y
HKG	N	N	N	N	N	N	N
INO	Y	N	N	Y	Y	Y	Y
JPN	N	N	N	N	N	N	N
KOR	N	N	Y	Y	Y	Y	N
MAL	Y	N	N	N	Y	N	N
PHI	N	N	N	Y	Y	N	Y
SIN	N	N	N	N	N	N	N
THA	Y/N	N	N	Y	N	N	N
VIE	Y	Y	N	Y	Y	Y	Y /N

Revised

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[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 polices 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.
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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

COUNTRY / ECONOMY	MEMBERSHIP CATEGORY	ORGANIZATION
Brunei Darussalam	NM	Autoriti Monetari Brunei Darussalam
Cambodia	NM	Securities and Exchange Commission of Cambodia (SECC)
China, PRC	NE	China Central Depository & Clearing Co., Ltd. (CCDC)
	NE	China Foreign Exchange Trade System / National Interbank Funding Center
	NE	China Securities Depository and Clearing Corporation Limited Shanghai (CSDCC)
	NM	China Security Regulatory Commission
	NM	Hong Kong Monetary Authority (HKMA)
	NM	National Association of Financial Market Institutional Investors (NAFMII)
	NE	Shanghai Clearing House (SHCH)
Indonesia	NM	Capital Market and Financial Institutions Supervisory Board, Ministry of Finance
	NE	Indonesia Central Securities Depository
	NE	Indonesia Clearing and Guarantee Corporation
	NE	Indonesia Stock Exchange
	NM	Ministry of Finance
Japan	NM	Japan Securities Depository Center, Inc.
	NE	Mizuho Corporate Bank, Ltd.
Korea	NE	Korea Exchange (KRX)
	NM	Korea Securities Depository (KSD)
	NE	KOSCOM
Lao PDR	NM	Ministry of Finance, Lao PDR
	NM	Securities and Exchange Commission Office, Bank of the Lao PDR
Malaysia	NM	Bond Pricing Agency Malaysia (BPAM)

COUNTRY / ECONOMY	MEMBERSHIP CATEGORY	ORGANIZATION
Republic of the Union of Myanmar	NM	Central Bank of Myanmar
Philippines	NM	Bankers Association of the Philippines (BAP)
	NE	OMGEO
	NM	Philippine Dealing System Holdings Corp. / PDS Group
Singapore	NM	Singapore Exchange (SGX)
Thailand	NM	The Stock Exchange of Thailand (SET)
Viet Nam	NM	Hanoi Stock Exchange (HNX)
	NM	Vietnam Securities Depository (VSD)
International Experts		BNP Paribas
		Clearstream
		Citibank
		Deutsche Bank AG
		Euroclear
		HSBC
		J.P. Morgan
		State Street Bank and Trust
		State Street Global Advisors
		SWIFT
		The Bank of Tokyo Mitsubishi UFJ Ltd.

SF2 Member Feedback (up to 19 Apr 2013)

Comments	Response	Remaining issues	No.
Koji Kawashima and Yohei Kitano MOFJ B. Roadmap and future work plan (page 25) should be as follows: 1) Short Term (2013): Preparation for Phase 3 activities • Conducting further study on the proposed four topics of phase 3 activities ⎮ With respect to1) – 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 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	Reflected.	None	1

Comments	Response	Remaining issues	No.
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

Comments	Response	Remaining issues	No.
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.			
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	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.	The final position to be discussed and confirmed with the members	6

Comments	Response	Remaining issues	No.
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.			
Margeret M. Tang KSEI 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 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	Reflected Reflected	None None	7
Margeret M. Tang KSEI 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	Reflected.	None	8

Comments	Response	Remaining issues	No.
redemption),			
Taketoshi Mori BTMU P7 In the chart 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.	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.	To be discussed during phase 3 activities.	9
Taketoshi Mori BTMU P20 paragraph 19 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.	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.	None	10
Taketoshi Mori BTMU P21 paragraph 19 I don't believe that harmonization of PA, AMA, TWA contributes on cross-boarder STP.	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.	The final position to be discussed and confirmed with the members	11

Comments	Response	Remaining issues	No.
I think it is not possible to harmonize Interest Payment Flows which is very unique and related with tax issues.	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.	The final position to be discussed and confirmed with the members	
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

Comments	Response	Remaining issues	No.
	investor identification.		
Taketoshi Mori BTMU P23 paragraph 21 Account Structure: It is better to admit omnibus account structure. Other harmonization of account structure is not beneficial to improve efficiency and STP.	It is not clear whether just adopting anonymous account structure would be a solution. 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 structure 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	14
Taketoshi Mori BTMU P24 paragraph 22 I totally agree with removing FX and Cash Controls.	Points are well taken	None	15
Taketoshi Mori BTMU P25 paragraph 23 Cut off time and fail rule is same as above. It is not useful.	Deleted. Please refer the earlier response on cut-off time, too.	The final position to be discussed and confirmed with the members	16

Comments	Response	Remaining issues	No.
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
Mike Tagai J.P.Morgan			20

Comments	Response	Remaining issues	No.
Page iv "Such harmonization could be utilized for defining requirements of interlinking gateways and/or a hub between CSD and/or RTGS systems in the region." Is this last sentence necessary?	Yes, we think it is one of important objectives to conduct fit and gap analysis.	None	
Mike Tagai J.P.Morgan Page vii Compliant or compatible Migration or adoption 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. Same as above. Migration comes after a community agrees to adopt a new standard. You cannot be seen as trying to force migration.	We are not saying right or wrong when mentioning "compliant" or "migration" We are not trying to "forcing them" bur 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. 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.	The final position to be discussed and confirmed with the members	21
Mike Tagai J.P.Morgan			22

Comments	Response	Remaining issues	No.
Page vii Market practices Same as Mori-san on this one. JPMorgan's network market managers see no benefit in harmonizing cut-off times and fail rules. Settlement cycles in line with FX spot dates could be useful. But the two others are better to be made visible but no point in harmonizing.	Reflected. Please refer the response above to the same points.	The final position to be discussed and confirmed with the members	
Mike Tagai J.P.Morgan Page vii 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 border. Given the inconsistency, suggest to rework this part.	Reflected to incorporate the point. Please review.,	None	23
Mike Tagai J.P.Morgan Page vii "from technological perspective" Do not understand what technological means but it would be	Reflected as "from the viewpoint of business flows"	None	24

Comments	Response	Remaining issues	No.
useful to understand the business flows			
Mike Tagai J.P.Morgan Page viii d) Survey on cross-border collateral, repo, and DVP 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.	The title and description has been changed to follow the comments. Please review.	None	25
Mike Tagai J.P.Morgan Page 2 paragraph 8 Central bank related Related is not a right word just as exchange related is not a right term. Is it owned? Operated? Governed?	Footnote is added.	None	26
Mike Tagai J.P.Morgan Page 18 paragraph 17 "are not fully implemented yet" to be changed "do not exist in many economies" . "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".	We think the current expression would be more appropriate and consistent with other part. There are some more general reasons, for example efficiency, funding cost, and so on, other than visibility and risk.	The final position to be discussed and confirmed with the members	27

Comments	Response	Remaining issues	No.
Mike Tagai J.P.Morgan Page 18 paragraph 17 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	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.	None	28
Mike Tagai J.P.Morgan Page 20 paragraph 18 At the same time, conversions at intermediaries are also to be minimized. Do not understand the meaning of conversions	Reflected to incorporate your point.	None	29
Mike Tagai J.P.Morgan Page 23 paragraph 21 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	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	The final position to be discussed and confirmed with the members	30

Comments	Response	Remaining issues	No.
	structure would become more important. This could be discussed as the market and discussion develops.		
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

Comments	Response	Remaining issues	No.
CSDs to CSDs?	systems in ASEAN+3 is aiming at utilizing central bank money'		
Mike Tagai J.P.Morgan Page 25 paragraph 23 2) Work on Standardizing Message Items: I thought this piece of work had concluded through the fit and gap analysis.	During the phase 2, only how to make fit & 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.	None	34
Mike Tagai J.P.Morgan Page 25 paragraph 23 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	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.	The final position to be discussed and confirmed with the members .	35
Mike Tagai J.P.Morgan Page 26 paragraph 23 The study also includes survey on commonalities and differences of interest payment flows related to cross-border collateral and repo.	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.	None	36

Comments	Response	Remaining issues	No.
If it is going to involve tax implications, it may difficult to gain traction.			
Mike Tagai J.P.Morgan Page 27 paragraph 24 2)　　Medium Term (2014-2015): ·　　Proposal on standardizing market practices, where possible I thought we agreed to say "agree upon best practices in the market"	Reflected to incorporate the point.	None	37
Mike Tagai J.P.Morgan Page 27 paragraph 24 •　　Progress in discussion on linkage of bond market infrastructures in the region. Is this scope creep to TF4 matters?	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.	None.	38
Taiji Inui ADB consultant for SF2 from NTT DATA Corporation Page vi, P3 and 18 paragraph 8 and 17			39

Comments	Response	Remaining issues	No.
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) | Reflected. . | None | |
| 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'. | Reflected. | None | 40 |
| Taiji Inui
ADB consultant for SF2 from NTT DATA Corporation

Editorial comments: Starting capital letter for nouns of title phrase with bold characters, etc. | Reflected. | None | 41 |

Comments	Response	Remaining issues	No.
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

Comments	Response	Remaining issues	No.
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"			
Nellie Dagdag Omgeo Page 8, paragraph 9 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. 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.	Reflected	None	45
Nellie Dagdag Omgeo Page 8 paragraph 9			46

Comments	Response	Remaining issues	No.
Following note is added to PH: 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.	Reflected	None	
Nellie Dagdag Omgeo Page 14, paragraph 13 Following sentence is added. In PH, BIC is used only for cash settlement instructions sent to the central bank's RTGS system.	Reflected	None	47
Nellie Dagdag Omgeo Page 19, paragraph 17 For those economies without a TR, it is advisable to consider establishing it when market develops significantly. The above to be the following: 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.	Point well noted but not reflected yet	The final position to be discussed and confirmed with the members.	48
Nellie Dagdag Omgeo Page 20, paragraph 18			49

Comments	Response	Remaining issues	No.
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.	Point well noted but not reflected yet	The final position to be discussed and confirmed with the members.	
Nellie Dagdag Omgeo Page 21 paragraph 19 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	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.	None	50

Comments	Response	Remaining issues	No.
cost.			
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	Point well noted but not reflected yet	The final position to be discussed and confirmed with the members.	52

21

Comments	Response	Remaining issues	No.
economies. It affects both STP and market efficiency, thus, it is perceived as important to prioritize a review of such regulations gradually in a long term perspective together with market developments.			
Nellie Dagdag Omgeo Page 25, paragraph 23 3) 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. Please note to include in the future study the timeliness of assigning/publishing security identifier for purposes of trading.	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.	To be further discussed during phase 3.	53
Taiji Inui ADB consultant for SF2 from NTT DATA Corporation Page 8 footnote FY2015 is removed.	Reflected	None	54
Susan Monteagudo ADB secretariat team Editorial correction for all pages	Reflected	None	55
Jason Lee			

Comments	Response	Remaining issues	No.
ADB secretariat team Country codes based on ISO 3166-2 are to be changed to ADB country codes	Reflected	To be discussed.	56
Tran Thi Thu Huyen VSD 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" .	Reflected	None	51

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

Diagram of each Economy

ASEAN+3 Government Bond Market Diagram

	MM LA KH BN	VN	TH	SG	PH	MY	KR	JP	ID	HK	CN	
Trade	Brunei Cambodia Lao PDR Myanmar	OTC	OTC	OTC	OTC / PDEx	OTC	OTC / KRX	OTC	OTC / IDX	OTC	OTC Inter-bank Bond Market	SSE & SZSE
Trade match.		HNX	TCH PTI		PDEx	BMS ETP	KRX	JASDEC PSMS	KSEI	HKMA CMU	CFETS	SSE & SZSE
Clearing						BMS	KRX	JGBCC	KPEI			CSDCC
Settle. Match.		VSD	TCH PTI	MAS MEPS+ SGS	PDEx eDvP / PDTC	PDEx Ross STP Facility	BNM RENTAS-SSDS	KSD	JASDEC PSMS	BI BI-SSSS	HKMA CMU	CCDC	
Bond Settle.			TSD PTI			BT BTr-ROSS			BOJ BOJ-NET				
Cash settle.		BIDV	BOT BAHTNET	MAS MEPS+ RTGS	BSP PhilPass	BNM RENTAS-IFTS	BOK BOK-Wire+	BOJ BOJ-NET	BI BI-RTGS	HKMA CHATS	PBOC HVPS CNAPS	Comm. Banks

NOTE:

- Exchange (pink)
- Central Bank (green)
- Government (orange)
- Exchange related (light blue)
- Central Bank related (teal)
- Government related (gray-blue)
- Commercial Bank (yellow)

→ Direct intersystem connection

⇢ Indirect connection . Trade data (bond settlement instructions) are entered to CSD by agent custodians.

2

* This diagram shows entities which is involved in major types of transactions.

ASEAN+3 Government Bond Market Diagram

	CN	HK	ID	JP	KR	MY	PH	SG	TH	VN
Trade	OTC EX	OTC	OTC EX	OTC	OTC EX	OTC	OTC EX	OTC	OTC	OTC
Clearing	Y*	N	N	Y	Y*	Y*	N	N	N	N
Bond Settlement	Central bank Related CSD **	Central bank Owned CSD	Central bank Owned CSD	Central bank Owned CSD	Exchange Related CSD	Central bank Owned CSD	Bureau of Treasury, Exchange Related CSD	Central bank Owned CSD	Exchange Related CSD	Exchange Related CSD
Cash Settlement	Central bank money	Central bank money	Central bank money	Central bank money	Central bank money	Central bank money	Central bank money	Central bank money	Central bank money	Commercial bank money

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

Columns: MM LA KH BN | VN | TH | SG | PH | MY | KR | JP | ID | HK | CN

	MM LA KH BN	VN	TH	SG	PH	MY	KR	JP	ID	HK	CN
Trade	Brunei Cambodia Lao PDR Myanmar	OTC	OTC	OTC	OTC / PDEx	OTC	OTC / KRX	OTC	OTC / IDX	OTC	OTC Inter-bank Bond Market / SSE & SZSE
Trade match.		HNX/HOSE	TCH PTI		PDEx	BMS ETP	KRX	JASDEC PSMS	KSEI	HKMA CMU	CFETS / SSE & SZSE
Clearing						BMS	KRX		KPEI		
Settle. Match.		VSD	TCH PTI	CDP PSMS	PDEx eDvP / PDTC	BNM RENTAS-SSDS	KSD	JASDEC PSMS	KSEI C-BEST	HKMA CMU	SHCH / CCDC / CSDCC
Bond Settle.			TSD PTI	CDP DCSS				JASDEC Book Entry Transfer System			
Cash settle.		BIDV	BOT BAHTNET	MAS MEPS+ RTGS	BSP PhilPass	BNM RENTAS-IFTS	BOK BOK-Wire+ / Commercial Banks	BOJ BOJ-NET	Commercial Banks	HKMA CHATS	PBOC HVPS CNAPS / Commercial Banks

NOTE:

- Exchange Market
- Central Bank
- Government
- Exchange related
- Central Bank related
- Government related
- Commercial Bank

→ Direct intersystem 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.

4

ASEAN+3 Corporate Bond Market Diagram

	CN	HK	ID	JP	KR	MY	PH	SG	TH	VN
Trade	OTC EX	OTC	OTC EX	OTC	OTC EX	OTC	OTC EX	OTC	OTC	OTC
Clearing	Y*	N	Y*	N	Y*	Y*	N	N	N	N
Bond Settlement	CB and EX Related CSD	Central bank Owned CSD	Exchange Related CSD	Exchange Related CSD	Exchange Related CSD	Central bank Owned CSD	Exchange Related CSD	Exchange Related CSD	Exchange Related CSD	Exchange Related CSD
Cash Settlement	Commercial and Central bank money	Central bank money	Commercial bank money	Central bank money	Commercial and Central bank money	Central bank money	Central bank money	Central bank money	Central bank money	Commercial bank money

Note: EX (Exchange)

*: CCP exists an exchange function. But, transaction volume/value through exchange is negligibly small.

5

Brunei Darussalam (BN)

1. <u>Bond Market Infrastructure Diagram (Government Bond)</u>

2. <u>Profit Payment Flow of Government Sukuk Al-Ijarah</u>

3. <u>Redemption Flow of Government Sukuk Al-Ijarah</u>

BN Government Bond Market Infrastructure Diagram

Trading Trade matching	OTC Market
CCP	
Settlement match. Bond settlement	Appointed Custodian
Cash settlement	Appointed Cash Settlement Bank

BN Profit Payment Flow of Government Sukuk Al-Ijarah

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

MOF (Ministry of Finance)

Sukuk Holder

3 Payment approval received

2. Payment approval request

1. Notification of Profit Payment

Appointed Custodian as CSD

7. Profit Payment Confirmation

AMBD as Paying Agent

Appointed Settlement Bank

4. Payment Instruction

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

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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.

BN Redemption Payment Flow of Government Sukuk Al-Ijarah

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

MOF (Ministry of Finance)

3 Payment approval received

2. Payment approval request

1. Notification of Profit Payment

Appointed Custodian as CSD

7. Delete Registration

Sukuk Holder

8. Profit Payment Confirmation

AMBD as Paying Agent

4. Payment Instruction

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

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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)
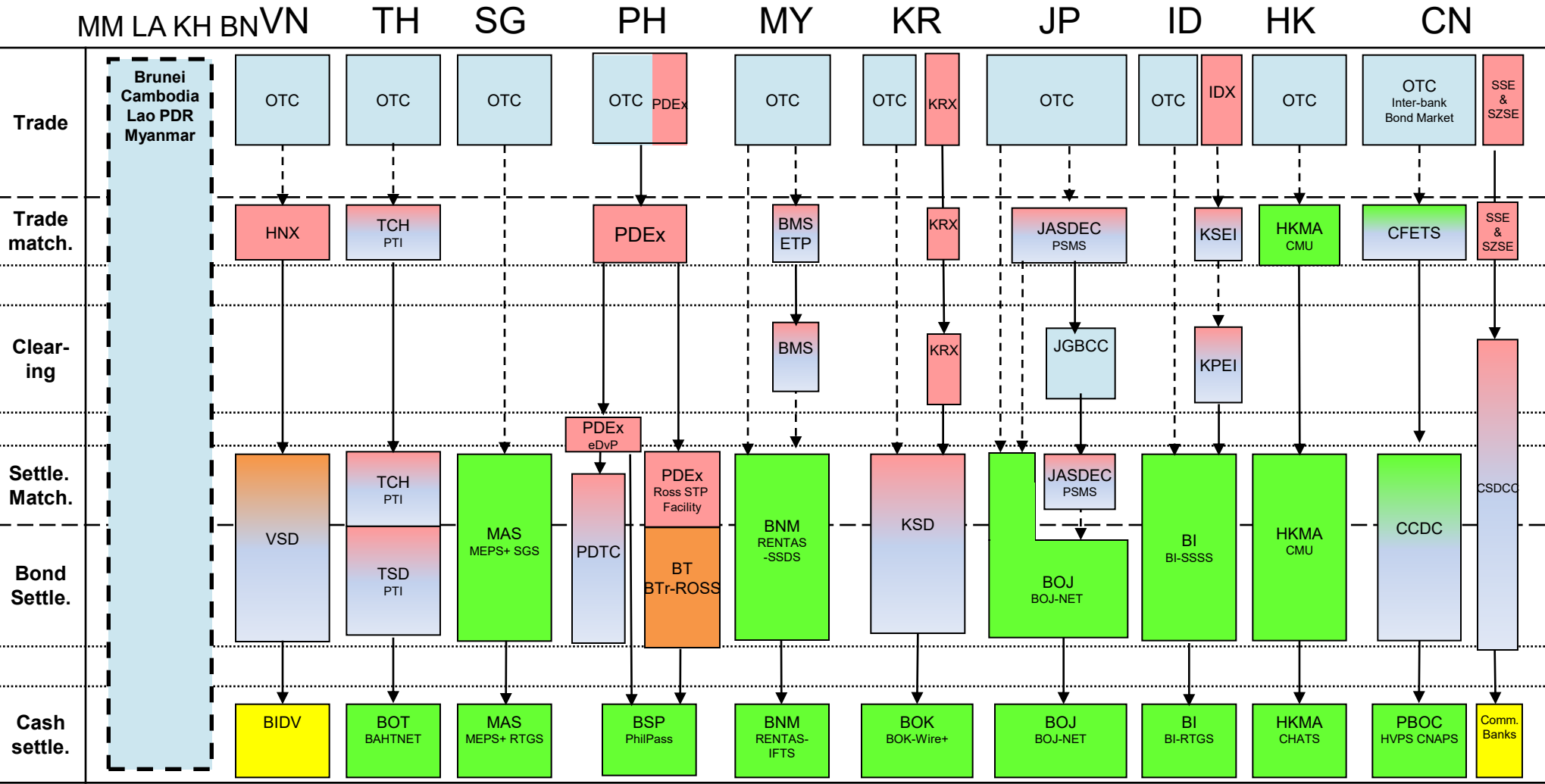
1. Bond Market Infrastructure Diagram

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

CN Government Bond Market Infrastructure Diagram
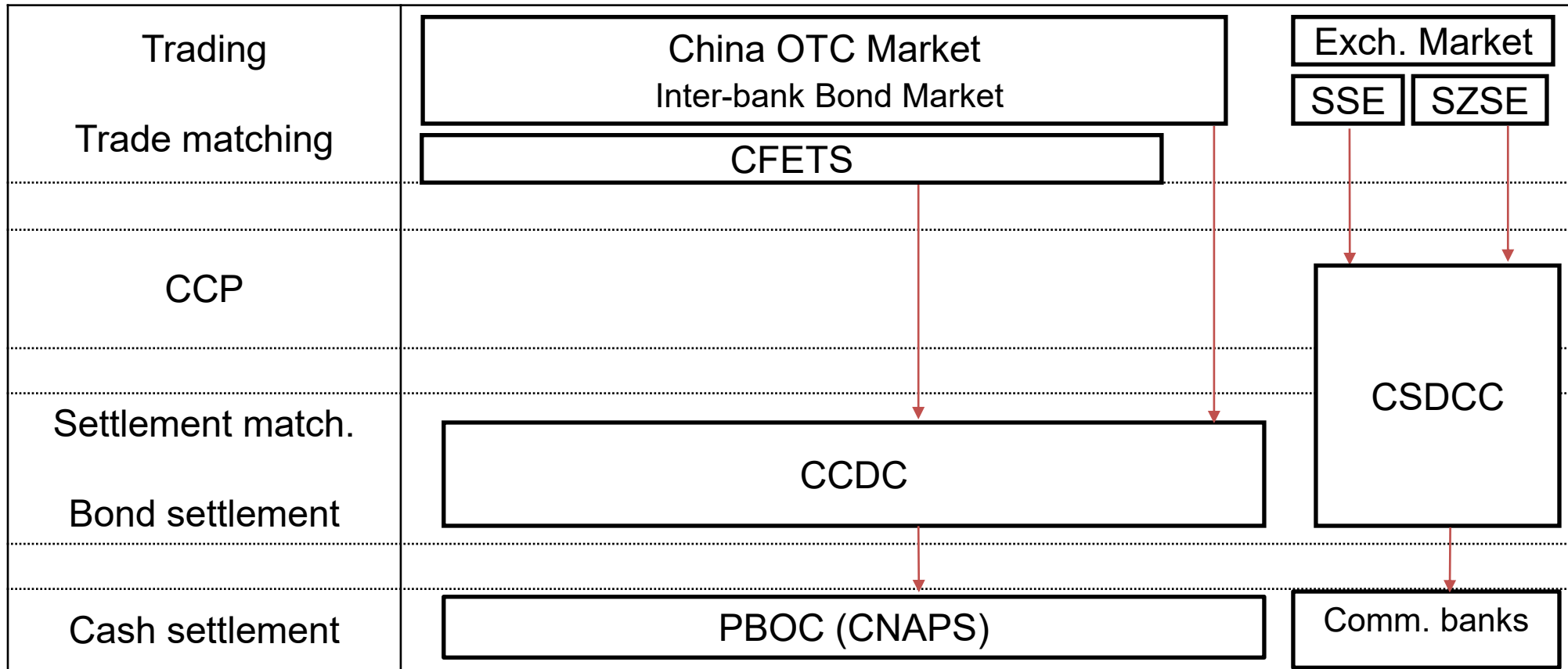
CFETS & NIFC: China Foreign Exchange Trade System & National Interbank Funding Center, SSE: Shanghai stock exchange, SZSE: Shenzhen stock exchange, CCDC: China Central Depository and Clearing Corporation, CSDCC: China Securities Depository and Clearing Corporation, SHCH (Shanghai Clearing House), CNAPS: China National Automatic Payment System
Note: Commercial Bank Counter Market is not shown here.

CN Corporate Bond Market Infrastructure Diagram

CFETS & NIFC: China Foreign Exchange Trade System & National Interbank Funding Center, SSE: Shanghai Stock Exchange, SZSE: Shenzhen Stock Exchange, CCDC: China Central Depository and Clearing Corporation, CSDCC: China Securities Depository and Clearing Corporation, SHCH (Shanghai Clearing House), CNAPS: China National Automatic Payment System
Note: Commercial Bank Counter Market is not shown here.

CN Government Bond Transaction Flow
for Domestic Trades (OTC)

Sell Side

Buy Side

CFETS

1. Trade

2. Trade Data

3. Trade Data	**CCDC（CBGS）**	3. Trade Data
4. Settlement Instruction	4. Settlement Instruction Receiving	4. Settlement Instruction
5. Settlement Instruction Matching Notice	5. Settlement Instruction Matching	5. Settlement Instruction Matching Notice
	6. Settlement Contract Producing	
7. Settlement Executing Status Notice	7. Contract Executing on Delivery Day	7. Settlement Executing Status Notice
	8. Sell side's Bond Locking	
14. Settlement Completion Notice	9. DVP Fund Settlement Request	14. Settlement Completion Notice
	13.Bond Delivery	

9. DVP Fund Settlement Request

12. DVP Fund Settlement Notice

PBOC (CNAPS)

11. Fund Transfer Notice	10. Fund Transfer Processing	11. Fund Transfer Notice

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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)

Sell Side

Buy Side

SSE or SZSE

1. Trade Order

1. Trade Order

2. Trade Matching

3. Notice of Trade

3. Notice of Trade

4. Trade Data

CSDCC

Multilateral Net Settlement System(MNS System)

6. Clearing Result

5. Clearing

6. Clearing Result

8. Notification of Trade To Be Settled

7. Settlement Data

8. Notification of Trade To Be Settled

9. Affirmation of Settlement

9. Affirmation of Settlement

13.Bond Settlement

14. Settlement Report (Bonds & Cash)

14. Settlement Report (Bonds & Cash)

10. Settlement Data

12. Settlement Report

Payment Banks

12. Settlement Report (cash)

11. Cash Settlement

12. Settlement Report (cash)

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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.

CN Corporate 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
- 7. Settlement Executing Status Notice
- 14. Settlement Completion Notice
- 11. Fund Transfer Notice

CFETS
- 1. Trade
- 2. Trade Data

CCDC（CBGS） or SHCH
- 4. Settlement Instruction Receiving
- 5. Settlement Instruction Matching
- 6. Settlement Contract Producing
- 7. Contract Executing on Delivery Day
- 8. Sell Side's Bond Locking
- 9. DVP Fund Settlement Request
- 13. Bond Delivery

- 9. DVP Fund Settlement request
- 12. DVP Fund Settlement Notice

PBOC （CNAPS）
- 10. Fund Transfer Processing

Buy Side

- 1. Trade
- 2. Trade Data
- 3. Trade Data
- 4. Settlement Instruction
- 5. Settlement Instruction Matching Notice
- 7. Settlement Executing Status Notice
- 14. Settlement Completion Notice
- 11. Fund Transfer Notice

CN Corporate 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) or Shanghai Clearing House (SHCH). CFETS also sends trade data to sell side and buy side.
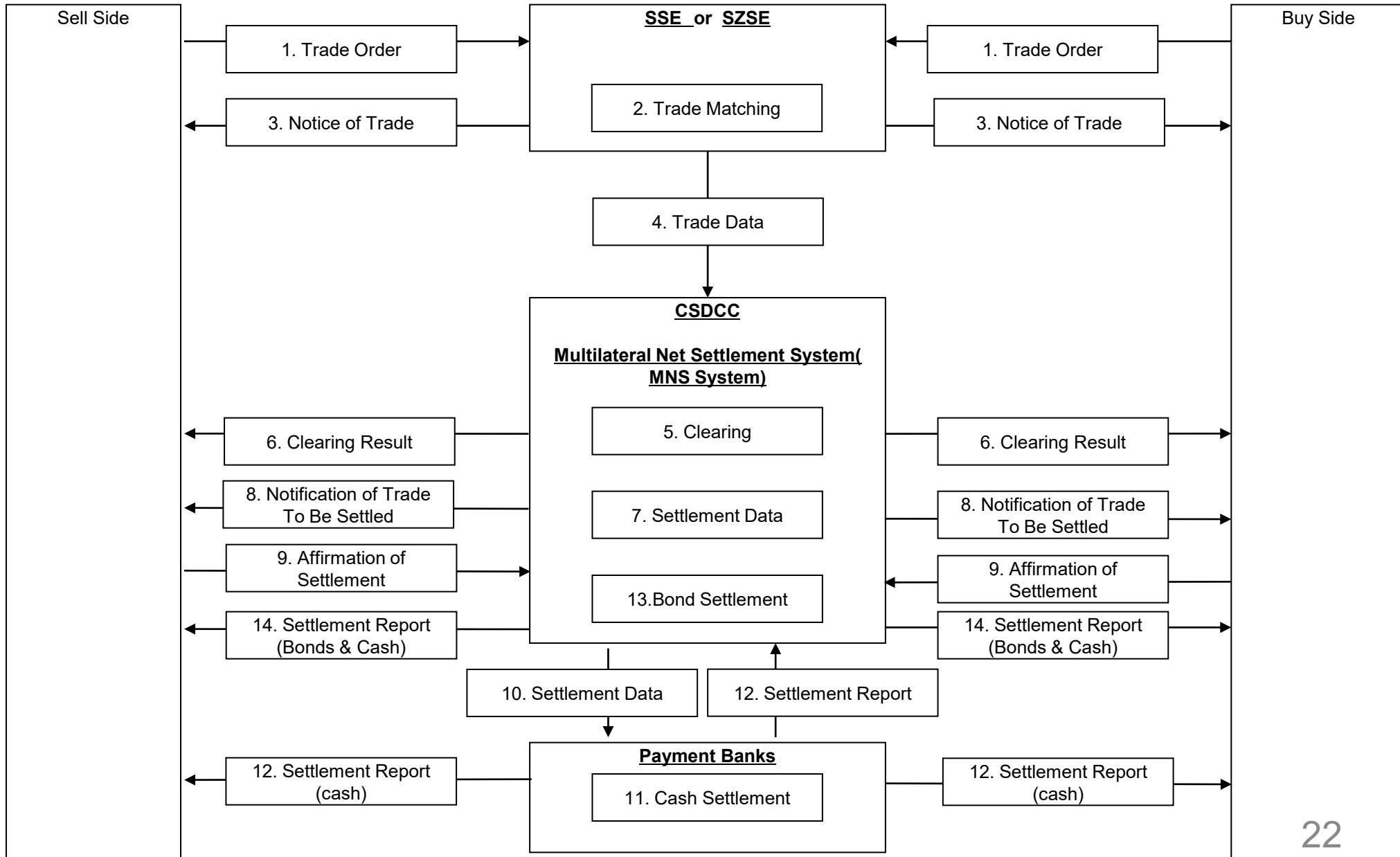3. CCDC or SHCH sends trade data to sell side and buy side for verification.
4. When sell side and buy side receive trade data from CCDC or SHCH, sell side and buy side verify the data. If the data are correct, sell side and buy side send affirmative message to CCDC. The messages are regarded as "settlement 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)

Sell Side

1. Trade	
2. Trade Data	

CFETS
1. Trade

2. Trade Data

SHCH
3. Novation

4. Netting

7. Send Trade Data after netting

8. Transfer of sell side's bonds to SHCH

10. Transfer of bonds from SHCH to buy side

12. Completing of Settlement

Buy Side

1. Trade

2. Trade Data

5. Notice Data of Netting

6. Affirmation

7. Settlement Executing Status Notice

12. Settlement Completion Notice

7. Data after netting by novation

11. Inform Completion of Tansfer

9. Inform Completion of Transfer

PBOC（CNAPS）
8. Fund Transfer from Buy Side to SHCH

10. Fund Transfer from SHCH to Sell Side

12. Fund Transfer Notice

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CN Corporate Bond Transaction Flow for Domestic Trades (OTC) SHCH

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 Shanghai Clearing House (SHCH) as CCP & CSD. CFTES 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)

Sell Side

1. Trade Order →

← 3. Notice of Trade

SSE or SZSE

2. Trade Matching

4. Trade Data

CSDCC
Multilateral Net Settlement System
(MNS System)

5. Clearing

7. Settlement Data

13. Bond Settlement

← 6. Clearing Result

← 8. Notification of Trade to be Settled

9. Affirmation of Settlement →

← 14. Settlement Report (Bonds & Cash)

10. Settlement Instruction

12. Settlement Report

Payment Banks

11. Cash Settlement

← 12. Settlement Report (cash)

Buy Side

← 1. Trade Order

3. Notice of Trade →

6. Clearing Result →

8. Notification of Trade to be Settled →

← 9. Affirmation of Settlement

14. Settlement Report (Bonds & Cash) →

12. Settlement Report (cash) →

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CN Corporate 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 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.

CN Interest Payment Flow of Government Bond OTC Market

CN Interest Payment Flow of Government Bond OTC Market

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

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

MOF

Bond Holder

3. Payment Request

6. Payment Instruction

4. Payment Instruction

2. Information Including Designated Bank a/c

1. Information Including Designated Bank a/c

13. Interest Payment Confirmation

CSDCC as CSD

5. Interest Payment Notification

CCDC as Paying Agent

9. Confirmation

Same Entity

CSDCC as Custodian

8. Confirmation

10. Payment Instruction

PBOC

MOF's Account

7. Cash Transfer

CCDC's Account

Commercial Bank

11. Interest Payment

CSDCC's Account

Cash Settlement Bank(SB)

12. Interest Payment

Bond Holder's Account

(No Tax for interest)

Tax Office

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CN Interest Payment Flow of Government 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 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 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

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

MOF

Bond Holder

2. Payment Request

3. Payment Instruction

5. Payment Instruction

1. Information Including Designated Bank a/c

12. Interest Payment Confirmation

CCDC as CSD

9. Redemption

4. Interest Payment Notification

Same Entity

Same Entity

CCDC as Paying Agent

CCDC as Custodian

7. Confirmation

8. Payment Instruction

PBOC

Cash Settlement Bank(SB)

MOF's Account

6. Cash Transfer

CCDC's Account

10. Interest Payment

SB's Account

11. Interest Payment

Bond Holder's Account

(No Tax for interest)

Tax Office

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CN Redemption Payment Flow of Government Bond OTC Market

Process of Redemption Payment

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.
12. Cash settlement banks notify bond holders of redemption payment.

CN Interest Payment Flow of Government Bond Exchange Market

Cash Flow →

Information Flow ⇢

Bond Issuer Side

CSD

Bond Holder Side

MOF

Bond Holder

CSDCC as CSD

10. Redemption

3. Payment Request

2. Information Including Designated Bank a/c

1. Information Including Designated Bank a/c

14. Interest Payment Confirmation

6. Payment Instruction

4. Payment Instruction

5. Interest Payment Notification

CCDC as Paying Agent

9. Confirmation

Same Entity

CSDCC as Custodian

8. Confirmation

11. Payment Instruction

PBOC

MOF's Account

7. Cash Transfer

CCDC's Account

Commercial Bank

12. Interest Payment

CSDCC's Account

Cash Settlement Bank(SB)

13. Interest Payment

Bond Holder's Account

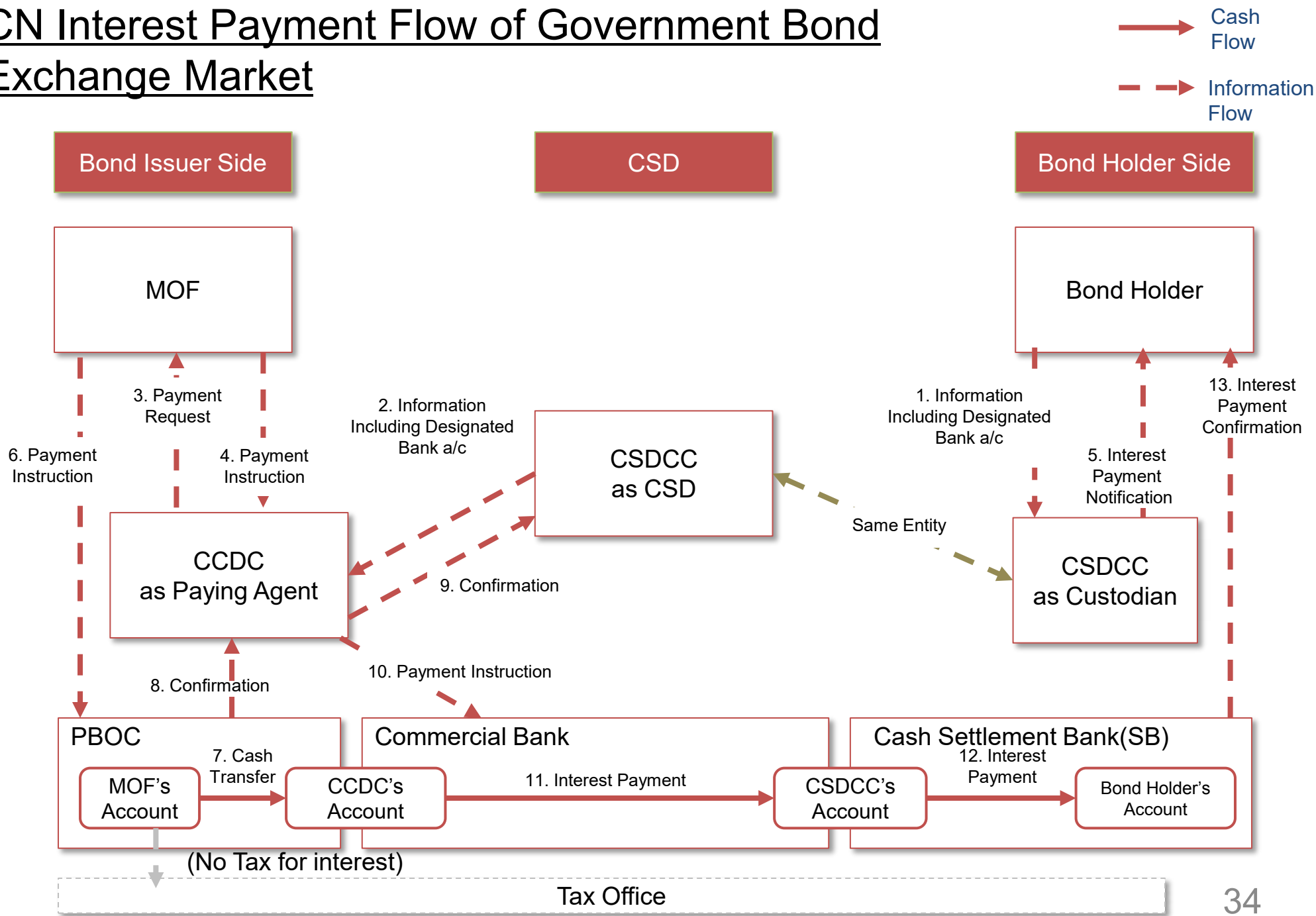(No Tax for interest)

Tax Office

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CN Redemption Payment Flow of Government Bond Exchange Market

Process of Redemption 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 redemption.
5. CSDCC as custodian notifies bond holders of redemption 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. CSDCC makes bond redemption.
11. 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.
12. Commercial bank transfers cash from CCDC's account to cash CSDCC's accounts with detailed instructions.
13. Commercial banks credit bond holders' accounts with redemption.
14. Commercial banks notify bond holders of redemption payment.

CN Interest Payment Flow of Corporate Bond OTC Market

Legend:
- → Cash Flow
- --→ Information Flow

Bond Issuer Side

Bond Issuer

CCDC/SHCH as Paying Agent

CSD

CCDC/SHCH as CSD

Bond Holder Side

Bond Holder

CCDC/SHCH as Custodian

2. Payment Request

3. Payment Instruction

5. Payment Instruction

Same Entity

Same Entity

1. Information Including Designated Bank a/c

4. Interest Payment Notification

11. Interest Payment Confirmation

8. Payment Instruction

7. Confirmation

Issuer's Designated Bank

Issuer's Account

.6. Cash Transfer

CCDC/SHCH's Account

PBOC

9. Interest Payment

SB's Account

Cash Settlement Bank(SB)

10. Interest Payment
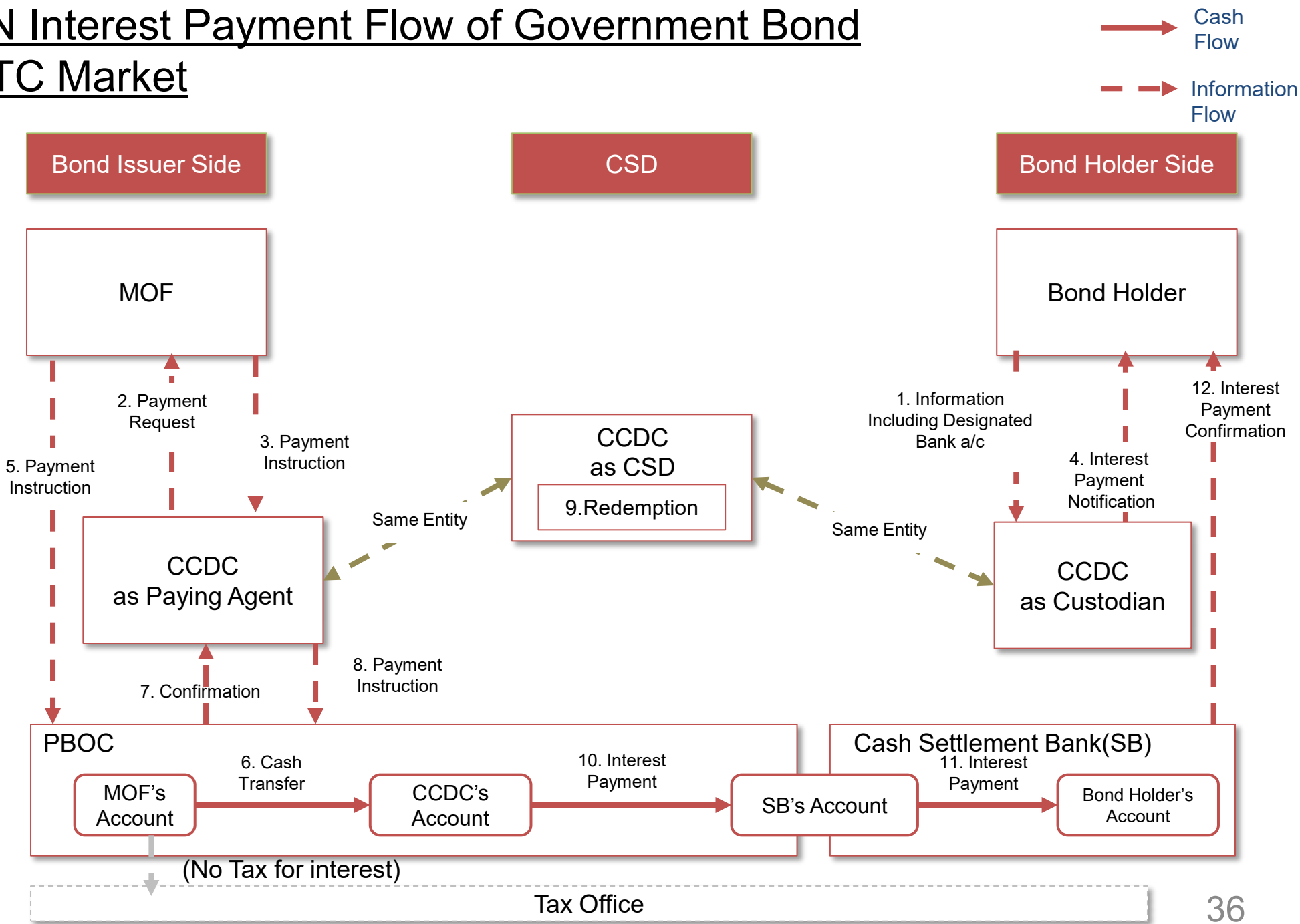
Bond Holder's Account

12. Tax Payment

Tax Office

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CN Interest Payment Flow of Corporate Bond OTC Market

Process of Interest 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 it's 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.
    1. Cash settlement banks credit bond holders' accounts with interest.
10. Cash settlement banks notify bond holders of interest payment.
11. Bond holders pay tax to tax office.

CN Interest Payment Flow of Corporate Bond Exchange Market

Legend:
- → Cash Flow
- ⇢ Information Flow

Bond Issuer Side

Bond Issuer

2. Payment Request

3. Payment Instruction

5. Payment Instruction

CSD

CSDCC as CSD

Same Entity

CSDCC as Paying Agent

8. Payment Instruction

7. Confirmation

Bond Holder Side

Bond Holder

1. Information Including Designated Bank a/c

10. Interest Payment Confirmation

4. Interest Payment Notification

Same Entity

CSDCC as Custodian

Issuer's Designated Bank

Issuer's Account

.6. Cash Transfer

Cash Settlement Bank(SB)

CSDCC's Account

9.Interest Payment

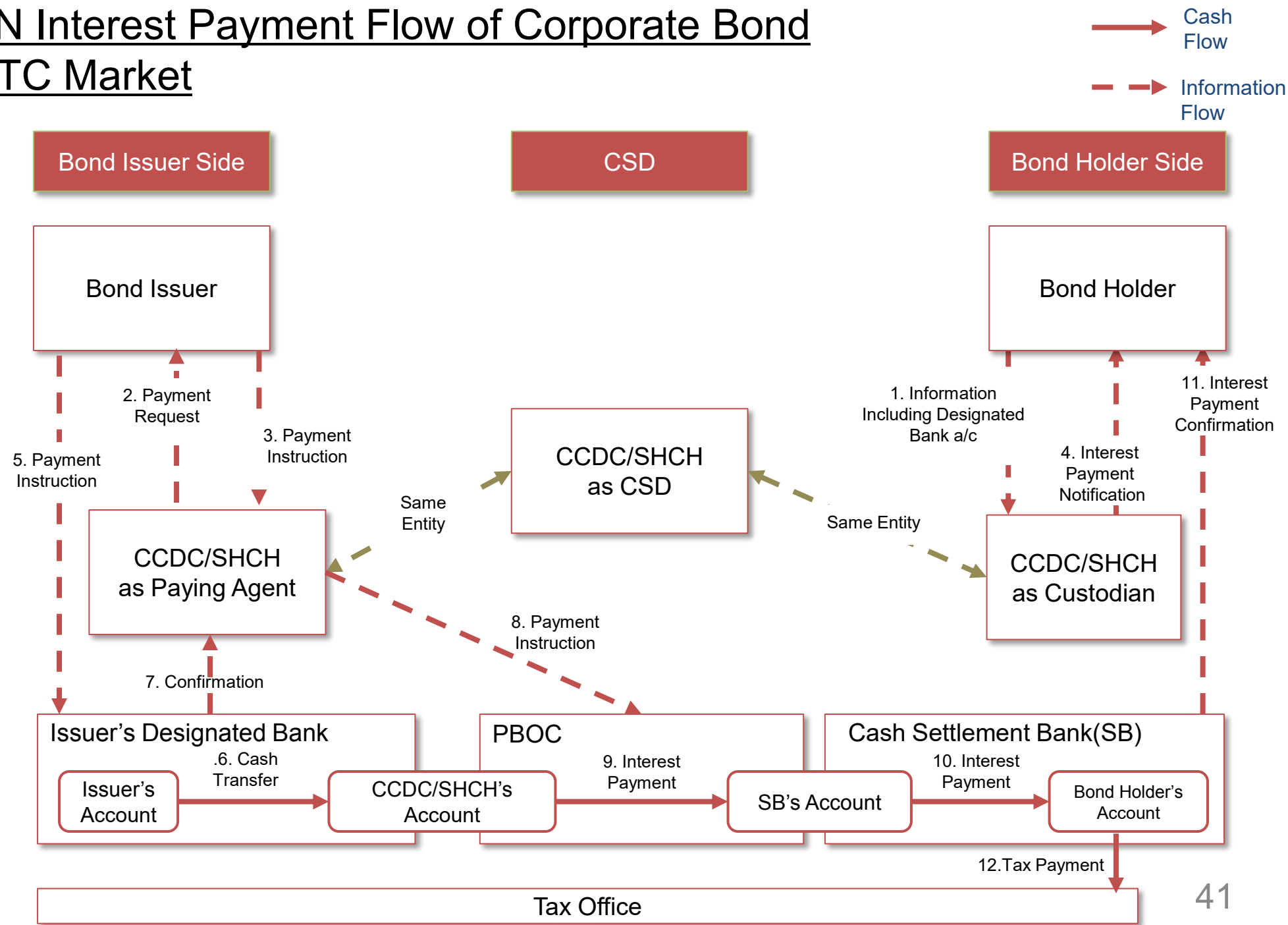Bond Holder's Account

11.Tax Payment

Tax Office

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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 it's 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

Legend:
- → Cash Flow
- ⇢ Information Flow

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

Bond Holder

CCDC/SHCH as CSD
10. Redemption

CCDC/SHCH as Paying Agent

CCDC/SHCH as Custodian

Same Entity

Same Entity

1. Information Including Designated Bank a/c

2. Payment Request

3. Payment Instruction

4. Interest Payment Notification

5. Payment Instruction

12. Interest Payment Confirmation

7. Confirmation

8. Payment Instruction

Issuer's Designated Bank

PBOC

Cash Settlement Bank(SB)

Issuer's Account

.6. Cash Transfer

CCDC/SHCH's Account

9. Interest Payment

SB's Account

11. Interest Payment

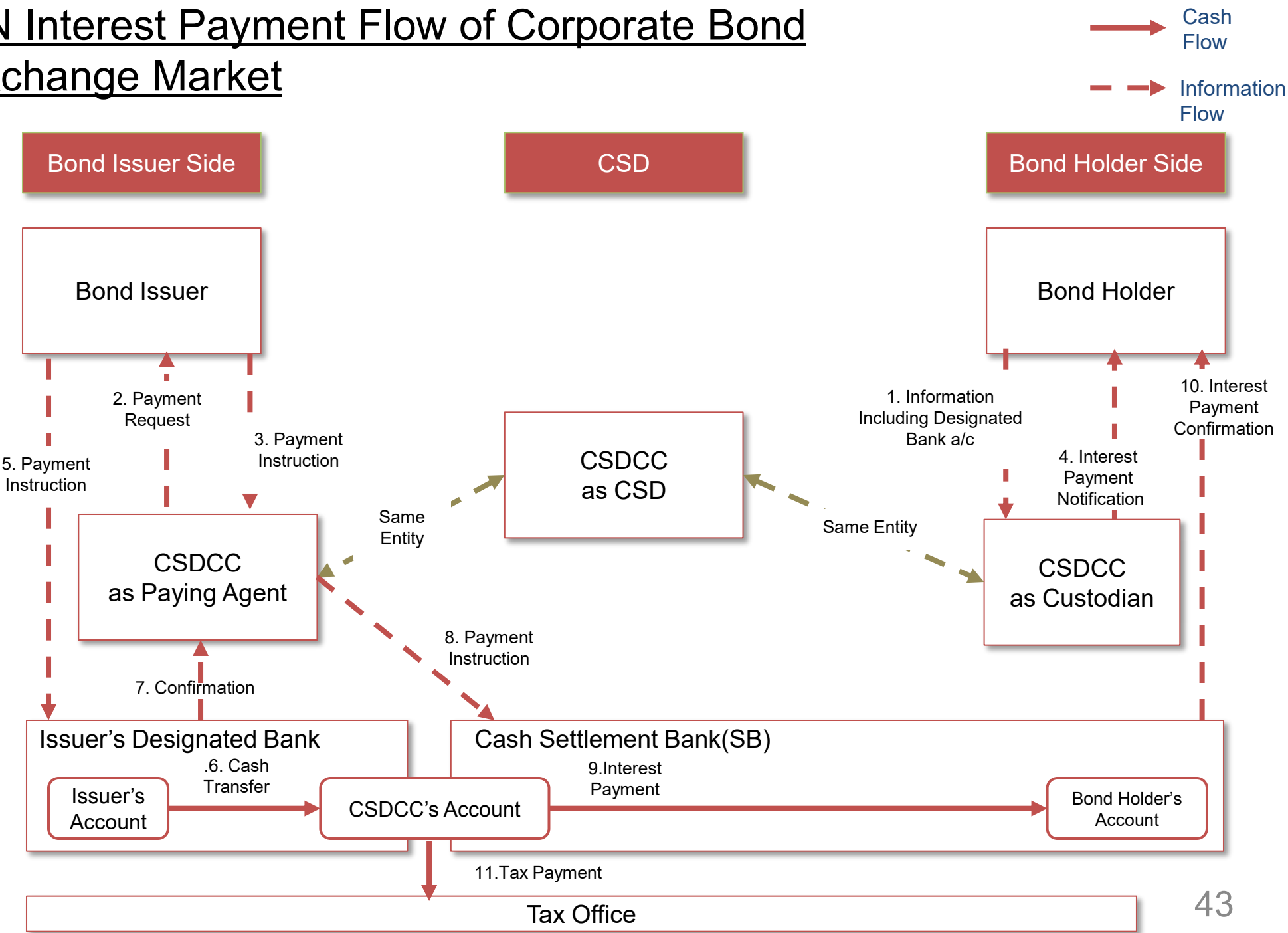Bond Holder's Account

13. Tax Payment

Tax Office

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CN Redemption Payment Flow of Corporate Bond OTC Market

Process of Redemption 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 it's 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.
12. Cash settlement banks notify bond holders of redemption payment.
13. Bond holders pay tax to tax office.

CN Interest Payment Flow of Corporate Bond Exchange Market

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

Bond Holder

CSDCC as CSD

10. Redemption

2. Payment Request

3. Payment Instruction

5. Payment Instruction

1. Information Including Designated Bank a/c

11. Interest Payment Confirmation

4. Interest Payment Notification

CSDCC as Paying Agent

Same Entity

Same Entity

CSDCC as Custodian

8. Payment Instruction

7. Confirmation

Issuer's Designated Bank

Cash Settlement Bank(SB)

.6. Cash Transfer

Issuer's Account

CSDCC's Account

9. Interest Payment

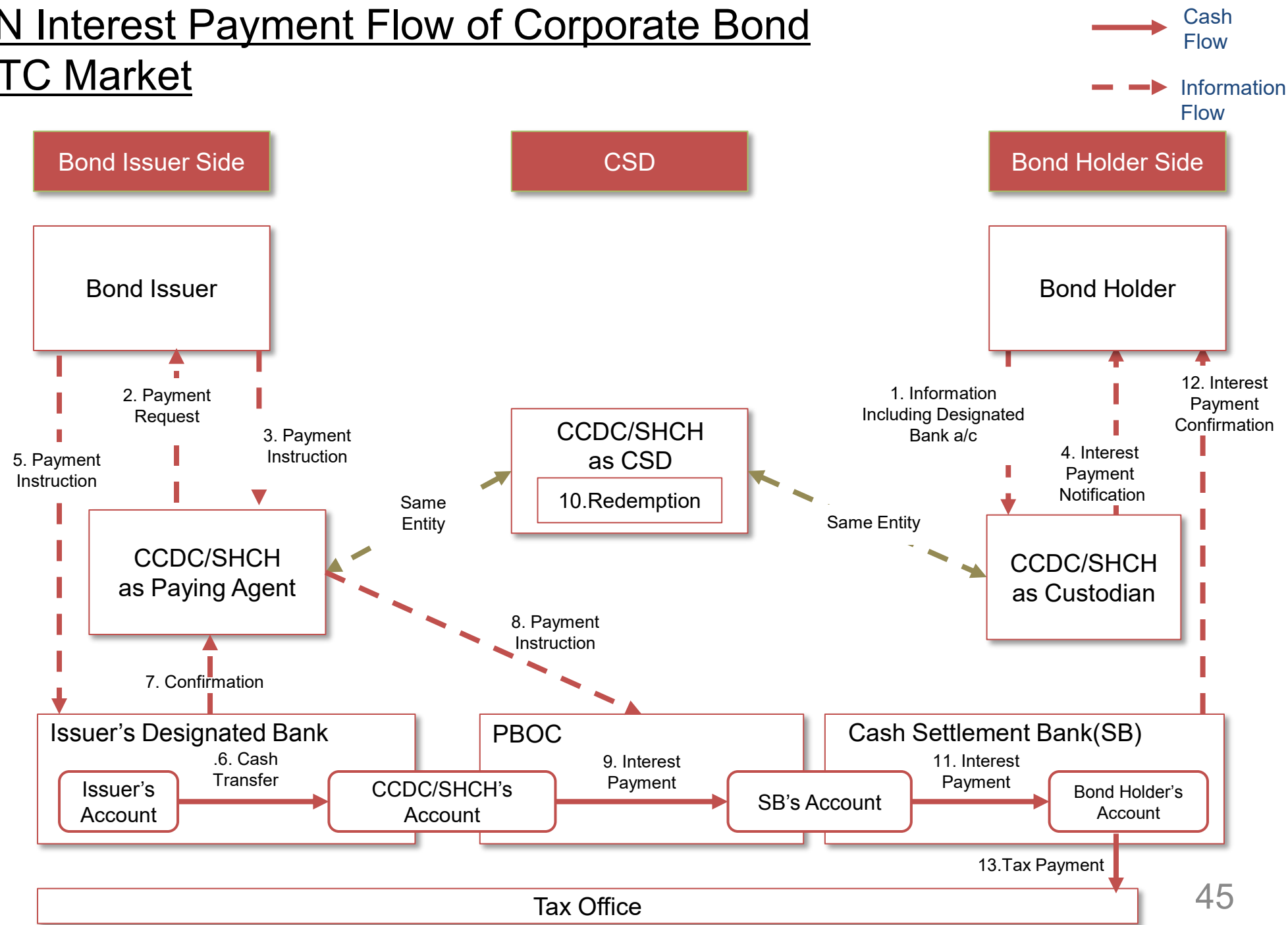Bond Holder's Account

12. Tax Payment

Tax Office

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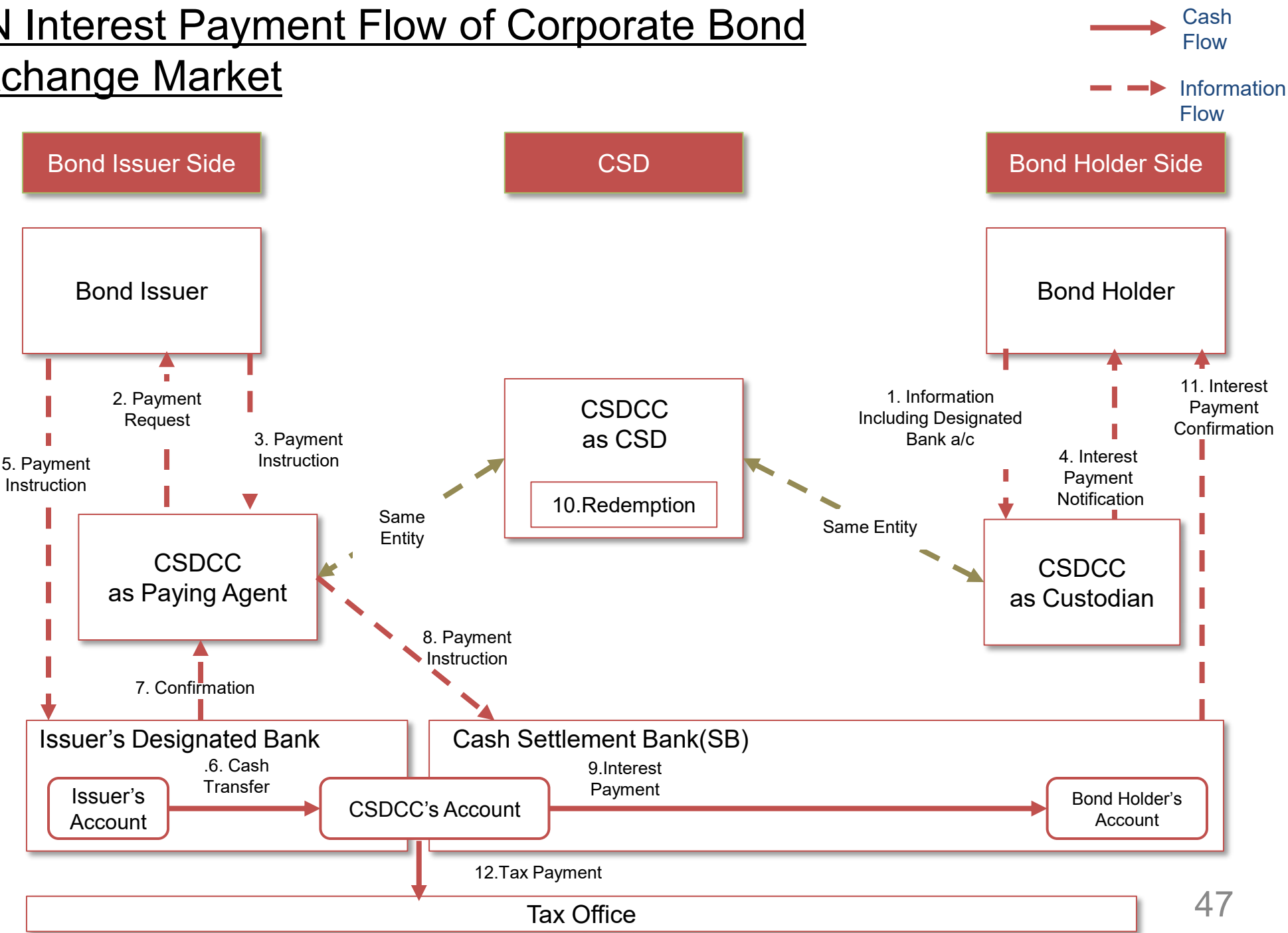
CN Redemption Payment Flow of Corporate Bond Exchange Market

Process of Redemption 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 notifies bond holders of interest payment.
5. Bond issuer instructs it's 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.

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

BOC HK, RMB Settlement Banks (HK, Macau)

Cross-Border

Authorised Broker

or Bank

Optional

CFETS

Trading

Clearing

Settlement Agent (Custodian)

As Cash Correspondent

CCDC

Matching & Settlement

PBOC CNAPS

Cash Settlement

As own banker

1 Trade Order

2 Trade Execution

3 Trade Confirmation

4 Trade Confirmation

5 Trade Confirmation

6 Advice of Settlement Details

7 Settlement Instruction

10 Confirmation of Settlement Details

12 Settlement Confirmation

13 Settlement Confirmation

14 Securities Statement

8 Remittance of Funds

9 Funding of PBOC Account

11 Confirmation of Debit/Credit

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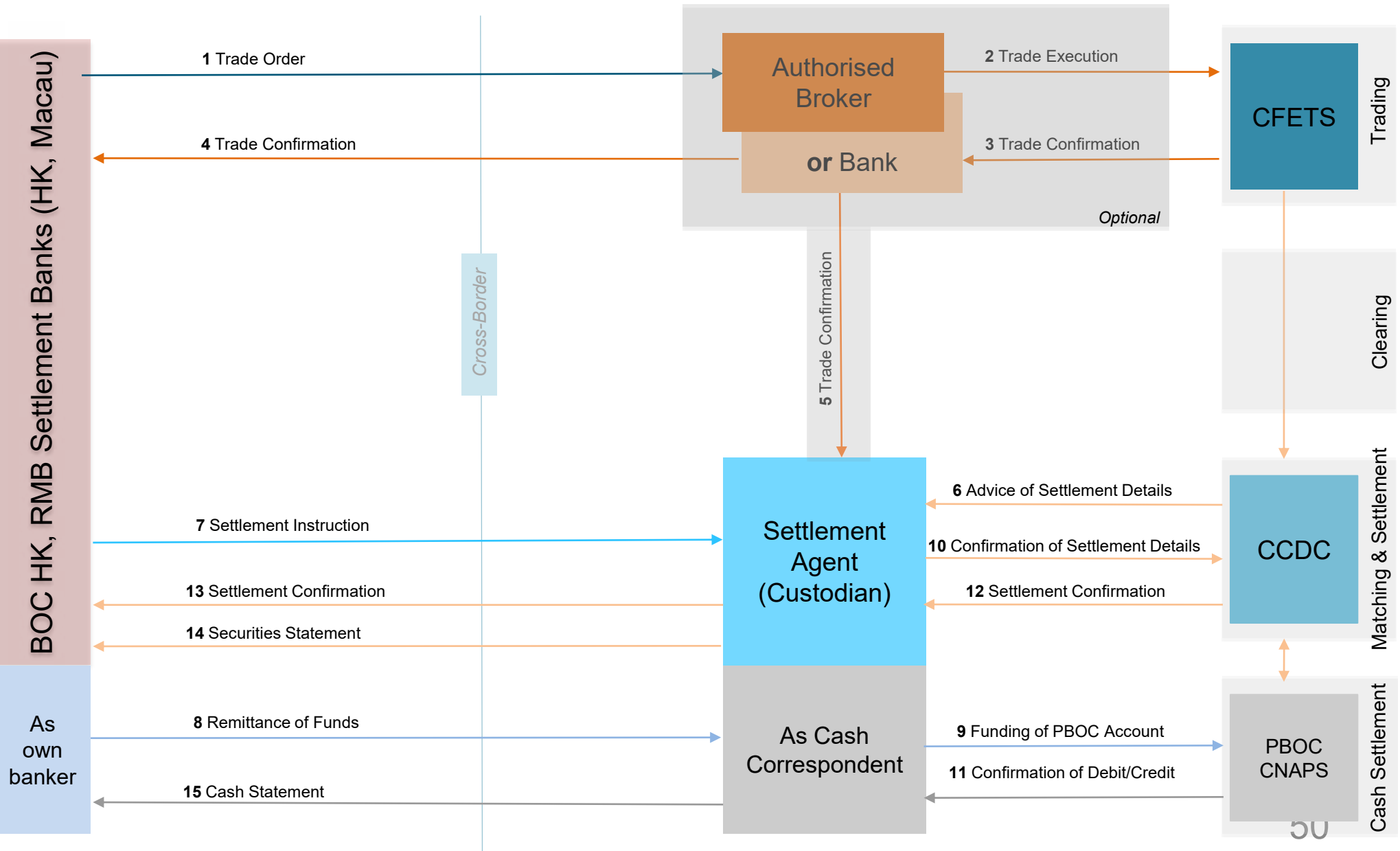
CN Bond Transaction Flow for Foreign Investors
OTC Market / RMB Banks

Trade Date

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

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
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)

2 Trade Order

5 Trade Confirmation

Designated QFII Broker

3 Trade Execution

4 Trade Confirmation

SSE or SZSE — Trading

1 Cash Projection Report

5 Trade Confirmation

Cross-Border

CSDCC (CCP) — Clearing

6 Report on Trade Obligations

Global Custodian

9 Status Update or Confirmation

10 Settlement Instruction

11 Settlement Instruction

14 Settlement Confirm

13 Settlement Confirmation

16 Securities Statement

QFII Custodian

(7 Correction of Transaction Details)

8 Bond Transfer Confirmation

CSDCC — Matching & Settlement

In capacity as Global Custodian

18 Cash Statement

17 Cash Statement

Cash Correspondent

12 Funding via Nostro Account

15 Confirmation of Debit/Credit

Designated Payment Bank — Cash Settlement

CN Bond Transaction Flow for Foreign Investors Exchange Market / QFII

Trade Date

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

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)

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

HK Government Bond Market Infrastructure Diagram
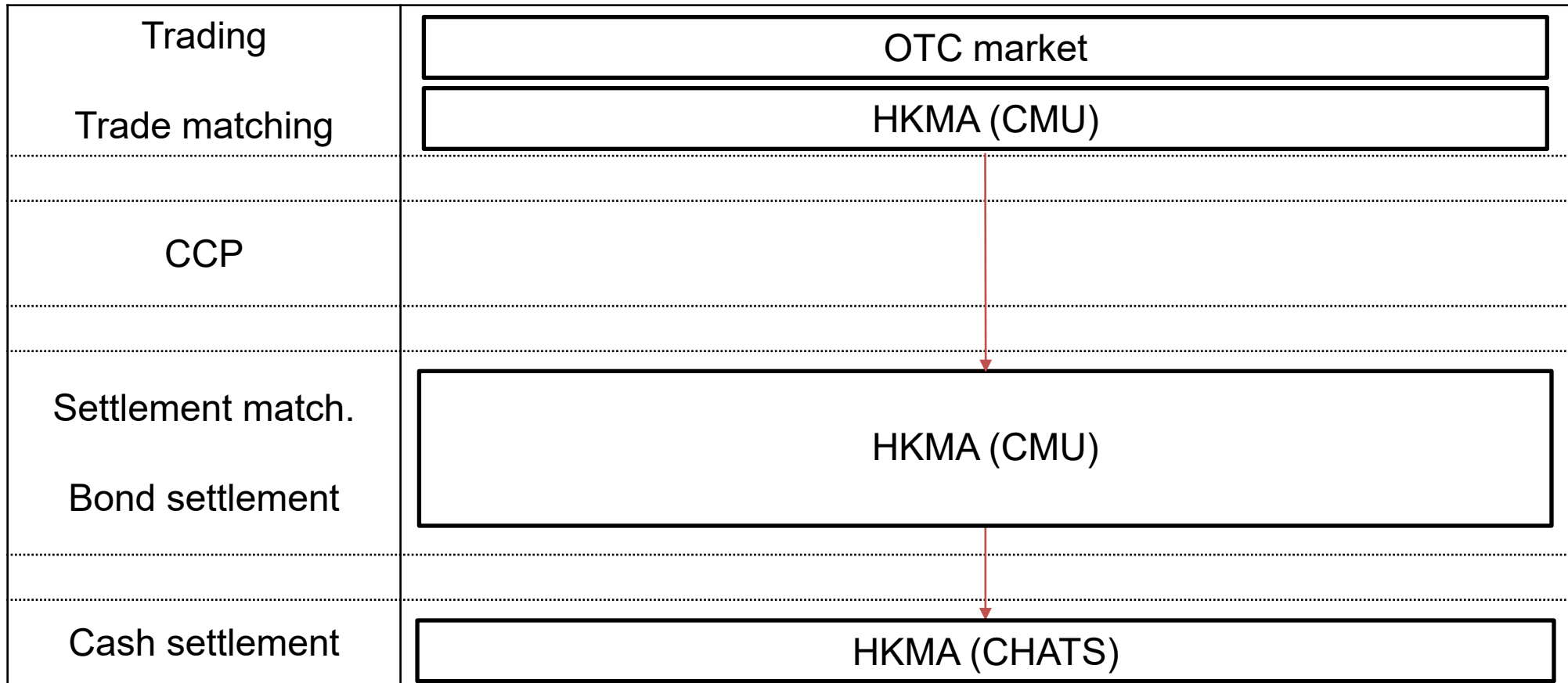
Trading	OTC market
Trade matching	HKMA (CMU)
CCP	
Settlement match. **Bond settlement**	HKMA (CMU)
Cash settlement	HKMA (CHATS)

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

Trading	OTC market
Trade matching	HKMA (CMU)
CCP	
Settlement match. Bond settlement	HKMA (CMU)
Cash settlement	HKMA (CHATS)

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 Government Bond Transaction Flow for Domestic Trades

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HK Government 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 the buy side and sell side respectively, while CMU sends securities settlement confirmation to the sell side and buy side.

HK Corporate Bond Transaction Flow for Domestic Trades

Sell Side | 1. Trade | Buy Side

HKMA

(CMU)

- 2. Settlement Instruction
- 2. Settlement Instruction
- 3. Validation and Matching
- 4. Matching Result
- 4. Matching Result
- 5. Holding bond
- 9. Bond Settlement
- 10. Settlement Confirmation
- 10. Settlement Confirmation
- 6. Settlement data
- 8. Settlement Report (Cash)

(CHATS)

- 7. Cash Settlement
- 10. Settlement Report (Cash)
- 10. Settlement Report (Cash)

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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.

HK Interest Payment Flow of Government Bond OTC Market

Cash Flow →

Information Flow ⇢

Bond Issuer Side

CSD

Bond Holder Side

Treasury Department

Bond Holder

1. Payment Request

2. Payment Instruction

Same Entity (No Confirmation Necessary)

CMU as CSD

8. Interest Payment Confirmation

HKMA as Paying Agent

3. Notification of Payment Details

6. Settlement Report

Account Management Institutions (CMU member)

Same Entity

Same Entity

HKMA(CHATS)

CMU member

TD's Account

4. Interest Payment

HKMA's Account

5. Interest Payment

CMU member's Account

7. Interest Payment

Bond Holder's Account

(No Tax Payment)

Tax Office
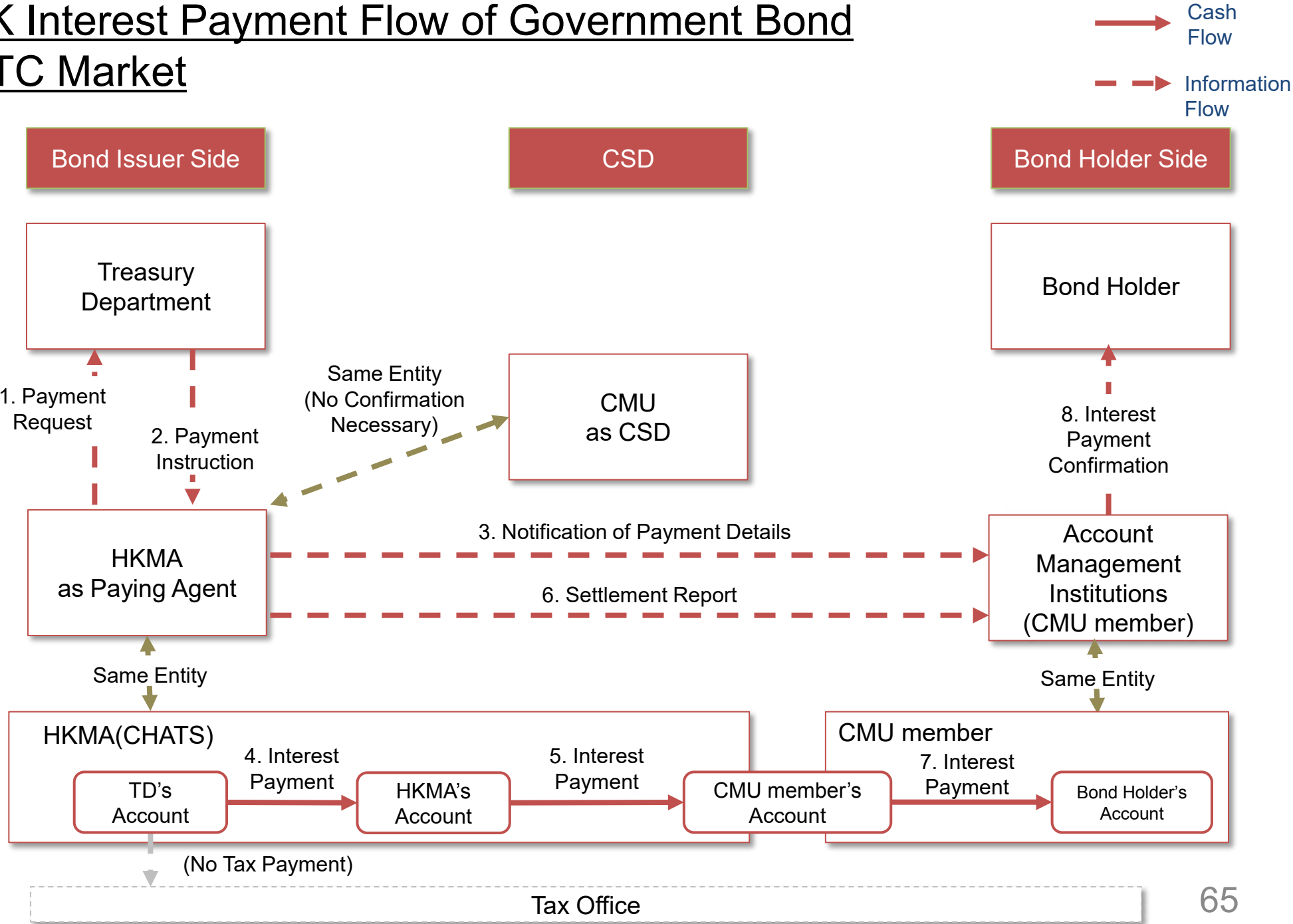
HK Interest Payment Flow of Government Bond

Process of Interest Payment

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 it's 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

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

Treasury Department

CMU as CSD

7.Redemption

Bond Holder

1. Payment Request

2. Payment Instruction

Same Entity (No Confirmation Necessary)

9. Redemption Payment Confirmation

HKMA as Paying Agent

3. Notification of Payment Details

6. Settlement Report

Account Management Institutions (CMU member)

Same Entity

Same Entity

HKMA(CHATS)

CMU member

Treasury's Account

4. Redemption Payment

HKMA's Account

5. Redemption Payment

CMU member's Account

8. Redemption Payment

Bond Holder's Account

(No Tax Payment)

Tax Office

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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 it's 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.

HK Interest Payment Flow of Corporate Bond

Legend:
→ Cash Flow
⇢ Information Flow

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

HKMA (CMU) as CSD

Bond Holder

1. Payment Notification

4. Payment Instruction

2. Account Positions Report

3. Notification of Eligible Positions

9. Interest Payment Confirmation

Paying Agent

Account Management Institution (CMU Member)

Same Entity

6. Payment Instruction

Same Entity

Paying Agent

HKMA(CHATS)

CMU Member

Issuer's Account

.5 Cash Transfer

PA's Account

7. Interest Payment

CMU member's Account

8. Interest Payment

Bond Holder's Account

(No Tax Payment)

Tax Office

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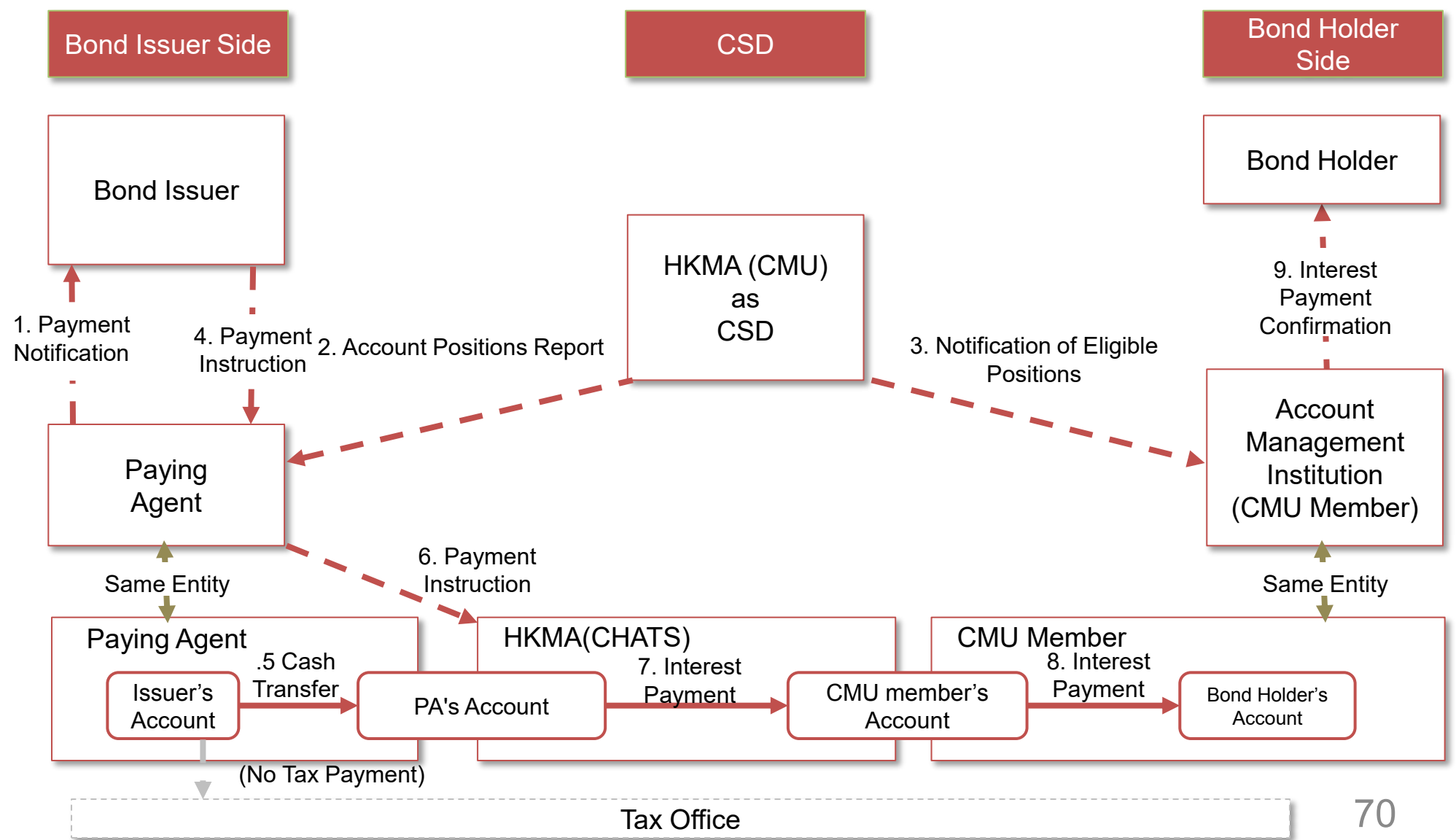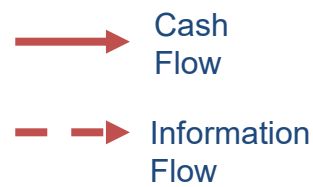
HK Interest Payment Flow of Corporate Bond

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 it's paying agent to make interest payment.
5. Paying agent transfers cash from issuer's account to it's 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

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

HKMA (CMU) as CSD

8.Redemption

Bond Holder

1. Payment Notification

4. Payment Instruction

2. Account Positions Report

3. Notification of Eligible Positions

10. Redemption Payment Confirmation

Paying Agent

Account Management Institution (CMU Member)

Same Entity

6. Payment Instruction

Same Entity

Paying Agent

Issuer's Account

.5 Cash Transfer

HKMA(CHATS)

PA's Account

7. Redemption Payment

CMU member's Account

CMU Member

9. Redemption Payment

Bond Holder's Account

(No Tax Payment)

Tax Office

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HK Redemption Payment Flow of Corporate Bond

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 it's paying agent to make redemption payment.
5. Paying agent transfers cash from issuer's account to it's 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.

HK Bond Transaction Flow for Foreign Investors OTC Market / DVP

Foreign Institutional Investor (direct or Investment Manager)

International Broker

Domestic Broker **or** Bank

Counter-party

Global Custodian

As Cash Correspondent

Domestic Custodian

As Cash Correspondent

HKMA CMU

HKMA CHATS

Cross-Border

Trading
Clearing
Matching & Settlement
Cash Settlement

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

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HK 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)

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Indonesia (ID)

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)

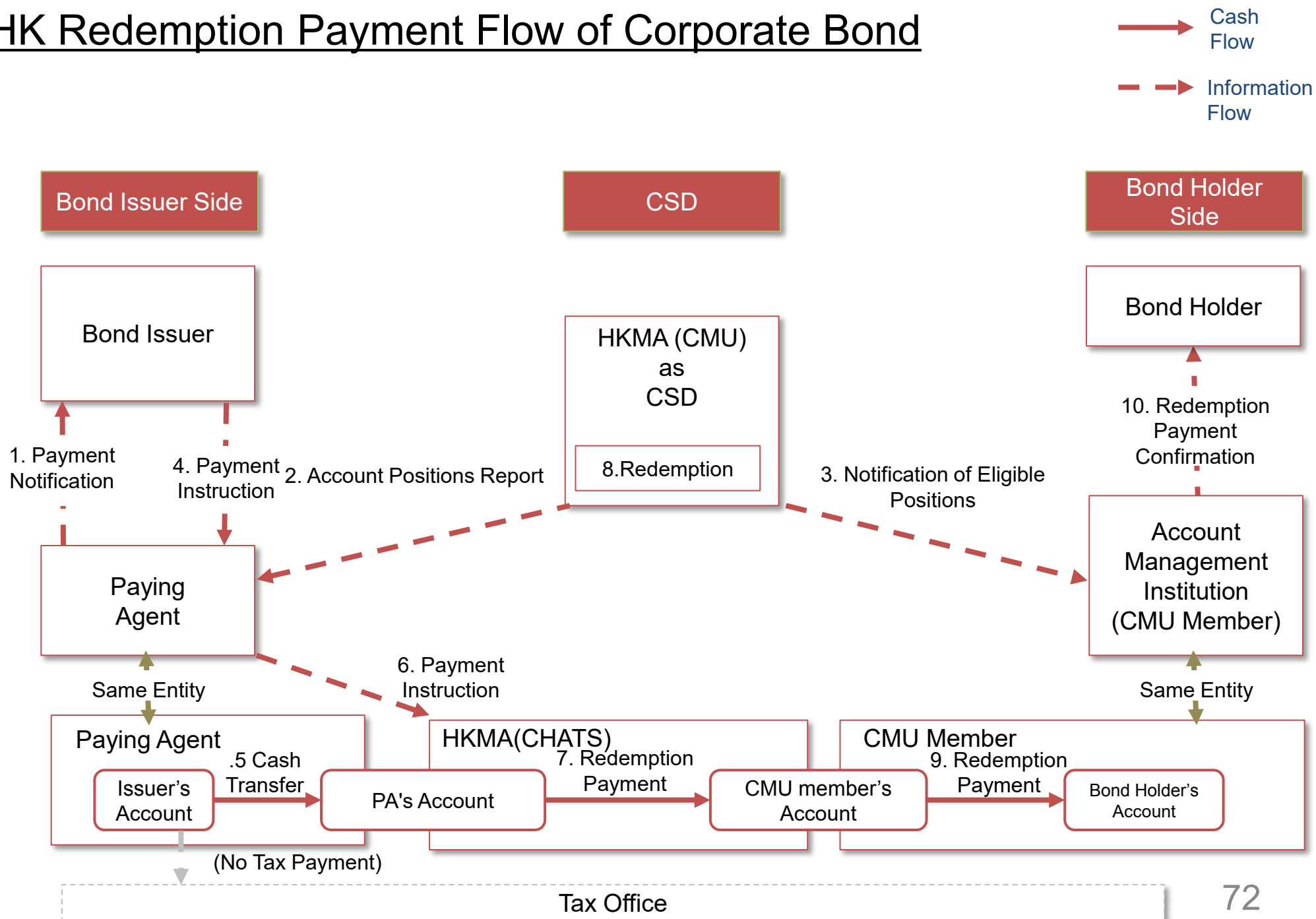6. Bond Transaction Flow for Foreign Investors

ID Government Bond Market Infrastructure Diagram
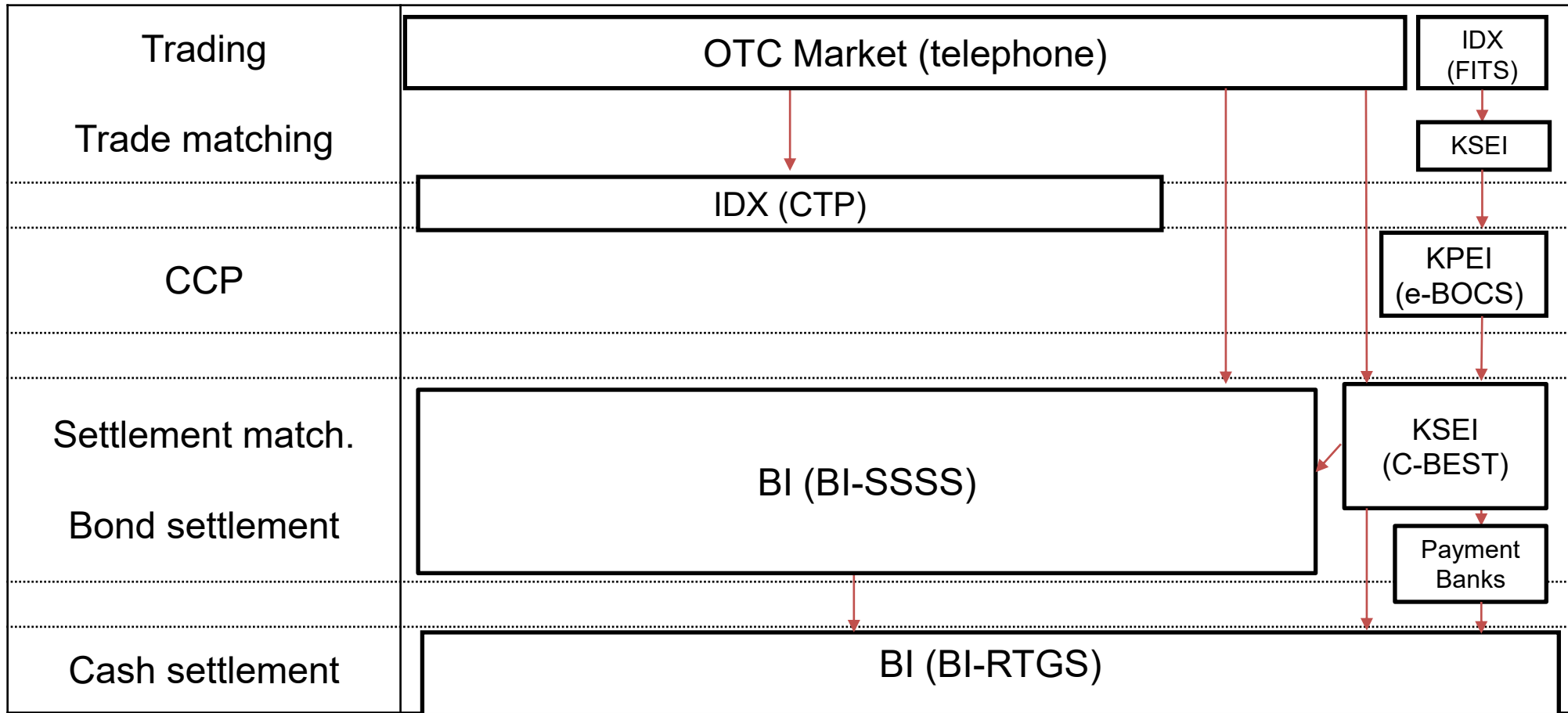
Trading	OTC Market (telephone)	IDX (FITS)
Trade matching		KSEI
	IDX (CTP)	
CCP		KPEI (e-BOCS)
Settlement match.	BI (BI-SSSS)	KSEI (C-BEST)
Bond settlement		Payment Banks
Cash settlement	BI (BI-RTGS)	

IDX – Indonesian Stock Exchange   FITS - Fixed-Income Trading System CTP – Centralized Trading Platform KSEI – Indonesian Central Securities Depository   KPEI – Indonesia Clearing and guarantee Corporation   BI – Bank Indonesia

e-BOCS – Electronic Bond Clearing System C-BEST – Central Depositary and Book Entry Settlement BI-SSSS – Bank Indonesia Scripless Securities Settlement System

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ID Corporate Bond Market Infrastructure Diagram
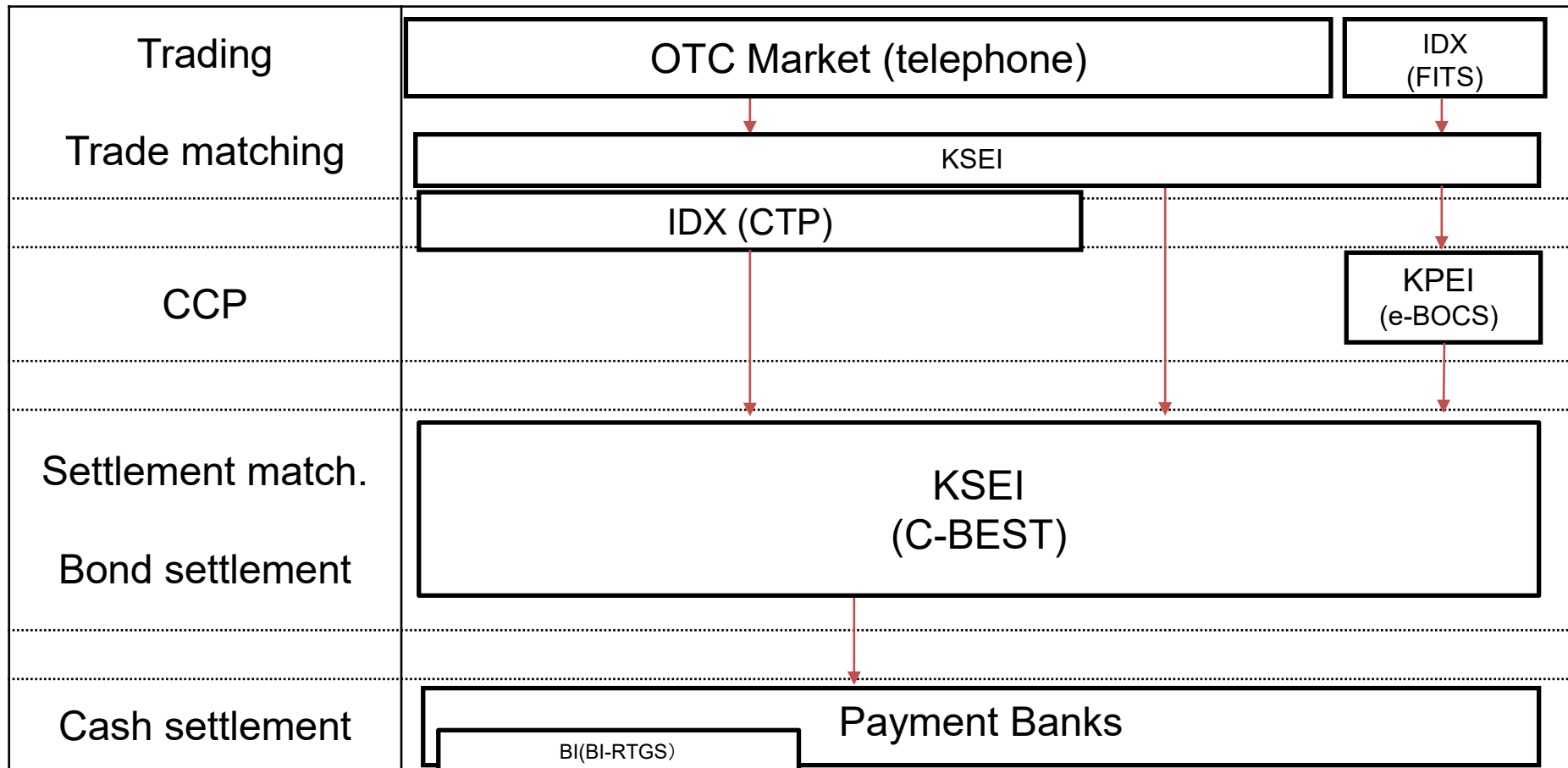
Trading	OTC Market (telephone)	IDX (FITS)
Trade matching	KSEI	
	IDX (CTP)	
CCP		KPEI (e-BOCS)
Settlement match. / Bond settlement	KSEI (C-BEST)	
Cash settlement	Payment Banks / BI(BI-RTGS)	

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 Depositary and Book Entry Settlement

ID Government Bond Transaction Flow for Domestic Trades

Sell side

Buy Side

1.Trade (Telephone/ Bloomberg/ Reuters)

Sell Side/ Sell Side's Sub Registry

Buy Side/ Buy Side's Sub Registry

2.Pre-Settlement Matching (Telephone/ SWIFT)

3. OTC Trade Reporting Requirement

3. OTC Trade Reporting Requirement

IDX (CTP)

4. Code Numbering

5. Report Reference Code

5. Report Reference Code

BI

(BI-SSSS)

6. DVP Instruction

6. RVP Instruction

7. Matching DVP

8. Matching Result

8. Matching Result

9. Earmark Bond

14. Bond Settlement

15. Settlement Statement

15. Settlement Statement

10. Payment Message

13. Irrevocable Debit/ Credit

11. Cash Settlement

12. Cash Settlement Statement

12. Cash Settlement Statement

(BI-RTGS)

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ID Government Bond Transaction Flow for Domestic Trades

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.

ID Corporate Bond Transaction Flow for Domestic Trades (OTC)

Sell Side	1.Trade (Telephone/ Bloomberg etc.)	**Buy Side**
Sell Side/ Sell Side's Sub Registry	2.Pre-Settlement Matching (C-BEST /Telephone etc.)	**Buy Side/ Buy Side's Sub Registry**

3. OTC Trade Reporting Requirement

IDX (CTP)

4. Code Numbering

3. OTC Trade Reporting Requirement

5. Report Reference Code

5. Report Reference Code

6. Cash Transfer Instruction to KSEI a/c

Payment Banks

7. Buy side cash is transferred to KSEI a/c

18. Sell side cash is transferred from KSEI a/c to sell side a/c

8. Cash Payment Message

19. Cash a/c Information

8. Cash Payment Message

KSEI (C-BEST)

9. Credit buy side a/c

10. Bond Settlement Instruction

11. Settlement Matching

10. Bond Settlement Instruction

13. Matching Result

13. Check balance of buy side a/c(cash) and sell side a/c (bond)

12. Matching Result

15. Settlement Statement

14. Bond Settlement

15. Settlement Statement

16. Cash Transfer Instruction from KSEI a/c to sell side a/c

17. Cash Transfer

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ID Corporate Bond Transaction Flow for Domestic Trades

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-email 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.

ID Corporate Bond Transaction Flow for Domestic Trades

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.

ID Interest Payment Flow of Government Bond

Legend:
- → Cash Flow
- ⇢ Information Flow

Bond Issuer Side | **CSD** | **Bond Holder Side**

- MOF
- 1. Payment Information
- 2. Payment Instruction
- Same Entity (No Confirmation Necessary)
- BI-SSSS as CSD
- BI As Paying Agent
- Bond Holder
- 6. Interest Payment Notice
- BI-SSSS Participants including Sub-registries
- Same Entity
- BI(BI-SOSA)
- Does the payment go through BI's account?
- MOF's Account
- 3. Interest Payment
- BI(BI-RTGS)
- BI's Account
- 4. Interest Payment
- Participant's Account
- 5. Interest Payment
- BI-SSSS Participant
- Same Entity
- Bond Holder's Account
- 7. Tax Payment
- Tax Office

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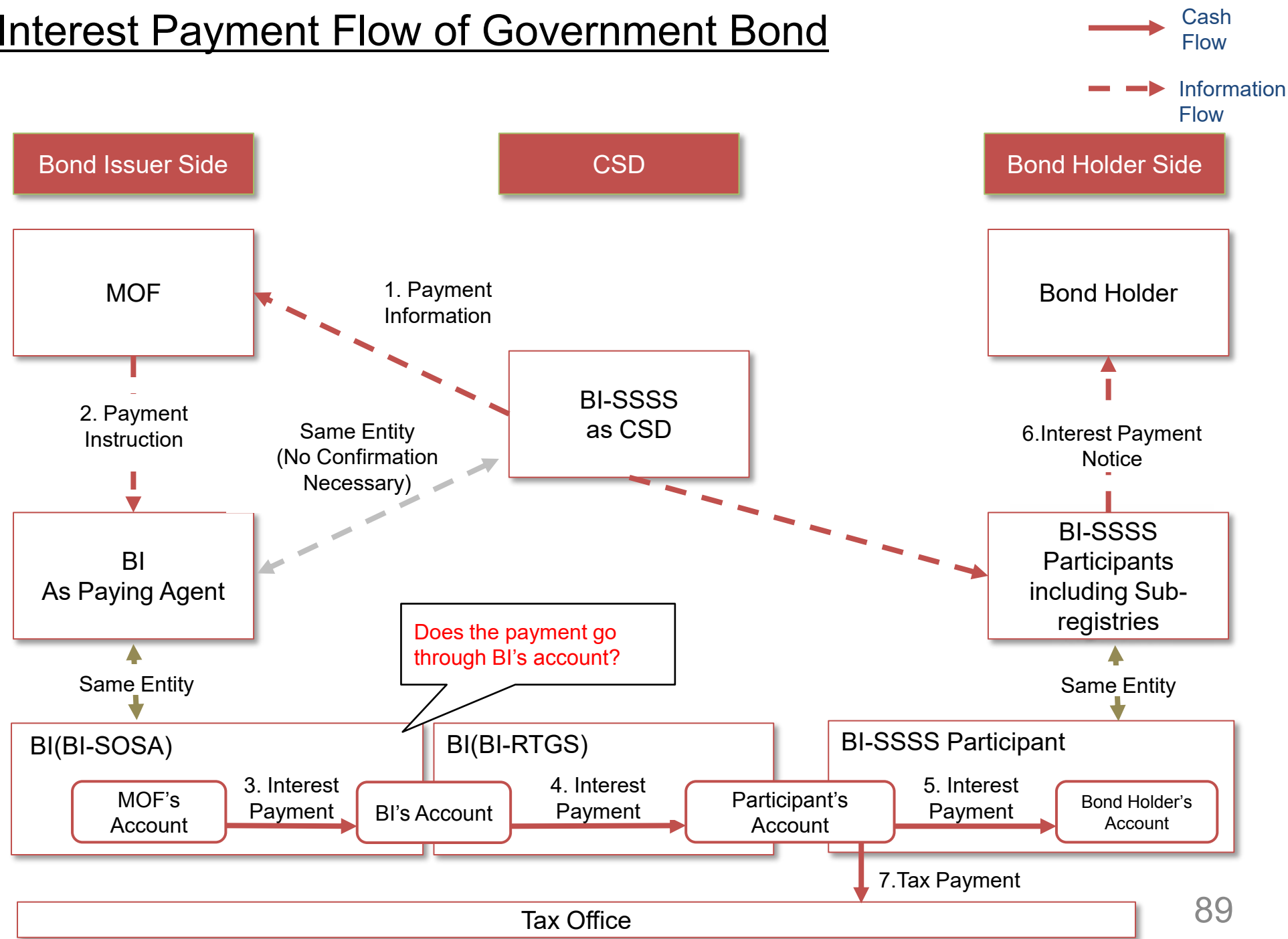
ID Interest Payment Flow of Government Bond

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

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

MOF

1. Payment Information

BI-SSSS as CSD

5.Redemption

Bond Holder

2. Payment Instruction

Same Entity (No Confirmation Necessary)

7.Redemption Payment Notice

BI As Paying Agent

BI-SSSS Participants including Sub-registries

Same Entity

Does the payment go through BI's account?

Same Entity

BI(BI-SOSA)

3.Redepmtion Payment

BI(BI-RTGS)

BI-SSSS Participant

MOF's Account

BI's Account

4.Redepmtion Payment

Participant's Account

6.Redemption Payment

Bond Holder's Account

8.Tax Payment

Tax Office

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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-SSSS participant including sub-registries.
5. BI makes bond redemption.
6. BI-SSSS participants credit bond holders' account with redemption.
7. BI-SSSS participants notify bond holder of redemption payment.
8. BI-SSSS participants pay income tax and capital gain tax to tax office.

※ BI-SSSS : Bank Indonesia Scripless Securities Settlement System

ID Interest Payment Flow of Corporate Bond

Cash Flow →

Information Flow ⇢

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

Bond Holder

3. On RD+1, List of Bondholders

13.Interest Payment Confirmation and DGT

2. On RD+1, Member Entitlement
1.Announcement

KSEI as CSD

5.DGT Forms*

12.Interest Payment Notice

6.On PD-1, Payment Instruction

2. On RD+1, Member Entitlement

4. Tax Docs* (DGT Forms)

16.Proof of Tax Payment

Custodian

8.Payment Confirmation

9.On PD. Payment Instruction

Same Entity

KSEI's Payment Banks

Issuer's Account

7. Cash Transfer

KSEI's Account

10. Interest Payment

Custodian

Custodian's Account

11.Interest Payment

Bond Holder's Account

15.Tax Docs

14.Tax Payment

Tax Office

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*only if the foreign investors would like to enjoy the tax treaty benefits
DGT: Double Taxation Convention
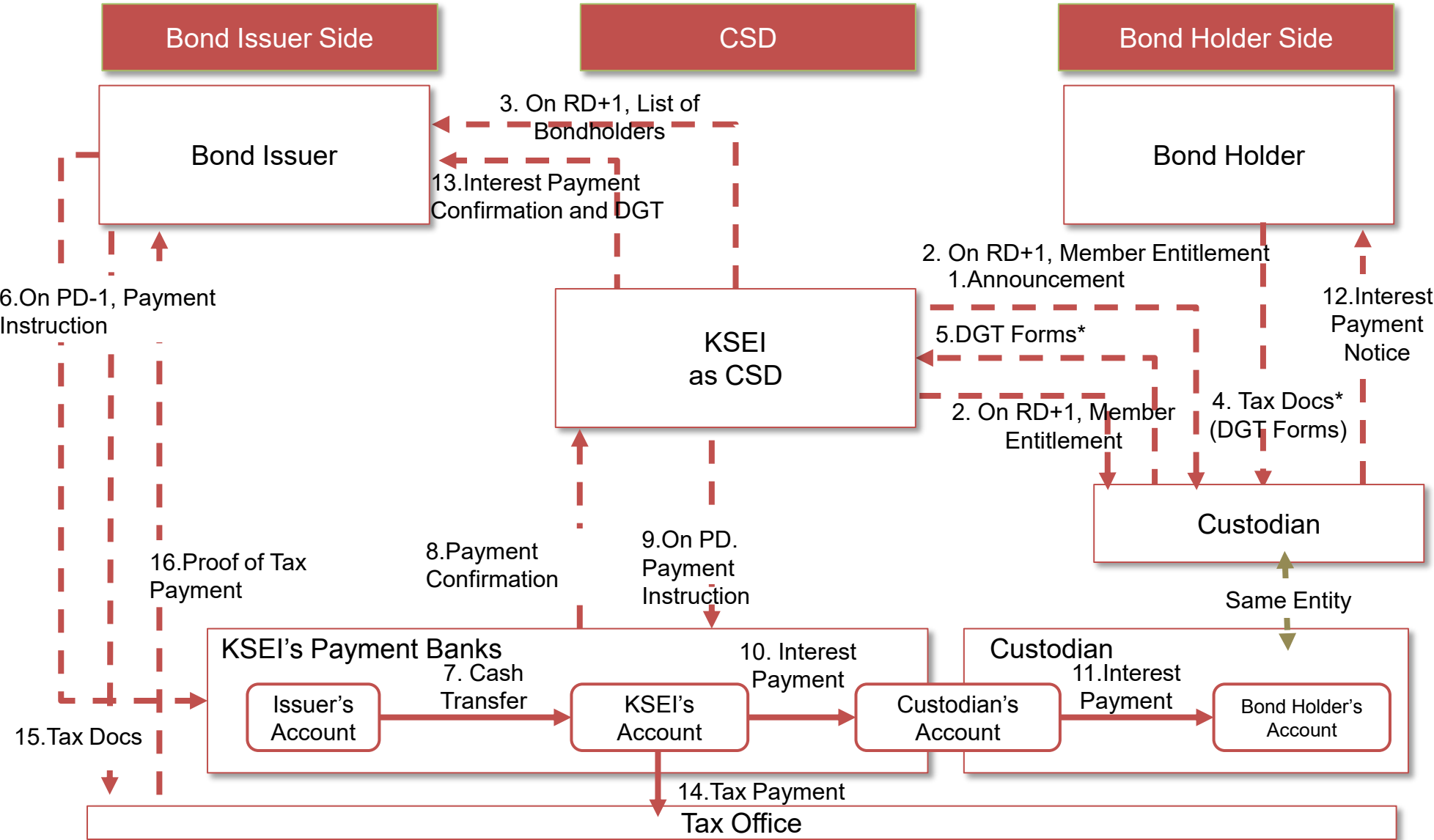
ID Interest Payment Flow of Corporate Bond

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 holders, 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.

ID Interest Payment Flow of Corporate Bond

Process of Interest Payment (2/2)

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

Cash Flow →

Information Flow - →

Bond Issuer Side

CSD

Bond Holder Side

3. On RD+1 List of Bondholders

Bond Issuer

13. Redemption payment confirmation and DGT Forms

Bond Holder

6.On PD -1, Payment Instruction

2. On RD+1, Member Entitlement

1.Announcement

12.Redemption Payment Notice

KSEI as CSD

5. DGT Forms*

13. Redemption

2. on RD+1, Member Entitlement

4. Tax docs* (DGT Forms)

16.Proof of tax payment

9. On PD, Payment Instruction

Custodian

Same Entity

8.Payment Confirmation

KSEI's Payment Banks

10. Redemption Payment

Custodian

7. Cash Transfer

11.Redemption Payment

Issuer's Account

KSEI's Account

Custodian's Account

Bond Holder's Account

15.Tax Docs

14.Tax Payment

Tax Office

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*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 holders, 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 it KSEI's account to relevant custodian's account.
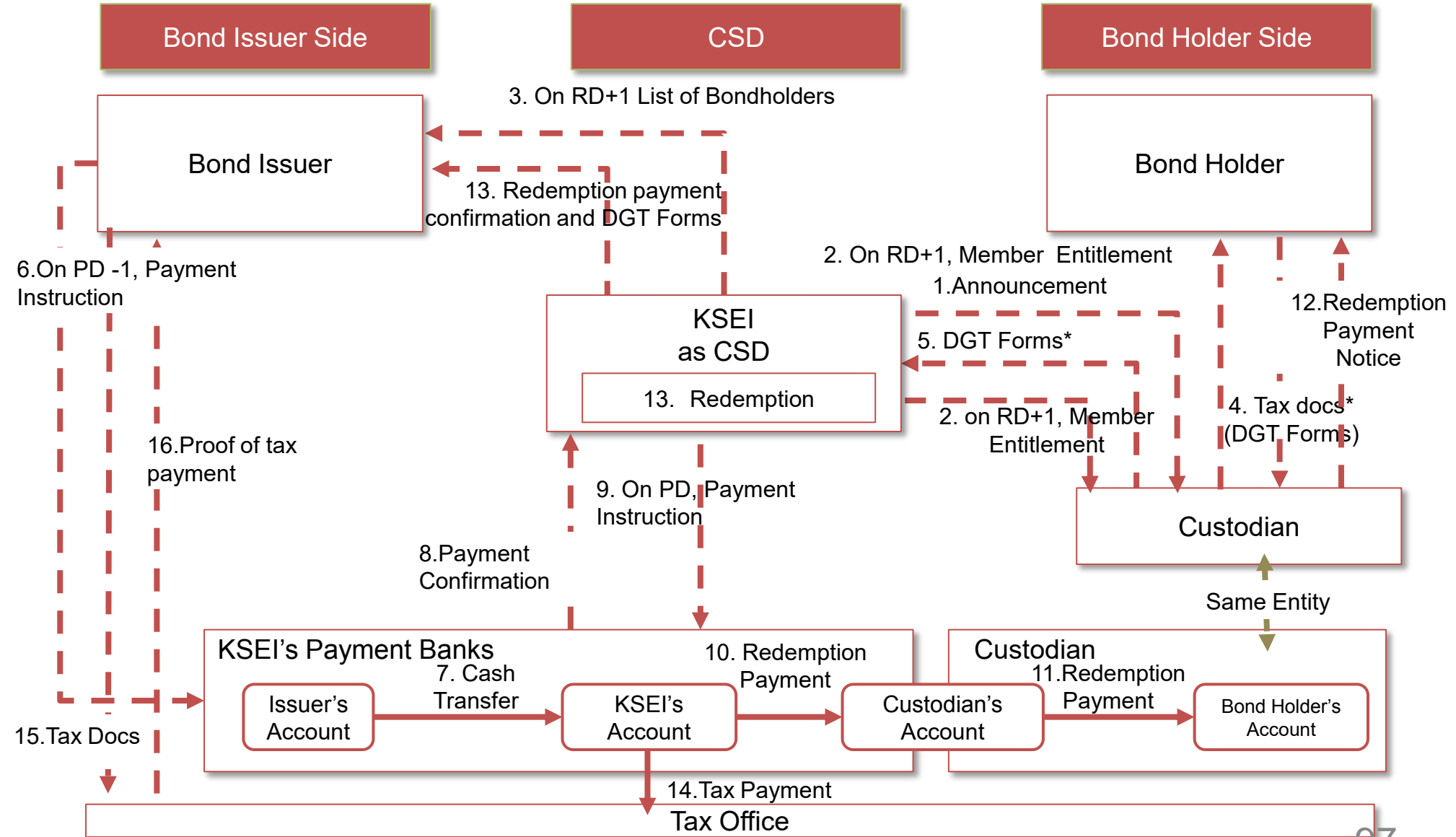10. Payment bank transfers cash from KSEI's account to custodians' accounts.
11. Custodians credit to bondholder's accounts with redemption and last interest payment paid by KSEI's payment bank.
12. Custodians notify bond holders of interest and last interest payment.
13. KSEI submits interest payment 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.

ID Bond Transaction Flow for Foreign Investors OTC Market / DVP

ID T+2

Foreign Institutional Investor (direct or Investment Manager)

Cross-Border

Trading

- 1 Trade Order → International Broker
- 2 Trade Order → Domestic Broker or Bank
- 3 Agreement on Trade & Confirmation ↔ Counter-party
- 5 Trade Confirmation
- 6 Trade Confirmation
- 4 Trade Reporting
- 4 Trade Reporting → IDX (IBPA)

Clearing

- 10 Pre-matching (original instruction)
- 15 Pre-matching (amended instruction)
- 9 Trade Reporting

Matching & Settlement

- 7 Settlement Instruction
- 8 a Settlement Instruction
- 12 Request Amendment
- 11 Pre-Matching Status/Tax Info
- 13 Amended Instruction
- 14 Amended Instruction re Tax
- 23 Settlement Confirm
- 22 Settlement Confirmation
- 25 Securities Statement
- 18 Capture/UL of Transaction Details → BI BI-SSSS
- 19 Retrieval of Matching Status
- 21 Settlement Confirmation

Global Custodian

Domestic Custodian (Sub-Registry)

Cash Settlement

- 8 b FX/Funding Instruction
- 16 FX Confirmation
- 24 Funding of Trades
- 26 Cash Statement
- 27 Cash Statement
- 17 Funding of BI Account → BI BI-RTGS
- 20 Confirmation of Debit/Credit

As Cash Correspondent

As FX Bank / **As Cash Correspondent**

ID Bond Transaction Flow for Foreign Investors OTC Market / DVP

Trade Date

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

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 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

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

Japan (JP)

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

Trading	Tokyo OTC market	TSE
Trade matching	JASDEC (PSMS)	
CCP	*Trans. Flow for JGB* JGBCC *Trans. Flow for Foreign Investors*	JSCC
Settlement match.	*Tras. Flow for JGB (via PSMS)* JASDEC (PSMS)	
Bond settlement	BOJ (BOJ-NET JGB Services)	
Cash settlement	BOJ (BOJ-NET Funds Transfer System)	
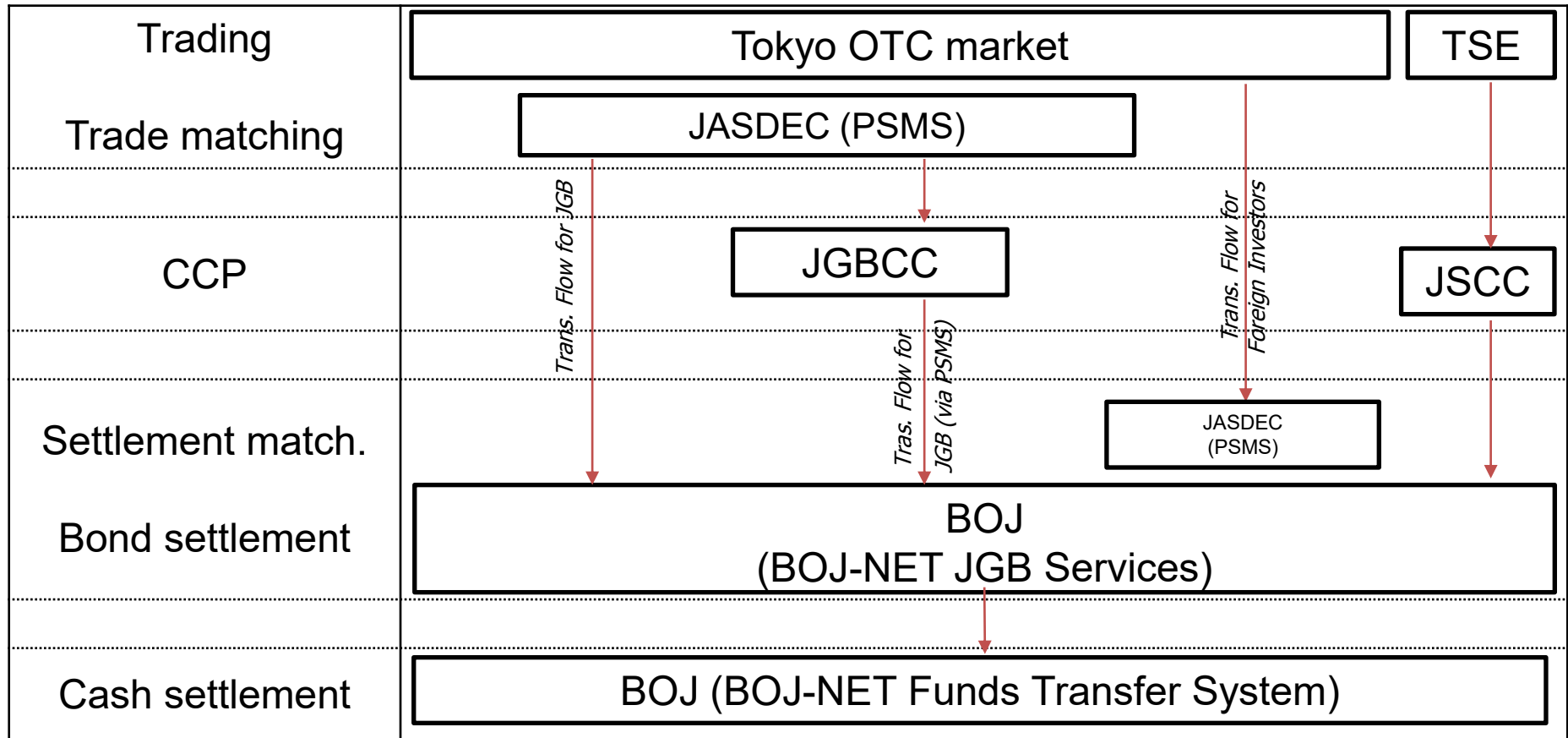
BOJ: Bank of Japan
JGBCC: Japanese Government Bond Clearing Corporation
JSCC: Japan Securities Clearing Corporation
JASDEC: Japan Securities Depository Center, Inc.

JGB: Japanese Government Bond
OTC: Over the Counter
PSMS: Pre-Settlement Matching System
TSE: Tokyo Stock Exchange

JP Corporate Bond Market Infrastructure Diagram

Trading	Tokyo OTC market	TSE
Trade matching	JASDEC (PSMS)	
CCP	*Trans. Flow for Foreign Investors* / *Tran. Flow for Corporate Bond*	
Settlement match.	JASDEC (PSMS)	
Bond settlement	JASDEC (Book-Entry Transfer System)	
Cash settlement	BOJ (BOJ-NET Funds Transfer System)	
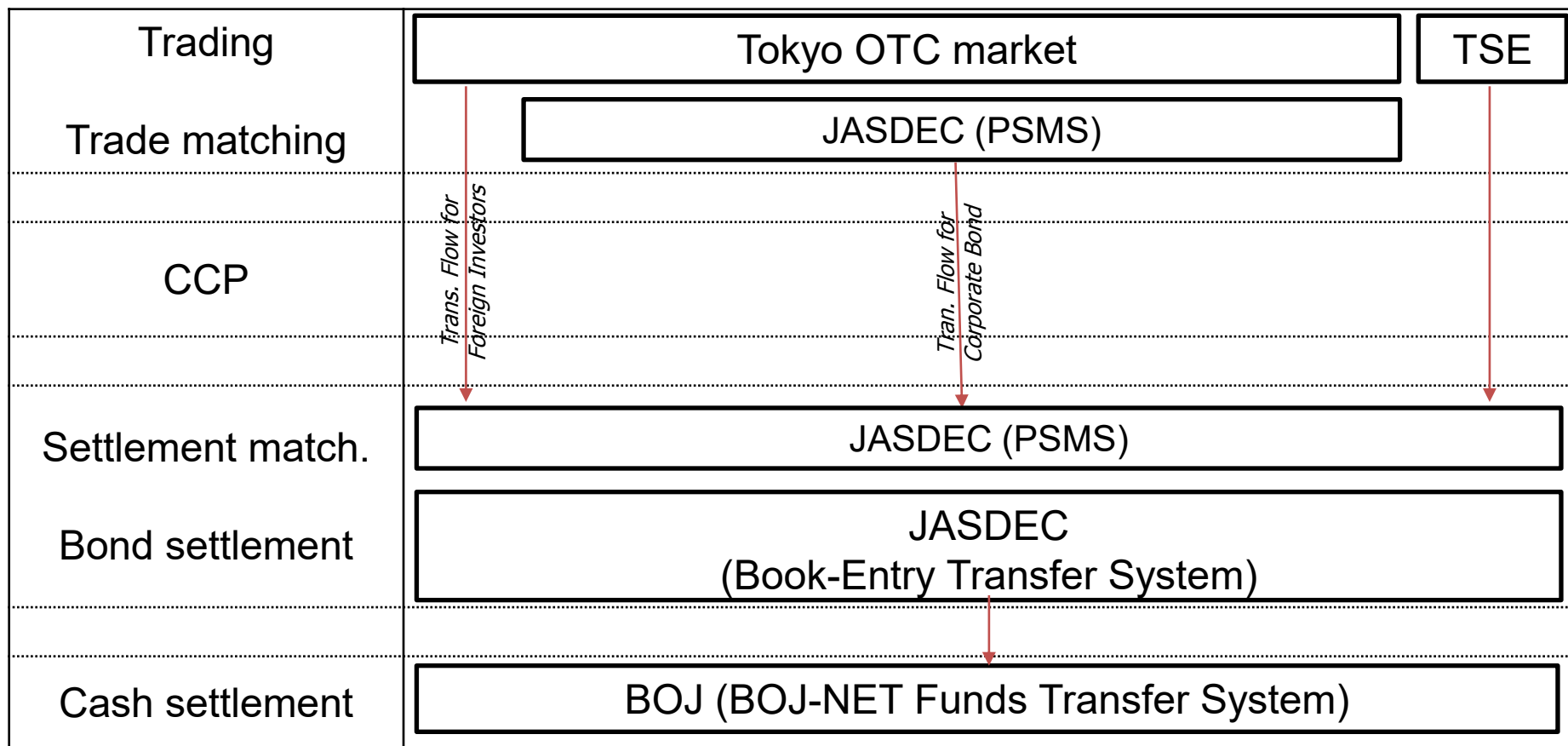
BOJ: Bank of Japan
JASDEC: Japan Securities Depository Center, Inc.

OTC: Over the Counter
PSMS: Pre-Settlement Matching System
TSE: Tokyo Stock Exchange

Note1: Non fixed income bonds such as convertible bonds are not included here.

JP Government Transaction Flow for Domestic Trades
OTC Market (JGB) / DVP through Trade Matching (PSMS)

Sell Side

1. Trade

Buy Side

JASDEC (PSMS)

2. Trade report

2. Trade report

3. Trade Matching

Standing Settlement Instruction

4. Notice Data of Trade Matching Status

4. Notice Data of Trade Matching Status

5. Settlement Matching

6. JGB Transfer Instruction

7. Notice of Acceptance of JGB Transfer Instruction for DVP

Sell Side's Agent for Securities

(Deliverer of JGB)

BOJ (BOJ-NET)

Buy Side's Agent for Securities

(Receiver of JGB)

7. Notice of Acceptance of 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

10. Notice of DVP Settlement

Securities Services

10. Bond Settlement

7. Notice of JGB Transfer Instruction for DVP

Buy Side's Agent for Funds

(Sender of Funds)

11. Notice of DVP Settlement

↑ DVP ↓

8-2. Notice of DVP Request by Deliverer of JGB

10. Cash Settlement

9-1. DVP Request

Sell Side's Agent for Funds

(Receiver of Funds)

9-2. Notice of Acceptance of DVP Request

RTGS

11. Notice of Credit to Current Account for DVP

11. Notice of DVP Settlement

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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

JGBCC

（For Deliverer of JGB）
14. Notice of Acceptance of JGB Transfer Instruction for DVP

16-1. Notice of Acceptance of DVP Request

17. Notice of DVP Settlement

（For Receiver of JGB）
14. Notice of Acceptance of JGB Transfer Instruction for DVP

16-2 Report of Acceptance of DVP Request

17. Notice of DVP Settlement

（For Deliverer of JGB）
13. JGB Transfer Instruction for DVP

（For Receiver of JGB）
13. JGB Transfer Instruction for DVP

BOJ (BOJ-NET)

Seller's agent for securities

(Deliverer of JGB)

| 14. Notice of Acceptance of JGB Transfer Instruction for DVP |
| 15-1. DVP Request |
| 16-1. Notice of Acceptance of DVP Request |
| 17. Notice of DVP Settlement |

Buyer's agent for securities

(Receiver of JGB)

| 14. Notice of Acceptance of JGB Transfer Instruction for DVP |
| 17. Notice of DVP Settlement |

Securities services

16. Bond Settlement

DVP

16. Cash Settlement

RTGS

| 14. Notice of JGB Transfer Instruction for DVP |
| 15-2. DVP Request (for cash) |
| 16-2. Notice of Acceptance of DVP Request (for cash) |
| 17. Notice of DVP Settlement (Fund) |

Buyer's agent for funds

(Sender of Funds)

Seller's agent for funds

(Receiver of Funds)

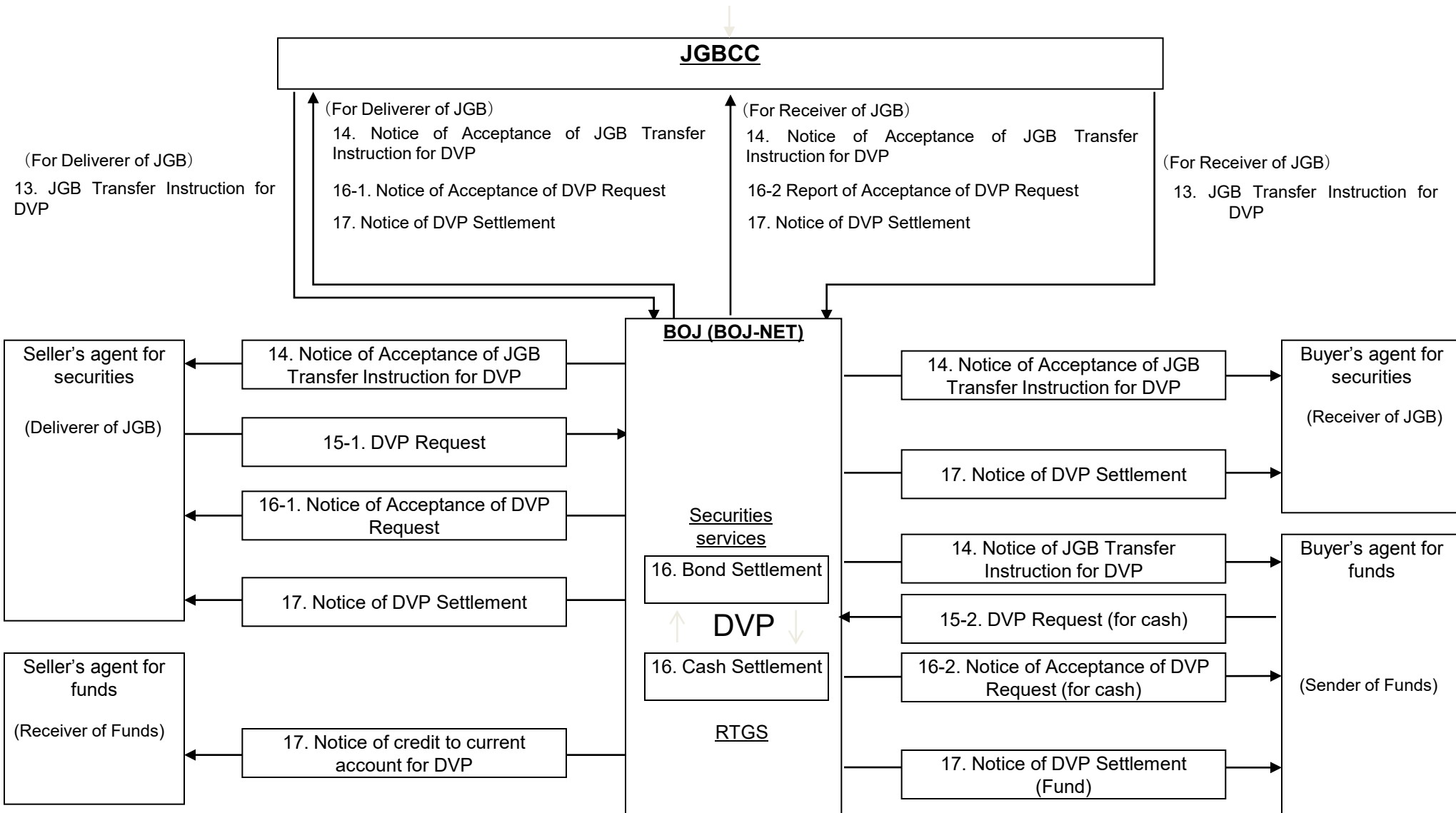| 17. Notice of credit to current account for DVP |

Source: Bank of Japan (modified by presenter)

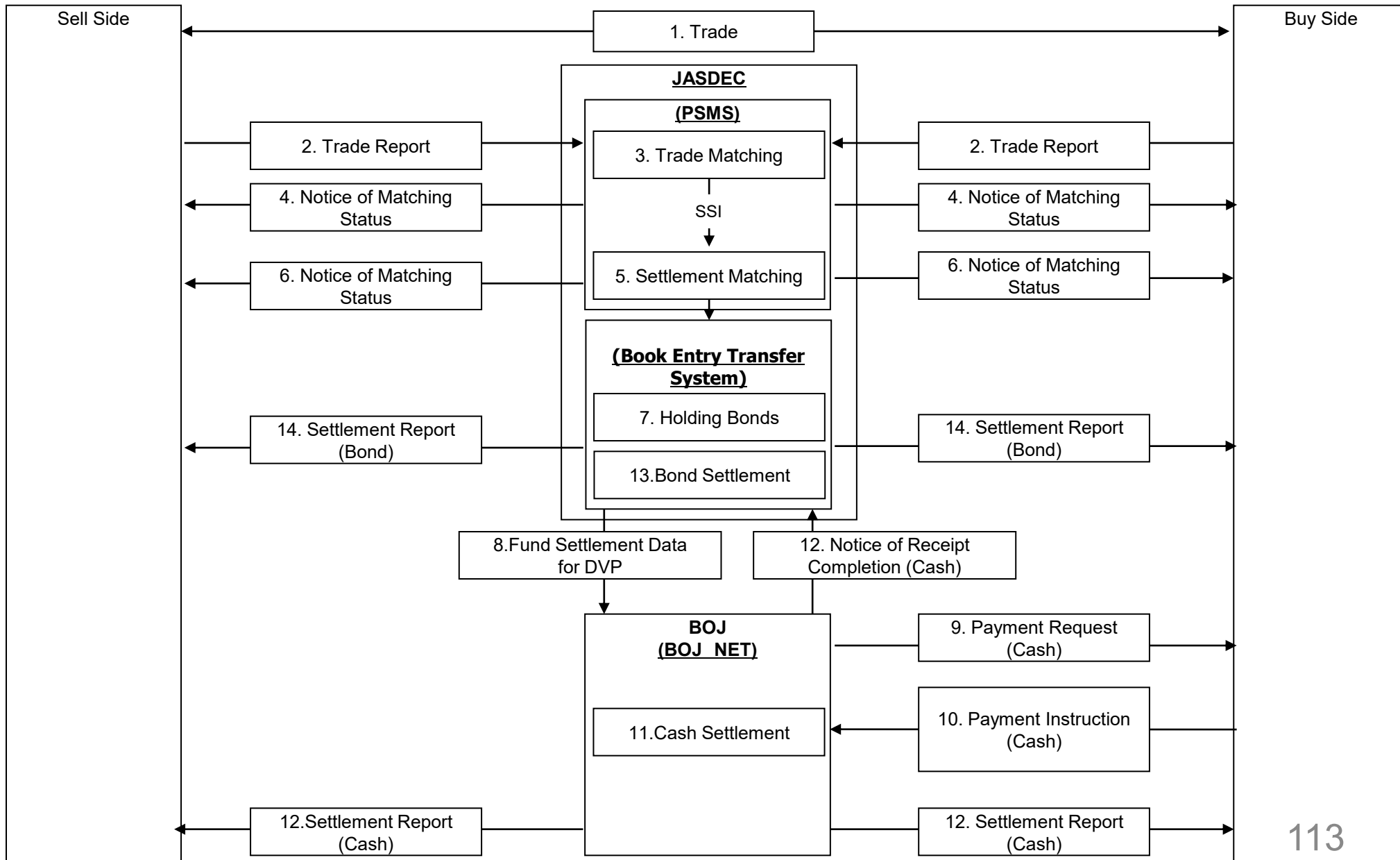# JP Government Transaction Flow for Domestic Trades
OTC Market (JGB) / DVP (New BOJ-NET) through Trade Matching (PSMS) and JGBCC

OTC Market

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.

JP Bond Transaction Flow for Domestic Trades

Sell Side		Buy Side

1. Trade (Sell Side ⟷ Buy Side)

JASDEC

(PSMS)

2. Trade Report → **3. Trade Matching** ← 2. Trade Report

4. Notice of Matching Status

SSI

4. Notice of Matching Status

6. Notice of Matching Status ← **5. Settlement Matching** → 6. Notice of Matching Status

(Book Entry Transfer System)

7. Holding Bonds

14. Settlement Report (Bond)

14. Settlement Report (Bond)

13.Bond Settlement

8.Fund Settlement Data for DVP

12. Notice of Receipt Completion (Cash)

BOJ (BOJ_NET)

9. Payment Request (Cash)

11.Cash Settlement

10. Payment Instruction (Cash)

12.Settlement Report (Cash)
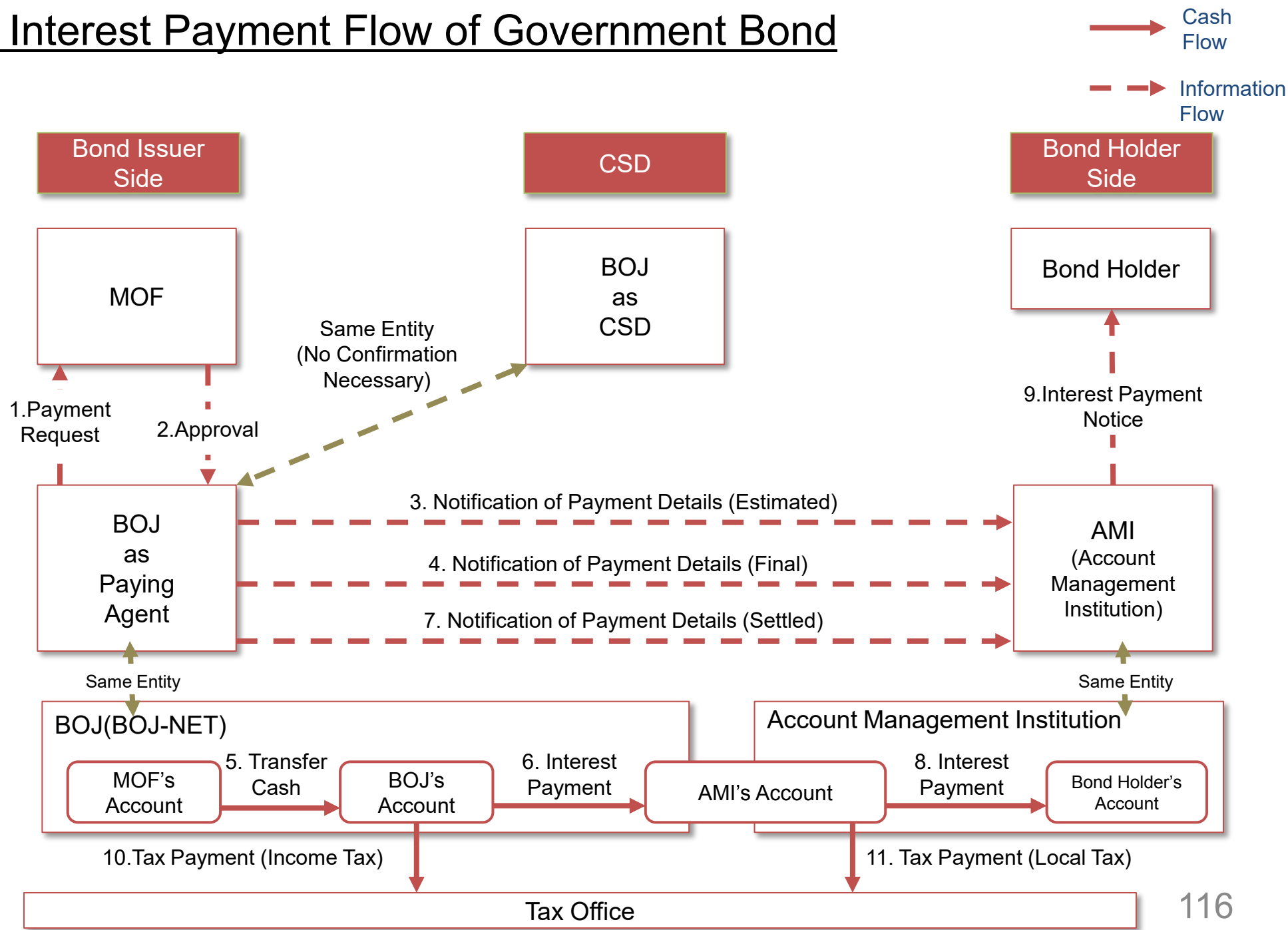
12. Settlement Report (Cash)

JP Bond Transaction Flow for Domestic Trades

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 it's 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.

JP Interest Payment Flow of Government Bond

Legend:
→ Cash Flow
⇢ Information Flow

Bond Issuer Side

MOF

CSD

BOJ as CSD

Same Entity (No Confirmation Necessary)

Bond Holder Side

Bond Holder

1. Payment Request
2. Approval

9. Interest Payment Notice

BOJ as Paying Agent

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

AMI (Account Management Institution)

Same Entity

Same Entity

BOJ(BOJ-NET)

MOF's Account
5. Transfer Cash
BOJ's Account
6. Interest Payment
AMI's Account
8. Interest Payment
Bond Holder's Account

Account Management Institution

10. Tax Payment (Income Tax)
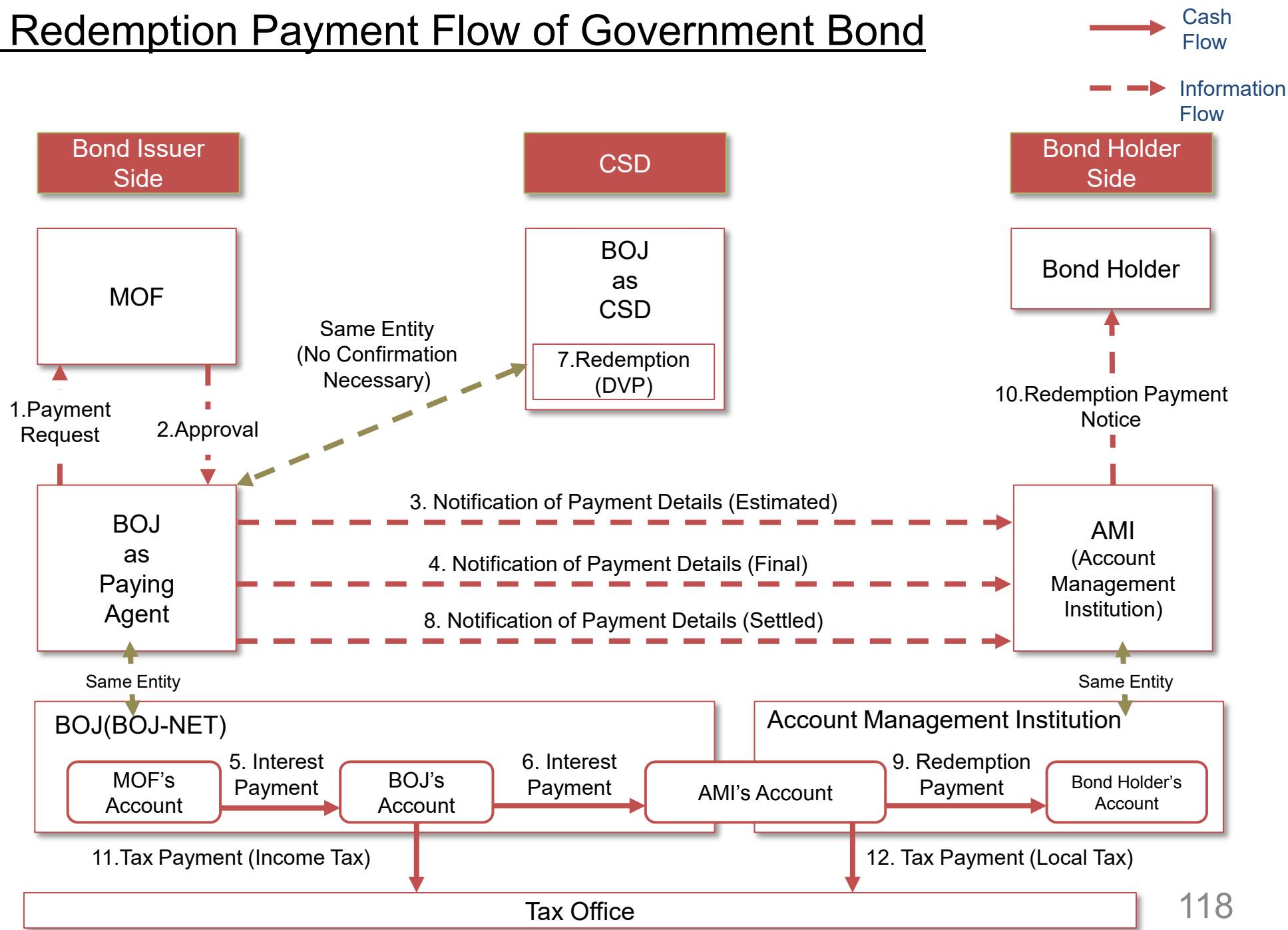11. Tax Payment (Local Tax)

Tax Office

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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.
9. Account management institutions notifies bond holders of interest payment.
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

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

MOF

BOJ as CSD

7.Redemption (DVP)

Bond Holder

Same Entity (No Confirmation Necessary)

1.Payment Request

2.Approval

10.Redemption Payment Notice

BOJ as Paying Agent

3. Notification of Payment Details (Estimated)

4. Notification of Payment Details (Final)

8. Notification of Payment Details (Settled)

AMI (Account Management Institution)

Same Entity

Same Entity

BOJ(BOJ-NET)

Account Management Institution

MOF's Account

5. Interest Payment

BOJ's Account

6. Interest Payment

AMI's Account

9. Redemption Payment

Bond Holder's Account

11.Tax Payment (Income Tax)

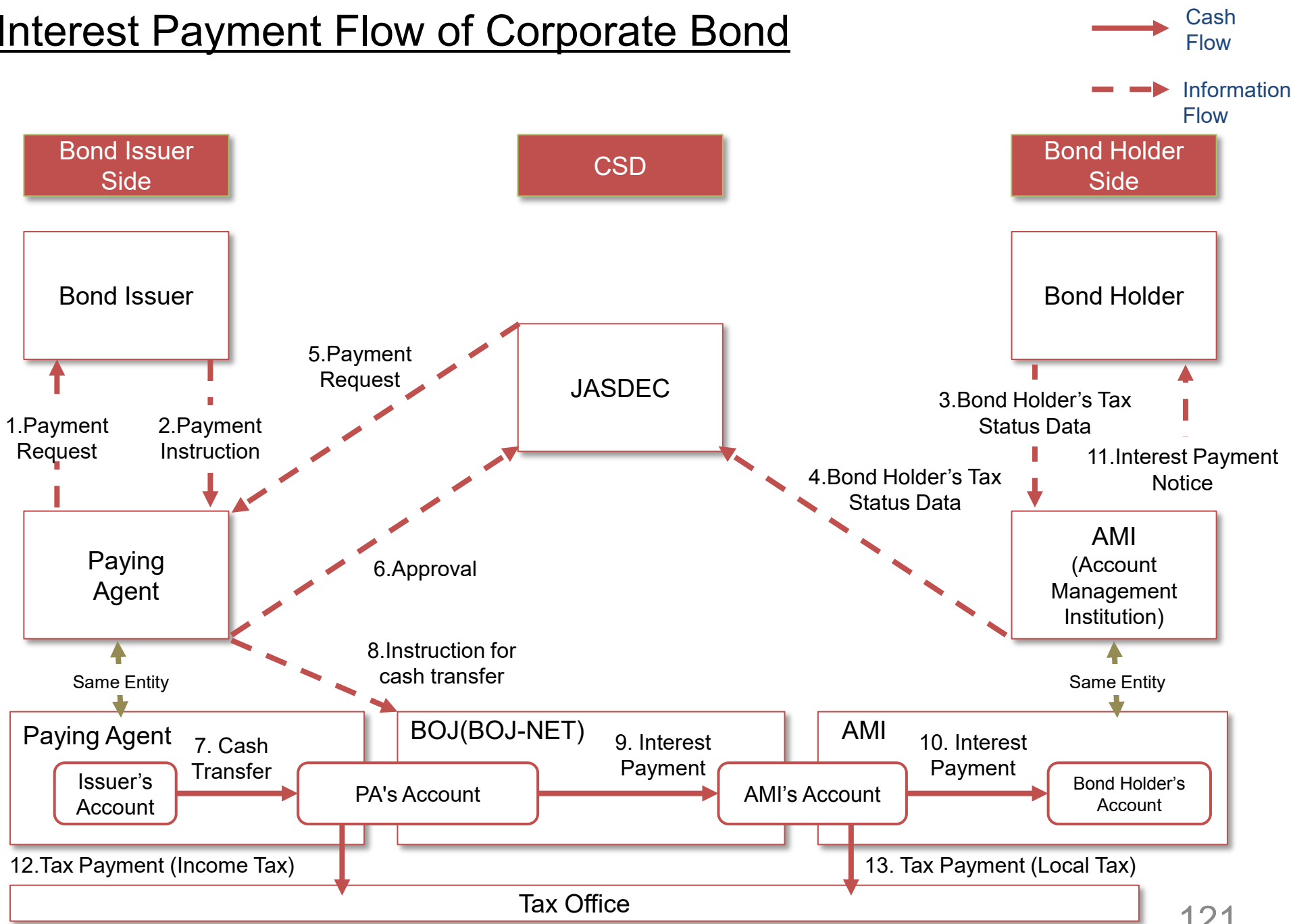12. Tax Payment (Local Tax)

Tax Office

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JP Redemption Payment Flow of Government Bond

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.

JP Interest Payment Flow of Corporate Bond

Cash Flow (solid arrow)
Information Flow (dashed arrow)

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

JASDEC

Bond Holder

1.Payment Request
2.Payment Instruction
5.Payment Request

Paying Agent

6.Approval

3.Bond Holder's Tax Status Data
4.Bond Holder's Tax Status Data
11.Interest Payment Notice

AMI (Account Management Institution)

8.Instruction for cash transfer

Same Entity

Paying Agent — Issuer's Account
7. Cash Transfer

BOJ(BOJ-NET) — PA's Account
9. Interest Payment

AMI — AMI's Account
10. Interest Payment

Bond Holder's Account

Same Entity

12.Tax Payment (Income Tax)
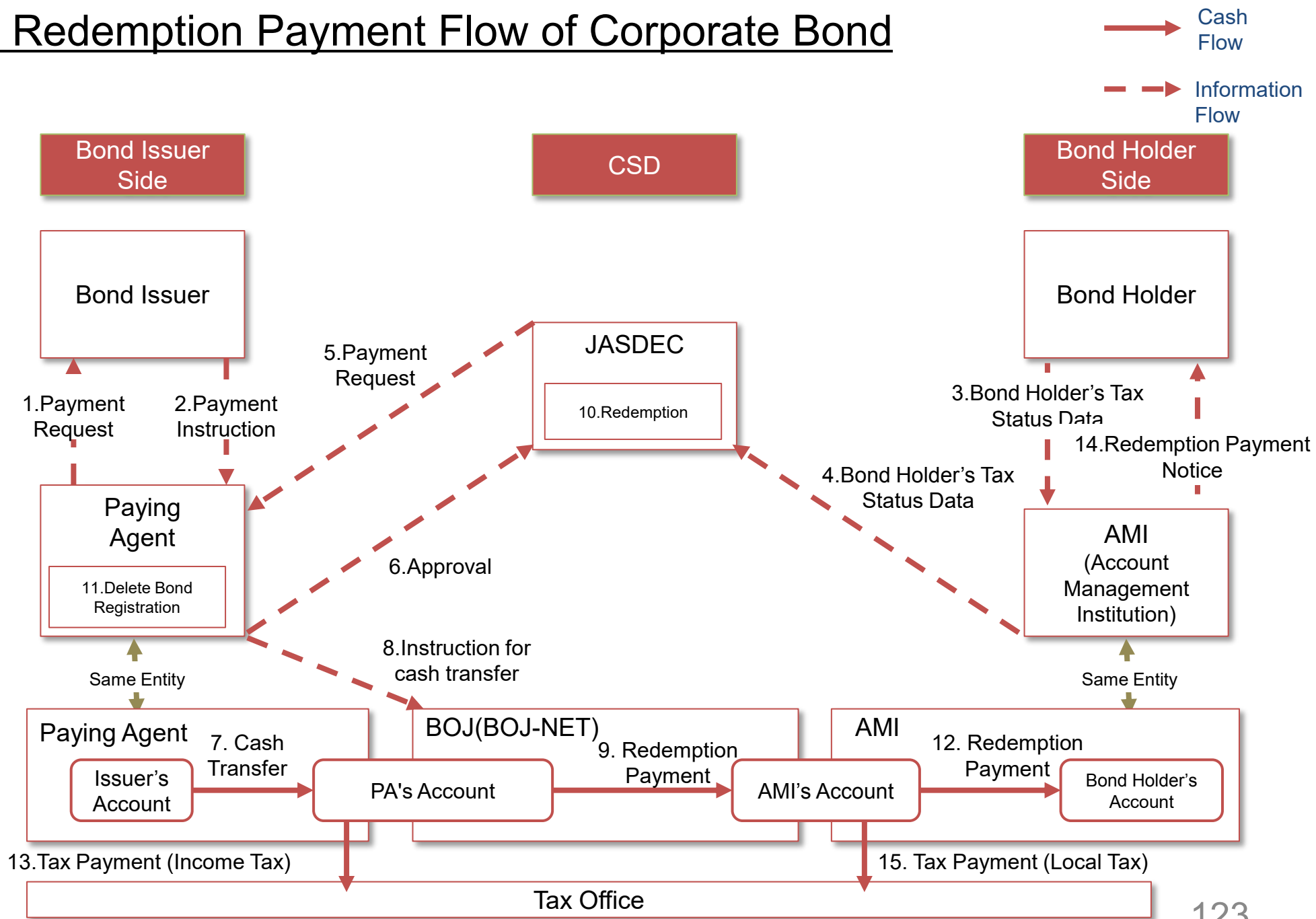13. Tax Payment (Local Tax)

Tax Office

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JP Interest Payment Flow of Corporate Bond

Process of Interest Payment

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 it's 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 it's 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

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

JASDEC

Bond Holder

10.Redemption

1.Payment Request

2.Payment Instruction

5.Payment Request

3.Bond Holder's Tax Status Data

14.Redemption Payment Notice

Paying Agent

11.Delete Bond Registration

6.Approval

4.Bond Holder's Tax Status Data

AMI (Account Management Institution)

Same Entity

8.Instruction for cash transfer

Same Entity

Paying Agent

Issuer's Account

7. Cash Transfer

BOJ(BOJ-NET)

PA's Account

9. Redemption Payment

AMI's Account

AMI

12. Redemption Payment

Bond Holder's Account

13.Tax Payment (Income Tax)

15. Tax Payment (Local Tax)

Tax Office

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# JP Redemption Payment Flow of Corporate Bond

Process of Redemption Payment

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 transfer cash for redemption payment from issuer's account to it's 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 it's 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.

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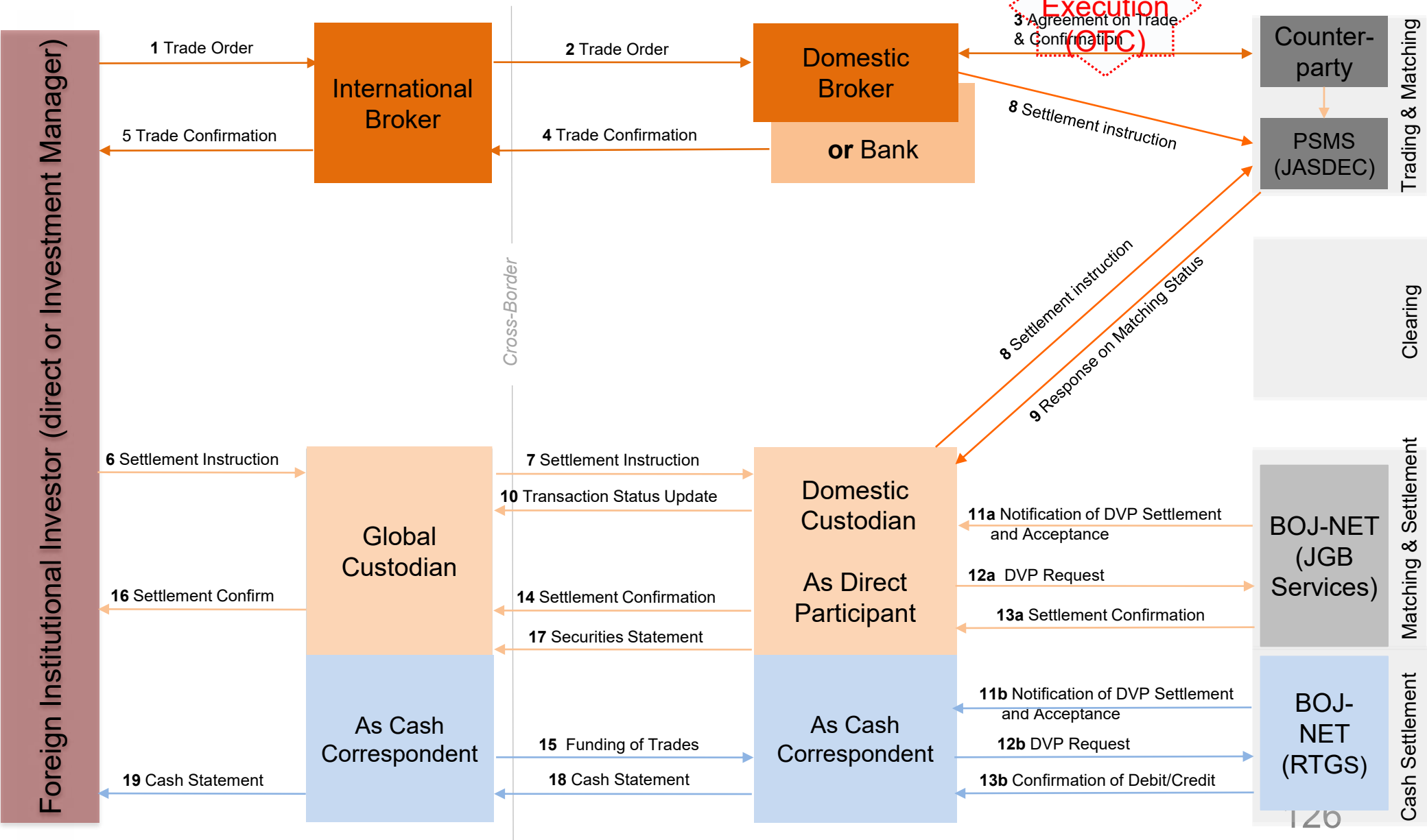
JP Bond Transaction Flow for Foreign Investors OTC Market (JGB) / DVP

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 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
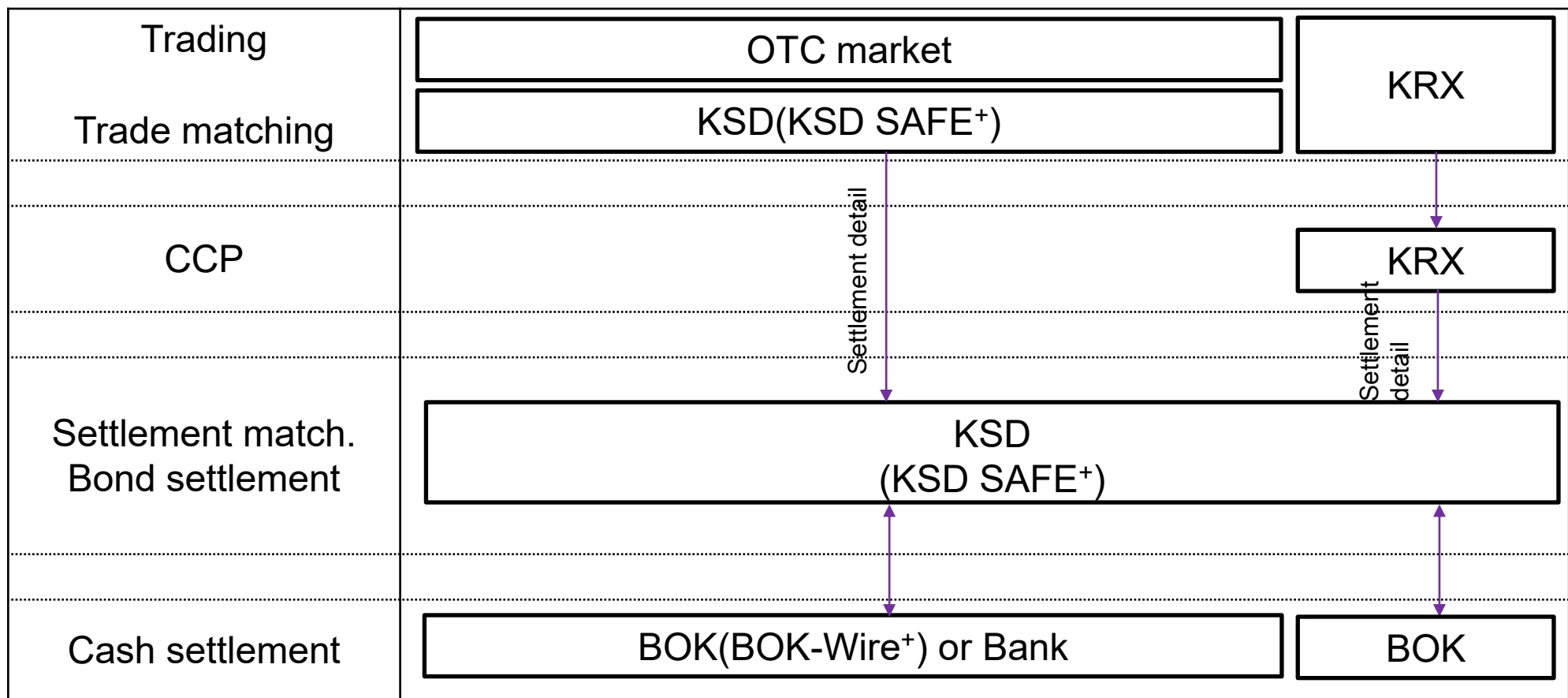
Republic of Korea (KR)

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

KR Government Bond Market Infrastructure Diagram

Trading	OTC market	KRX
Trade matching	KSD(KSD SAFE$^+$)	
CCP		KRX
Settlement match. Bond settlement	KSD (KSD SAFE$^+$)	
Cash settlement	BOK(BOK-Wire$^+$) or Bank	BOK

Settlement detail (arrows connecting KSD SAFE$^+$ to KSD, KRX to KRX, KSD to BOK)

- 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

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KR Corporate Bond Market Infrastructure Diagram

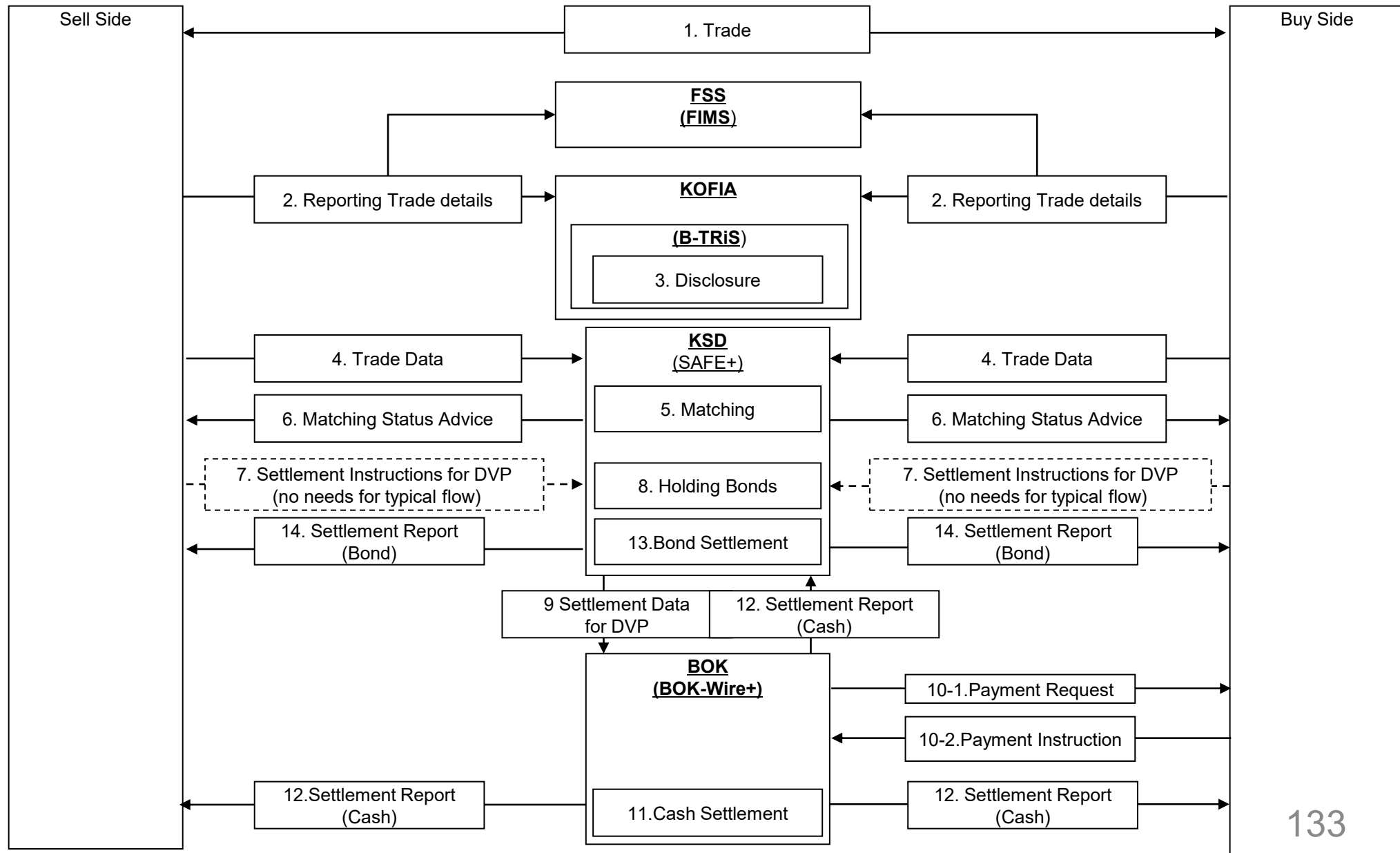|		
Trading	OTC market	KRX
Trade matching	KSD(KSD SAFE$^+$)	
CCP	↑ Settlement detail	KRX
Settlement match. Bond settlement	KSD (KSD SAFE$^+$)	↕ Settlement detail
Cash settlement	BOK(BOK Wire$^+$) or Bank	Bank

- 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

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KR Government Bond Transaction Flow for Domestic Trades (OTC)

Sell Side

Buy Side

1. Trade

**FSS
(FIMS)**

2. Reporting Trade details

KOFIA

(B-TRiS)

3. Disclosure

2. Reporting Trade details

4. Trade Data

**KSD
(SAFE+)**

4. Trade Data

6. Matching Status Advice

5. Matching

6. Matching Status Advice

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

8. Holding Bonds

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

14. Settlement Report
(Bond)

13.Bond Settlement

14. Settlement Report
(Bond)

9 Settlement Data
for DVP

12. Settlement Report
(Cash)

**BOK
(BOK-Wire+)**

10-1.Payment Request

10-2.Payment Instruction

12.Settlement Report
(Cash)

11.Cash Settlement
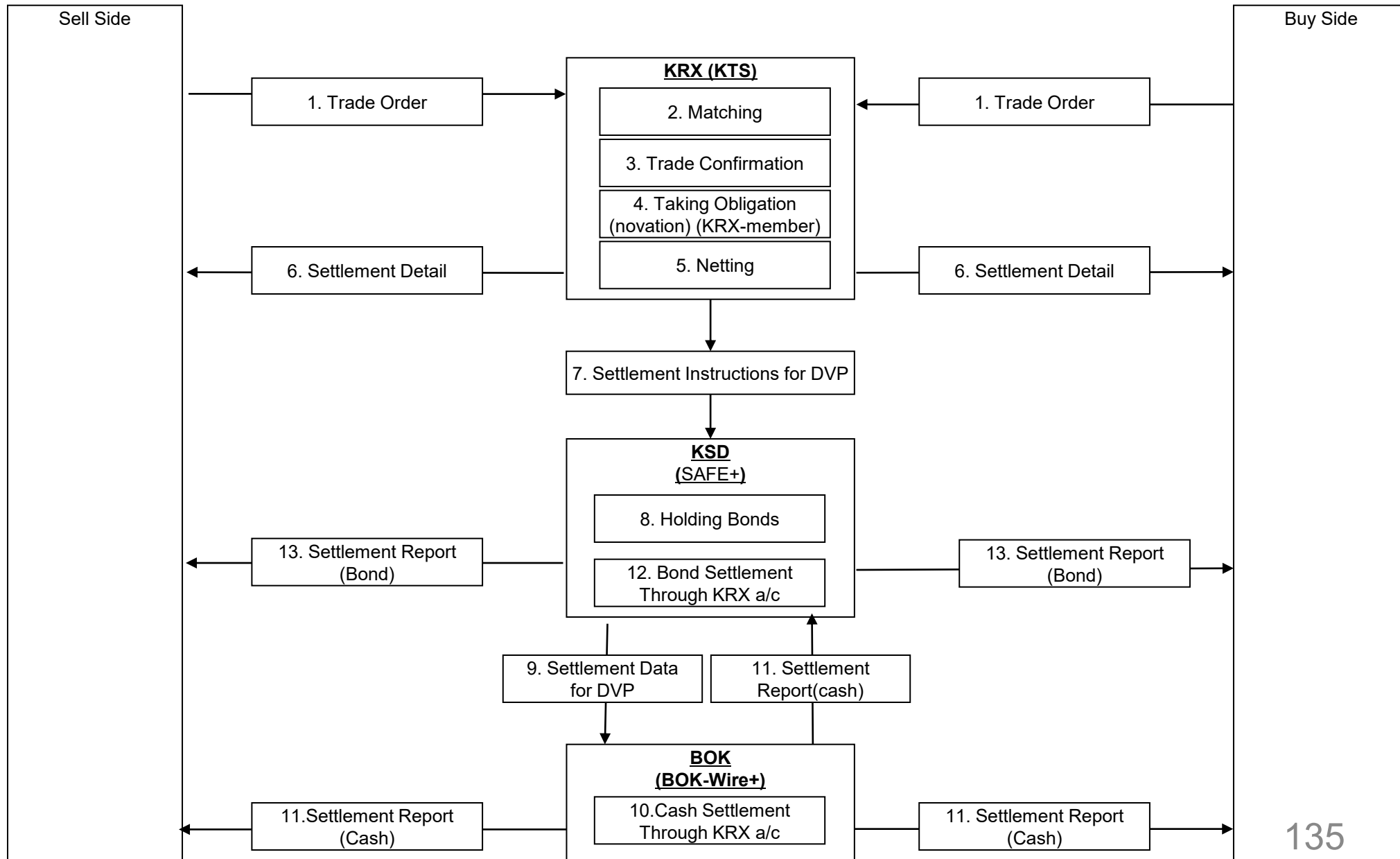
12. Settlement Report
(Cash)

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KR Government Bond Transaction Flow for Domestic Trades (OTC)

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).
10-1. 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

Buy Side

1. Trade Order

KRX (KTS)
- 2. Matching
- 3. Trade Confirmation
- 4. Taking Obligation (novation) (KRX-member)
- 5. Netting

1. Trade Order

6. Settlement Detail

6. Settlement Detail

7. Settlement Instructions for DVP

KSD (SAFE+)
- 8. Holding Bonds
- 12. Bond Settlement Through KRX a/c

13. Settlement Report (Bond)

13. Settlement Report (Bond)

9. Settlement Data for DVP

11. Settlement Report(cash)

BOK (BOK-Wire+)
- 10. Cash Settlement Through KRX a/c

11. Settlement Report (Cash)

11. Settlement Report (Cash)

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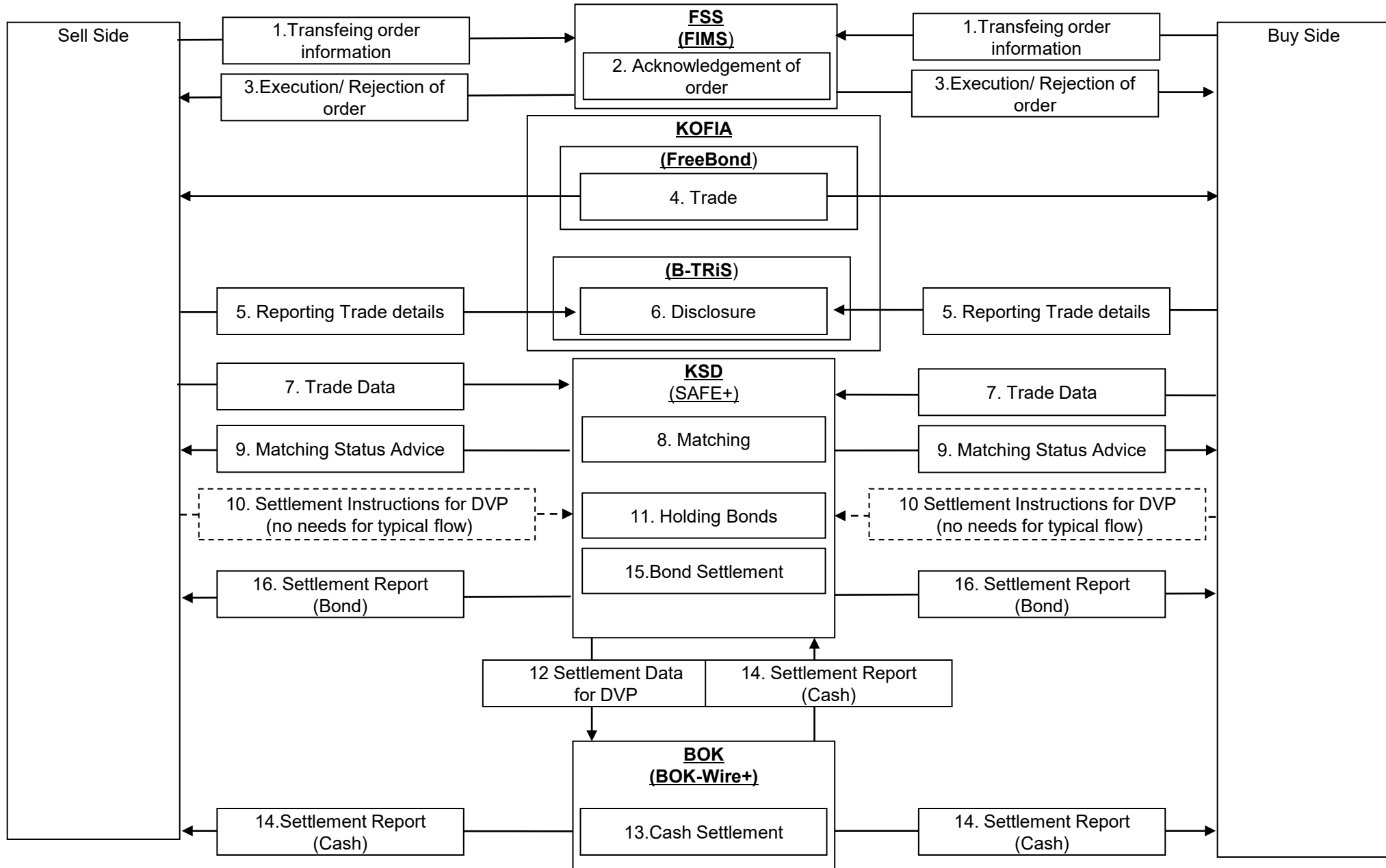# KR Government Bond Transaction Flow for Domestic Trades (Exchange)

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 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.

KR Corporate Bond Transaction Flow for Domestic Trades (OTC)

Sell Side		Buy Side

FSS (FIMS)

- 1.Transfeing order information
- 2. Acknowledgement of order
- 3.Execution/ Rejection of order

KOFIA

(FreeBond)
- 4. Trade

(B-TRiS)
- 5. Reporting Trade details
- 6. Disclosure

KSD (SAFE+)
- 7. Trade Data
- 8. Matching
- 9. Matching Status Advice
- 10. Settlement Instructions for DVP (no needs for typical flow)
- 11. Holding Bonds
- 15.Bond Settlement
- 16. Settlement Report (Bond)

- 12 Settlement Data for DVP
- 14. Settlement Report (Cash)

BOK (BOK-Wire+)
- 13.Cash Settlement
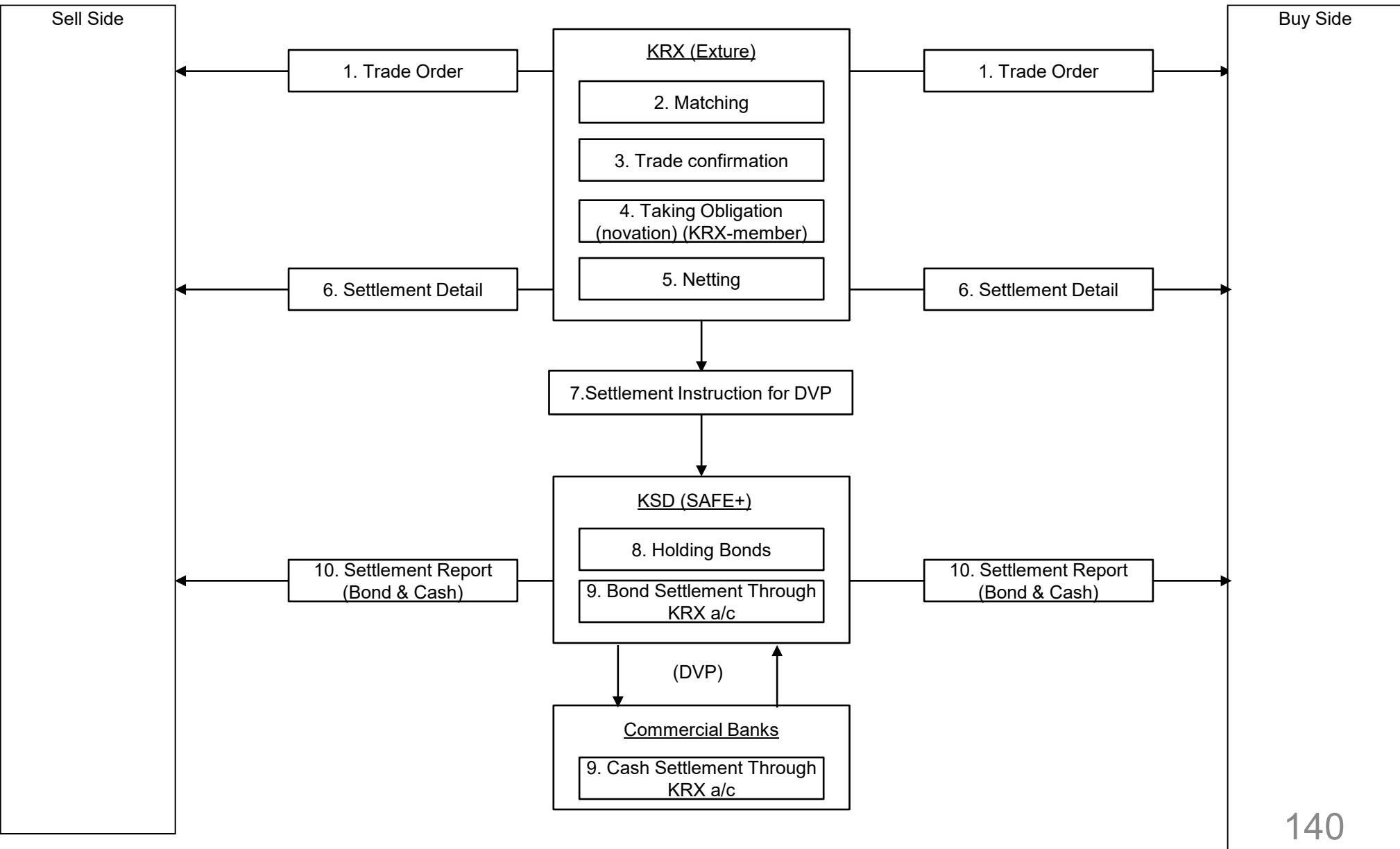- 14.Settlement Report (Cash)

KR Bond Transaction Flow for Domestic Trades

OTC Market

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)

Sell Side

Buy Side

KRX (Exture)

1. Trade Order

1. Trade Order

2. Matching

3. Trade confirmation

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

5. Netting

6. Settlement Detail

6. Settlement Detail

7. Settlement Instruction for DVP

KSD (SAFE+)

8. Holding Bonds

9. Bond Settlement Through KRX a/c

10. Settlement Report (Bond & Cash)

10. Settlement Report (Bond & Cash)

(DVP)

Commercial Banks

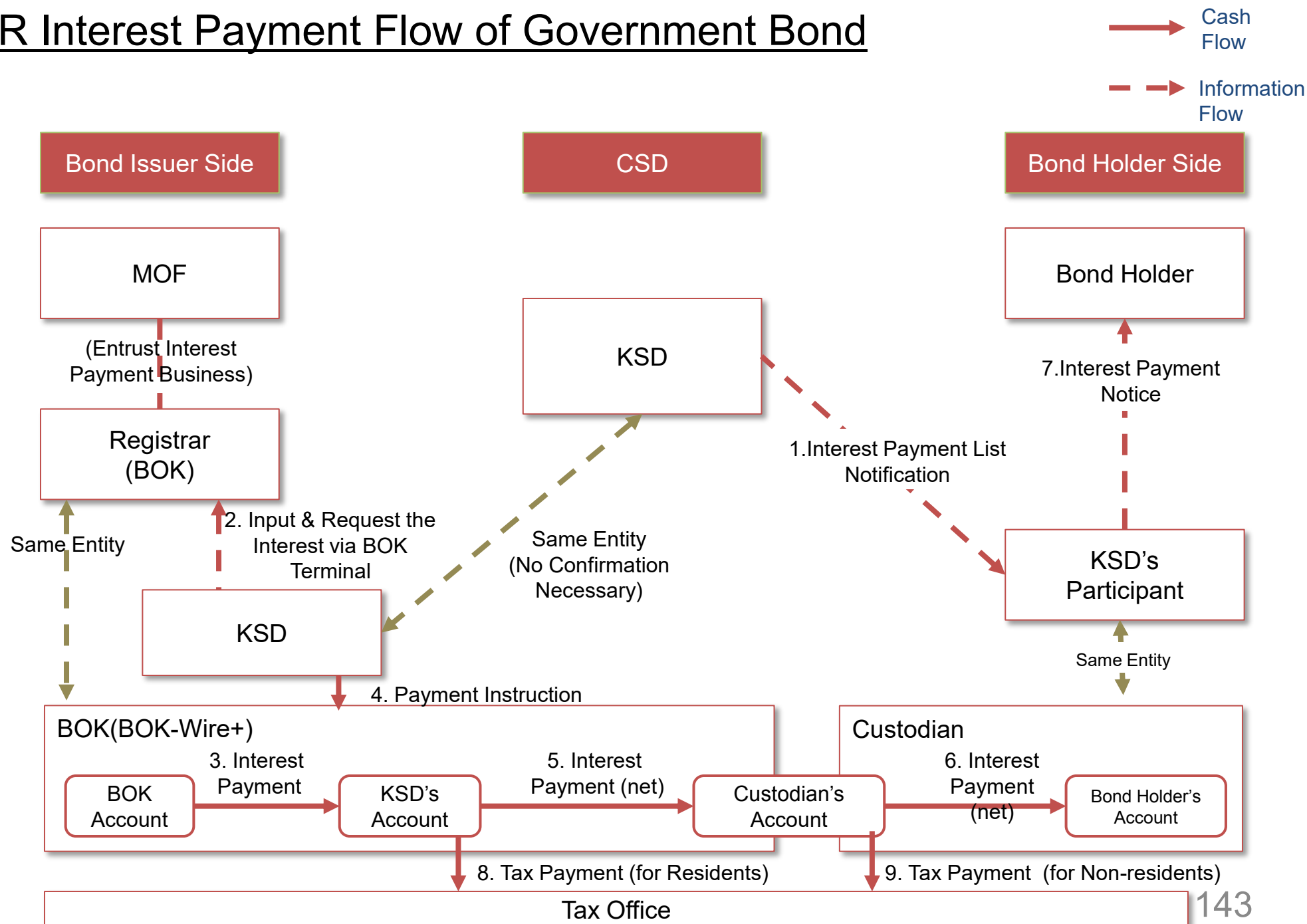9. Cash Settlement Through KRX a/c

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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.

KR Interest Payment Flow of Government Bond

Legend:
- → Cash Flow
- ⇢ Information Flow

Bond Issuer Side

- MOF
- (Entrust Interest Payment Business)
- Registrar (BOK)
- Same Entity
- 2. Input & Request the Interest via BOK Terminal
- KSD
- BOK(BOK-Wire+)
  - BOK Account
  - 3. Interest Payment
  - KSD's Account

CSD

- KSD
- Same Entity (No Confirmation Necessary)

Bond Holder Side

- Bond Holder
- 7. Interest Payment Notice
- 1. Interest Payment List Notification
- KSD's Participant
- Same Entity

- 4. Payment Instruction
- 5. Interest Payment (net)
- Custodian
  - Custodian's Account
  - 6. Interest Payment (net)
  - Bond Holder's Account

- 8. Tax Payment (for Residents)
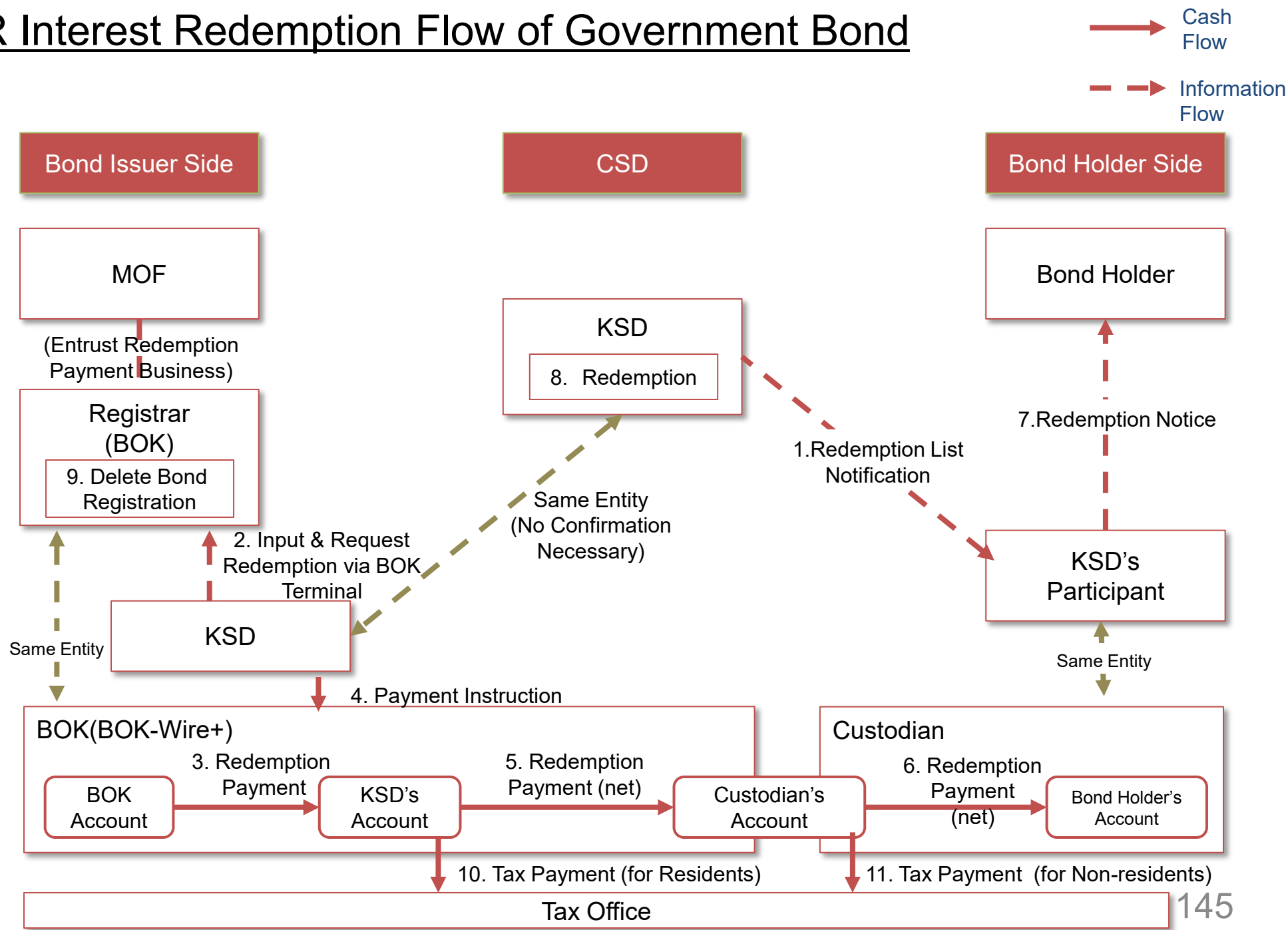- 9. Tax Payment (for Non-residents)
- Tax Office

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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

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

MOF

(Entrust Redemption Payment Business)

Registrar (BOK)

9. Delete Bond Registration

KSD

8. Redemption

Bond Holder

1.Redemption List Notification

7.Redemption Notice

Same Entity (No Confirmation Necessary)

2. Input & Request Redemption via BOK Terminal

KSD

KSD's Participant

Same Entity

Same Entity

4. Payment Instruction

BOK(BOK-Wire+)

Custodian

3. Redemption Payment

BOK Account

KSD's Account

5. Redemption Payment (net)

Custodian's Account

6. Redemption Payment (net)

Bond Holder's Account

10. Tax Payment (for Residents)

11. Tax Payment (for Non-residents)

Tax Office

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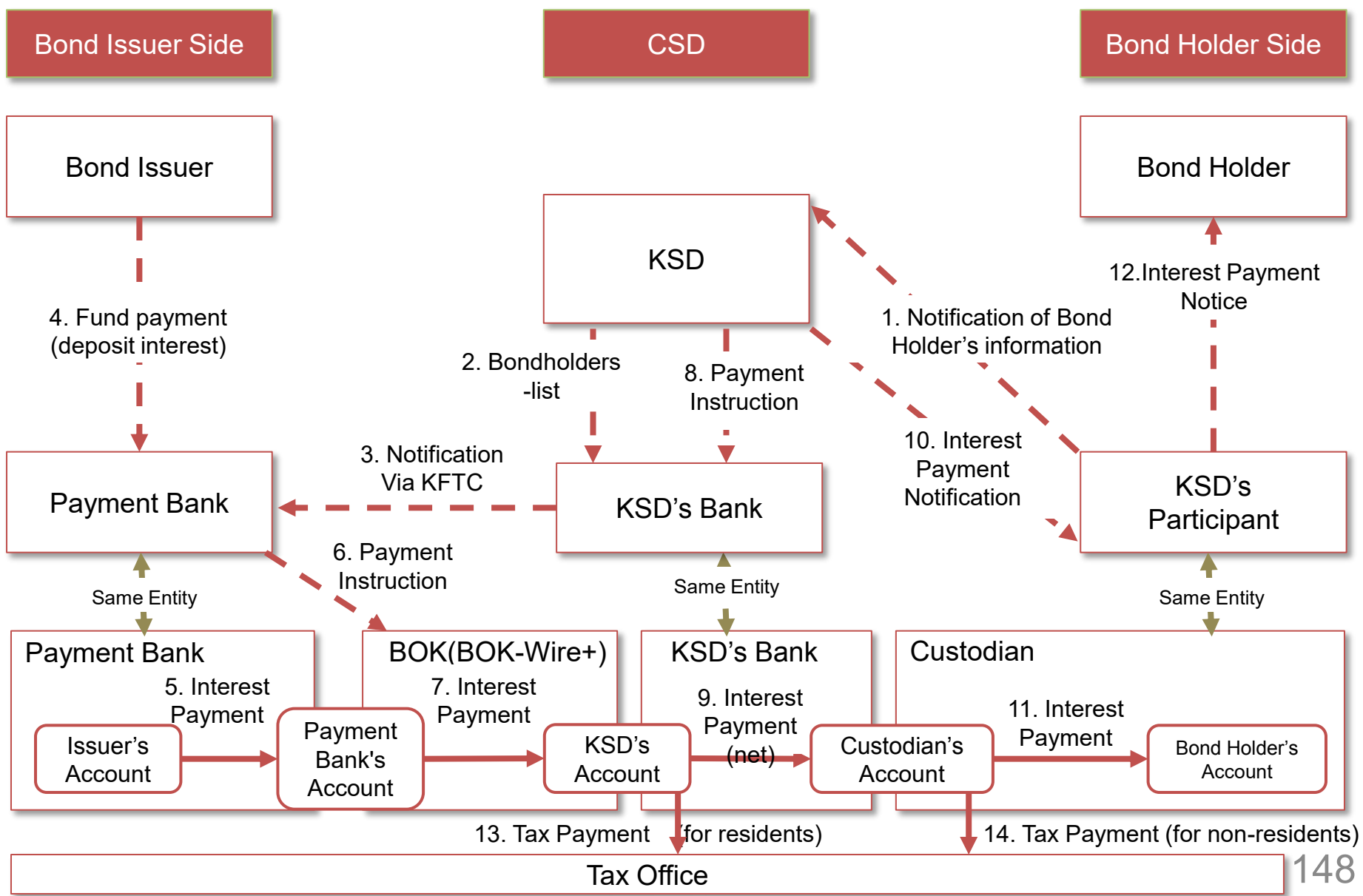# KR Redemption Flow Government Bond

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.

KR Interest Payment Flow of Corporate Bond

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

KSD

Bond Holder

4. Fund payment (deposit interest)

2. Bondholders-list

8. Payment Instruction

1. Notification of Bond Holder's information

12. Interest Payment Notice

Payment Bank

3. Notification Via KFTC

KSD's Bank

10. Interest Payment Notification

KSD's Participant

6. Payment Instruction

Same Entity

Same Entity

Same Entity

Payment Bank

BOK(BOK-Wire+)

KSD's Bank

Custodian

Issuer's Account

5. Interest Payment

Payment Bank's Account

7. Interest Payment

KSD's Account

9. Interest Payment (net)

Custodian's Account

11. Interest Payment

Bond Holder's Account

13. Tax Payment (for residents)

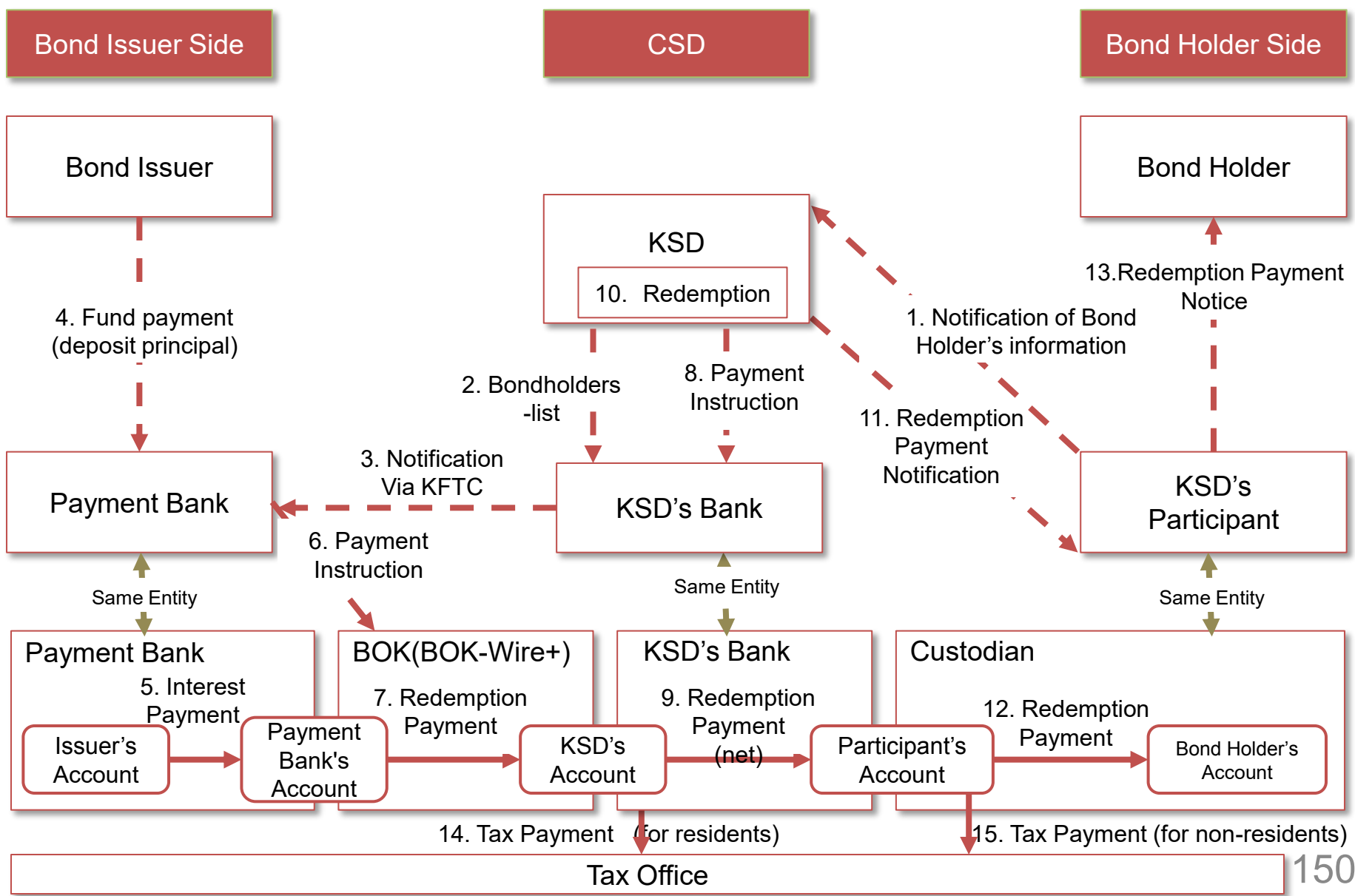14. Tax Payment (for non-residents)

Tax Office

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KR Interest Payment Flow Corporate Bond

Process of Interest 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 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

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

KSD

10. Redemption

Bond Holder

4. Fund payment (deposit principal)

2. Bondholders-list

8. Payment Instruction

1. Notification of Bond Holder's information

13. Redemption Payment Notice

Payment Bank

3. Notification Via KFTC

KSD's Bank

11. Redemption Payment Notification

KSD's Participant

6. Payment Instruction

Same Entity

Same Entity

Same Entity

Payment Bank

BOK(BOK-Wire+)

KSD's Bank

Custodian

5. Interest Payment

Issuer's Account

7. Redemption Payment

Payment Bank's Account

9. Redemption Payment (net)

KSD's Account

12. Redemption Payment

Participant's Account

Bond Holder's Account

14. Tax Payment (for residents)

15. Tax Payment (for non-residents)
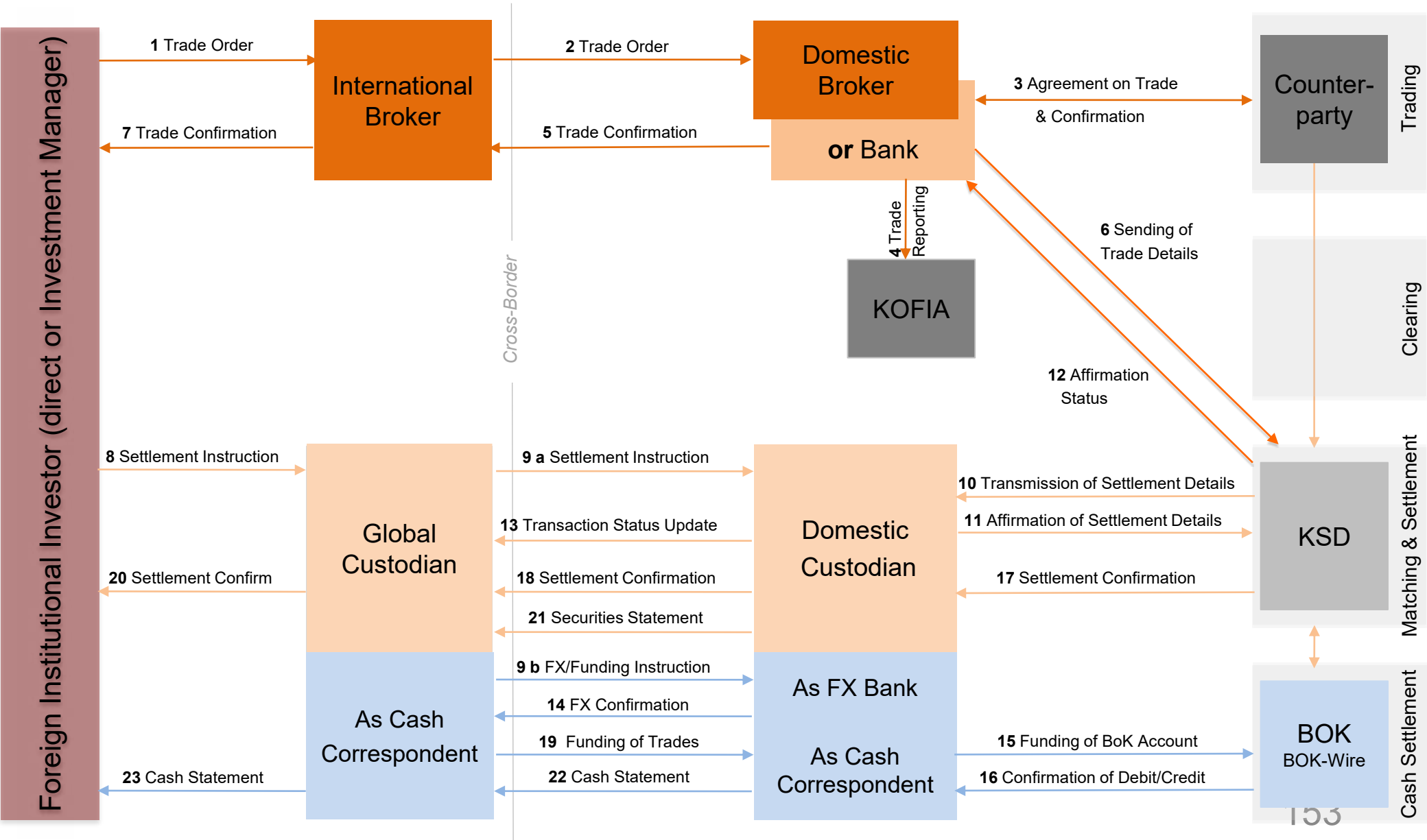
Tax Office

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KR Redemption Payment Flow Corporate Bond

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 it's 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.

KR Bond Transaction Flow for Foreign Investors OTC Market / DVP

Foreign Institutional Investor (direct or Investment Manager)

Cross-Border

International Broker

1 Trade Order
7 Trade Confirmation

Domestic Broker

or Bank

2 Trade Order
5 Trade Confirmation
3 Agreement on Trade & Confirmation
4 Trade Reporting

Counter-party

6 Sending of Trade Details

KOFIA

12 Affirmation Status

Global Custodian

8 Settlement Instruction
20 Settlement Confirm

Domestic Custodian

9 a Settlement Instruction
13 Transaction Status Update
18 Settlement Confirmation
21 Securities Statement
10 Transmission of Settlement Details
11 Affirmation of Settlement Details
17 Settlement Confirmation

KSD

As Cash Correspondent

23 Cash Statement

As FX Bank

As Cash Correspondent

9 b FX/Funding Instruction
14 FX Confirmation
19 Funding of Trades
22 Cash Statement
15 Funding of BoK Account
16 Confirmation of Debit/Credit

BOK
BOK-Wire

Trading

Clearing

Matching & Settlement

Cash Settlement

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KR 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
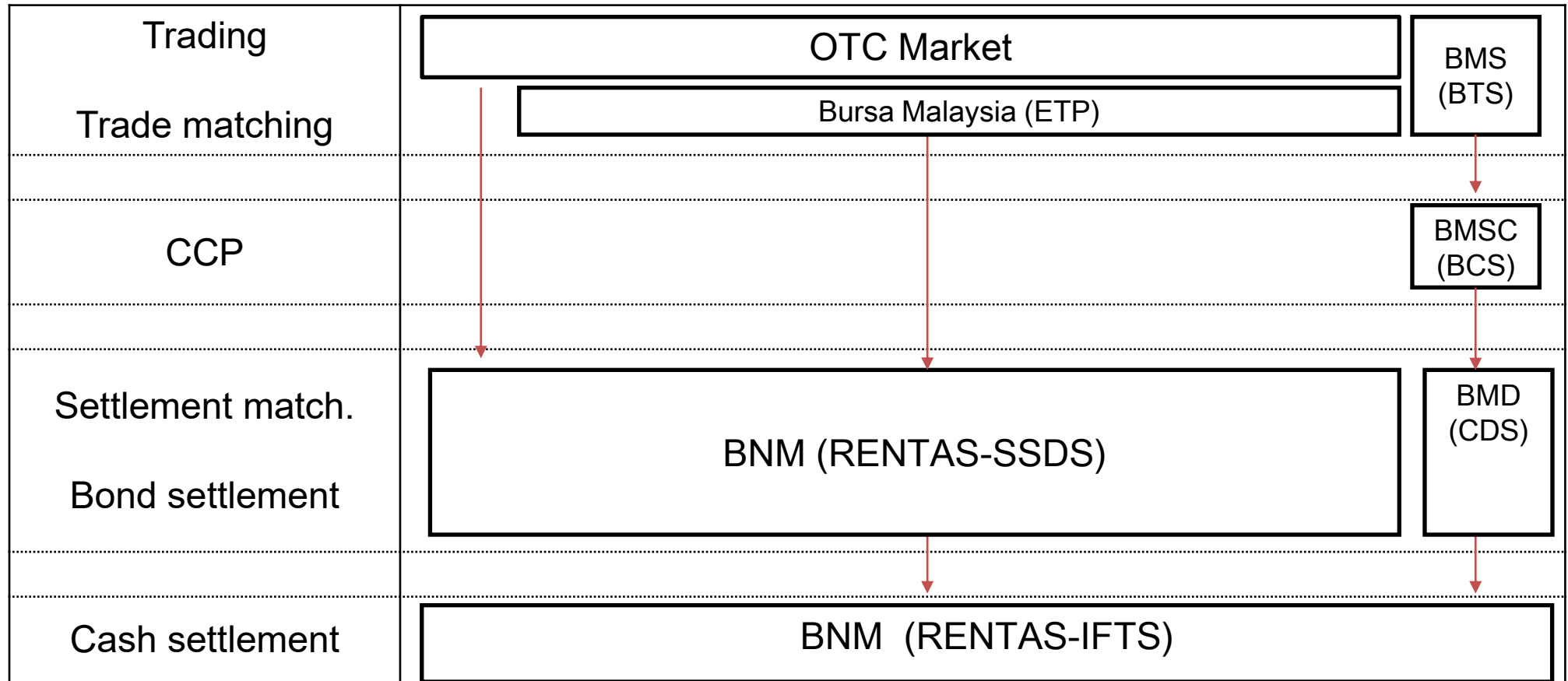
Malaysia (MY)

MY Government Bond Market Infrastructure Diagram

Trading **Trade matching**	OTC Market Bursa Malaysia (ETP)	BMS (BTS)
CCP		BMSC (BCS)
Settlement match. **Bond settlement**	BNM (RENTAS-SSDS)	BMD (CDS)
Cash settlement	BNM (RENTAS-IFTS)	

ETP – Electronic Trading Platform   BNM - Bank Negara Malaysia
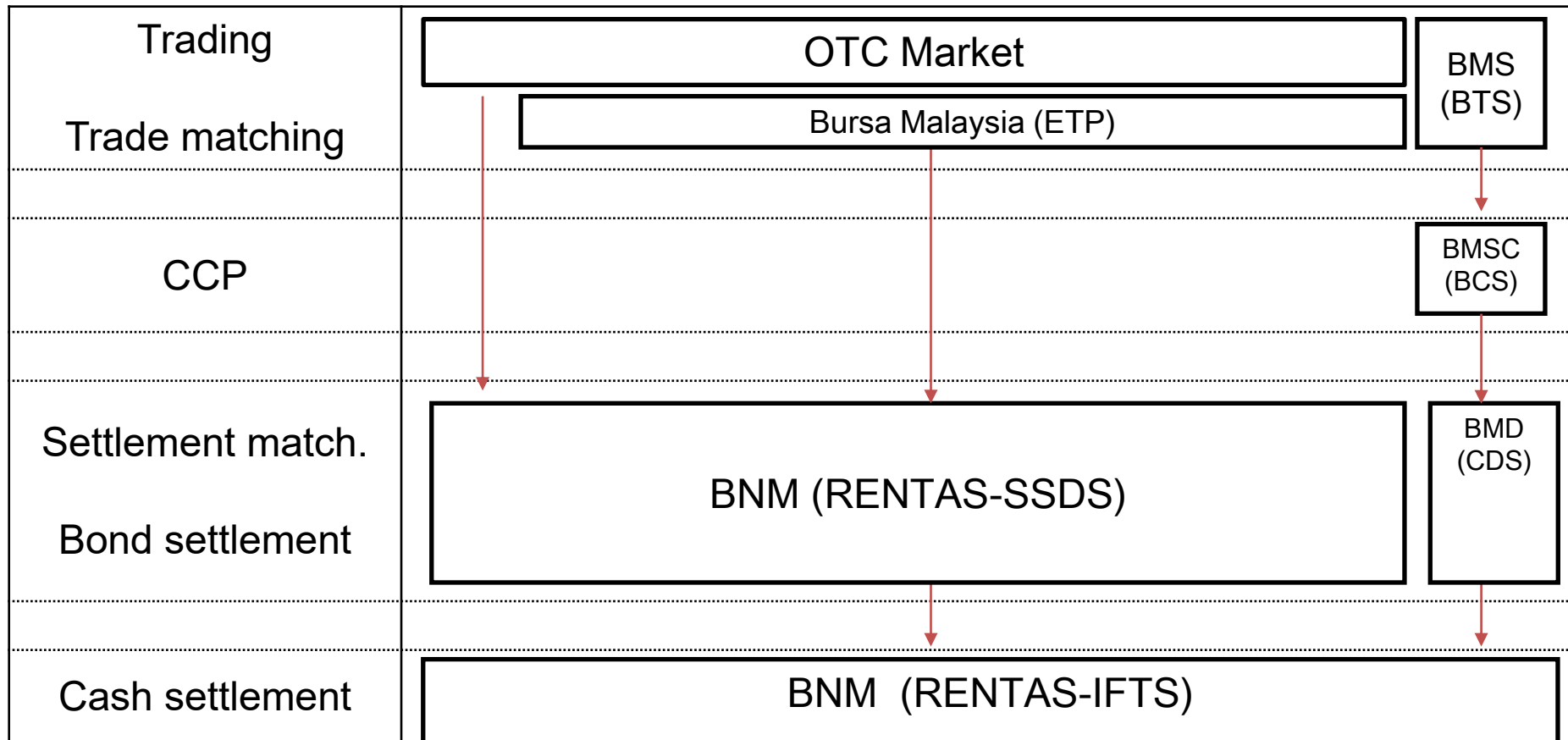RENTAS – Real-time Electronic Transfer of Funds and Securities
BMS – Bursa Malaysia Securities   BTS – Bursa Trade System
BMSC – Bursa Malaysia Securities Clearing   BCS – Bursa Clearing & Settlement System
SSDS – Scripless Securities Depository System   BMD – Bursa Malaysia Depository
CDS – Central Depository System   IFTS – Interbank Funds Transfer System

MY Corporate Bond Market Infrastructure Diagram

Trading	OTC Market	**BMS (BTS)**
Trade matching	Bursa Malaysia (ETP)	
CCP		**BMSC (BCS)**
Settlement match. **Bond settlement**	BNM (RENTAS-SSDS)	**BMD (CDS)**
Cash settlement	BNM (RENTAS-IFTS)	

ETP – Electronic Trading Platform   BNM - Bank Negara Malaysia
RENTAS – Real-time Electronic Transfer of Funds and Securities
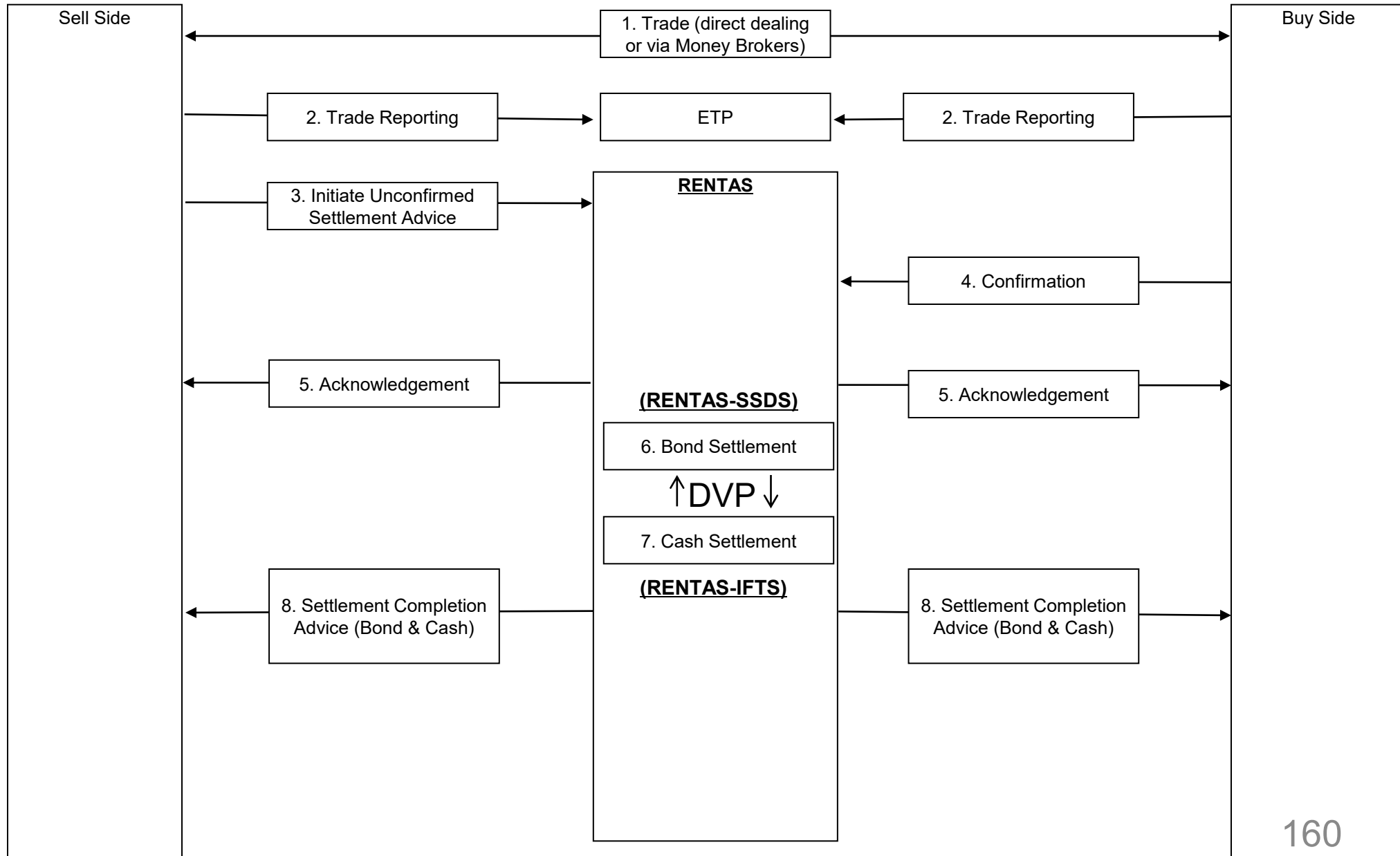BMS – Bursa Malaysia Securities   BTS – Bursa Trade System
BMSC – Bursa Malaysia Securities Clearing   BCS – Bursa Clearing & Settlement System
SSDS – Scripless Securities Depository System   BMD – Bursa Malaysia Depository
CDS – Central Depository System   IFTS – Interbank Funds Transfer System

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MY Government Bond Transaction Flow for Domestic Trades (OTC)

Sell Side

Buy Side

1. Trade (direct dealing or via Money Brokers)

2. Trade Reporting → ETP ← 2. Trade Reporting

3. Initiate Unconfirmed Settlement Advice

RENTAS

4. Confirmation

5. Acknowledgement

(RENTAS-SSDS)

6. Bond Settlement

↑DVP↓

7. Cash Settlement

(RENTAS-IFTS)

5. Acknowledgement

8. Settlement Completion Advice (Bond & Cash)

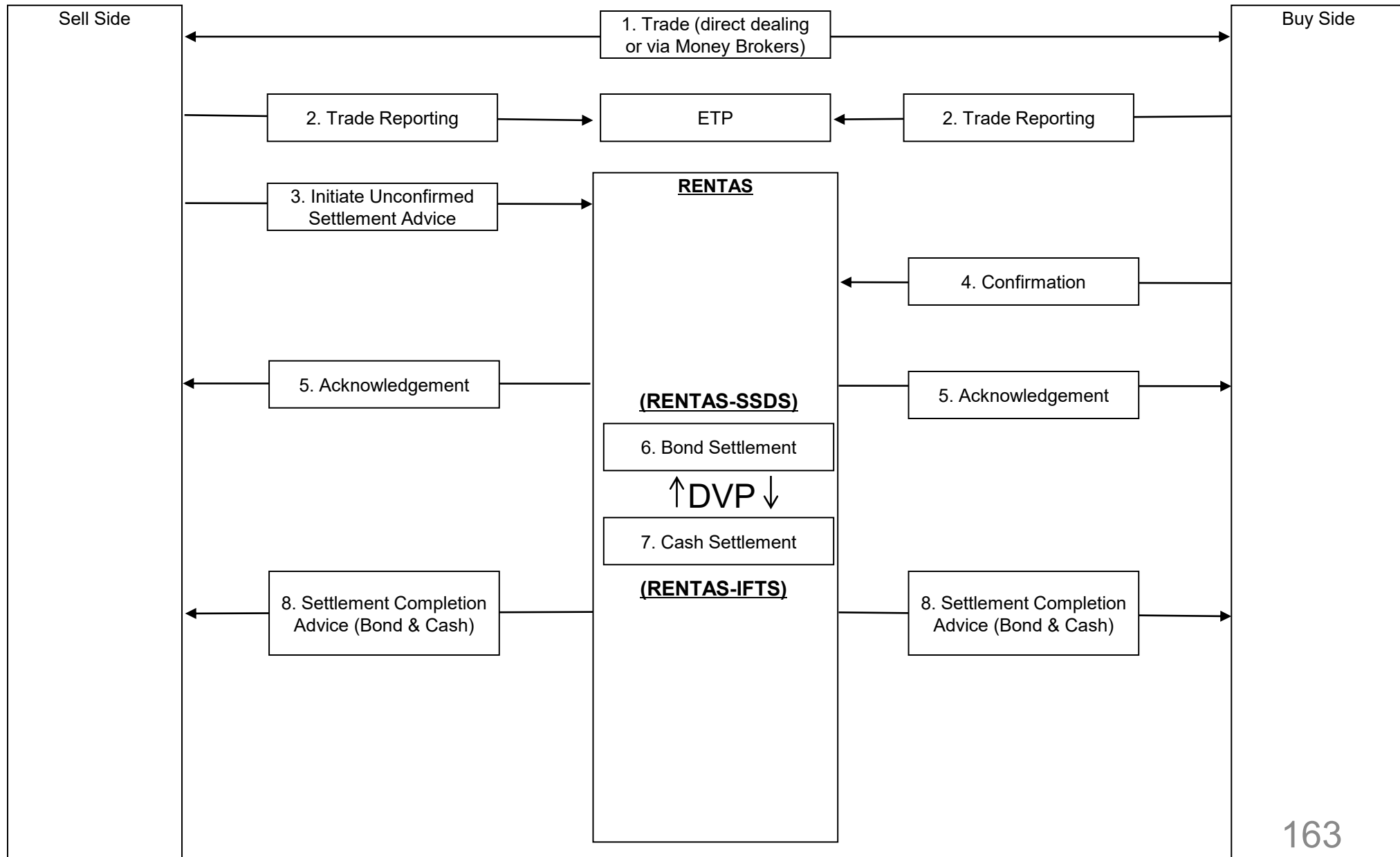8. Settlement Completion Advice (Bond & Cash)

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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.
6.7 On settlement date, bond and cash are settled on DVP basis.
8. Sell side and buy side access Report menu of RENTAS and confirms report of bond settlement and cash settlement.

MY Corporate Bond Transaction Flow for Domestic Trades

Sell Side			Buy Side

1. Trade (direct dealing or via Money Brokers) ←→

2. Trade Reporting → **ETP** ← **2. Trade Reporting**

RENTAS

3. Initiate Unconfirmed Settlement Advice →

4. Confirmation ←

(RENTAS-SSDS)

← **5. Acknowledgement**   **5. Acknowledgement** →

6. Bond Settlement

↑DVP↓

7. Cash Settlement

(RENTAS-IFTS)

← **8. Settlement Completion Advice (Bond & Cash)**   **8. Settlement Completion Advice (Bond & Cash)** →
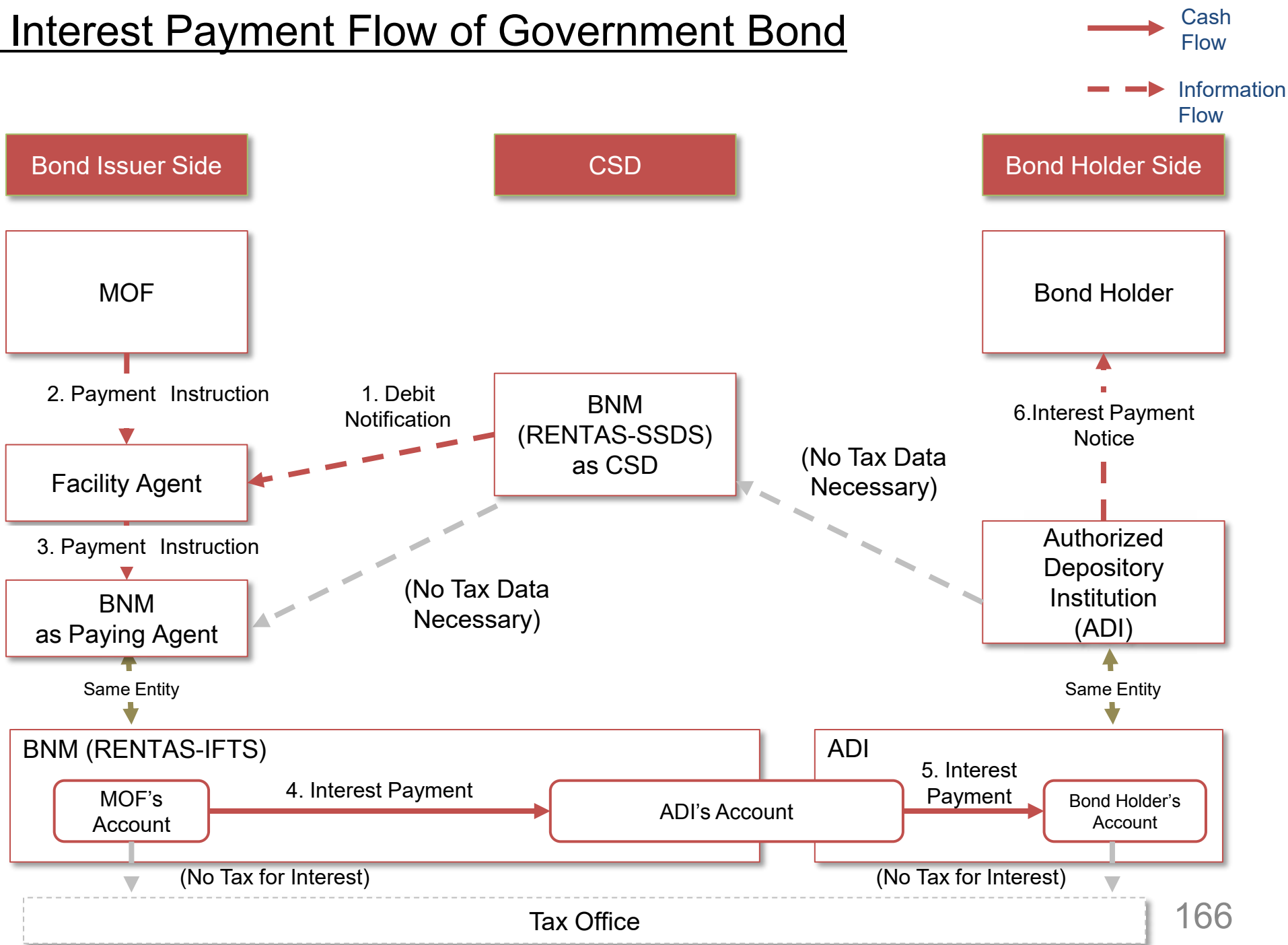
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MY Corporate Bond Transaction Flow for Domestic Trades

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 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.
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6.7 On settlement date, bond and cash are settled on DVP basis.
8. Sell side and buy side access Report menu of RENTAS and confirms report of Bond settlement and cash settlement.

MY Interest Payment Flow of Government Bond

→ Cash Flow

⇢ Information Flow

Bond Issuer Side

CSD

Bond Holder Side

MOF

Bond Holder

2. Payment Instruction

1. Debit Notification

BNM (RENTAS-SSDS) as CSD

6. Interest Payment Notice

Facility Agent

(No Tax Data Necessary)

3. Payment Instruction

Authorized Depository Institution (ADI)

BNM as Paying Agent

(No Tax Data Necessary)

Same Entity

Same Entity

BNM (RENTAS-IFTS)

ADI

MOF's Account

4. Interest Payment

ADI's Account

5. Interest Payment

Bond Holder's Account

(No Tax for Interest)
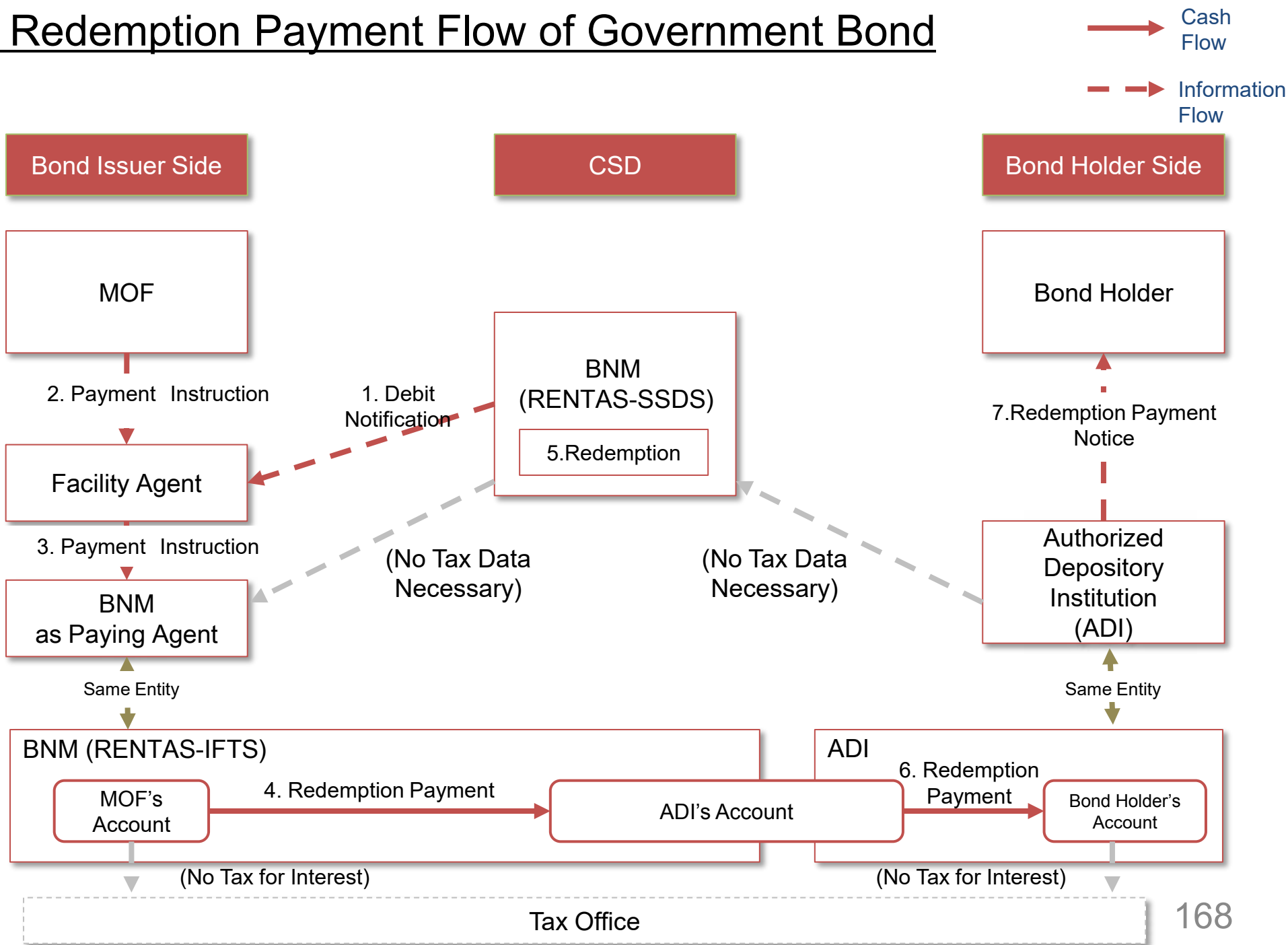
(No Tax for Interest)

Tax Office

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MY Interest Payment Flow of Government Bond

Process of Interest 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 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

→ Cash Flow

--→ Information Flow

Bond Issuer Side

CSD

Bond Holder Side

MOF

BNM (RENTAS-SSDS)

5.Redemption

Bond Holder

2. Payment Instruction

1. Debit Notification

7.Redemption Payment Notice

Facility Agent

3. Payment Instruction

(No Tax Data Necessary)

(No Tax Data Necessary)

Authorized Depository Institution (ADI)

BNM as Paying Agent

Same Entity

Same Entity

BNM (RENTAS-IFTS)

MOF's Account

4. Redemption Payment

ADI's Account

6. Redemption Payment

ADI

Bond Holder's Account

(No Tax for Interest)

(No Tax for Interest)

Tax Office

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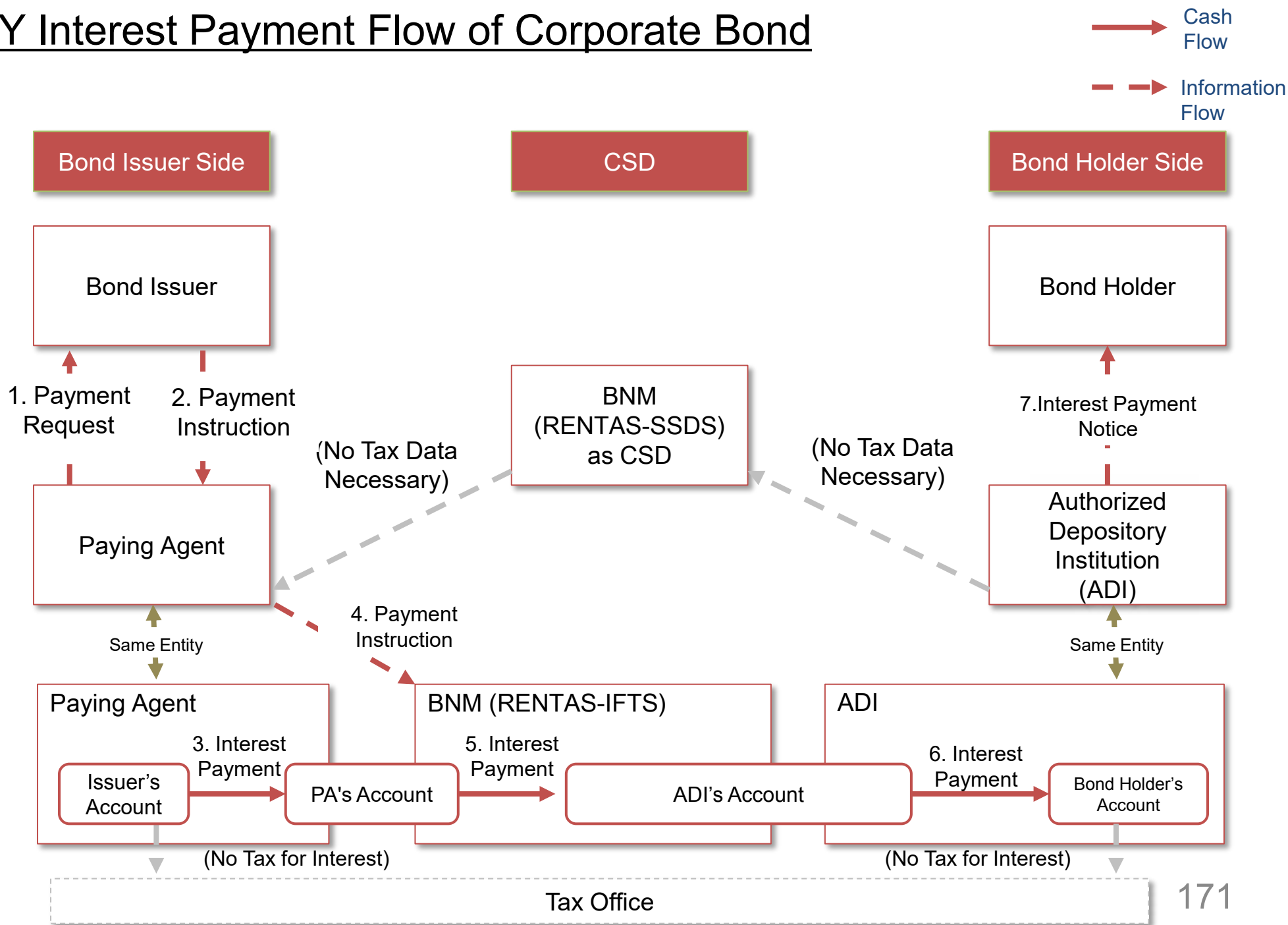# MY Redemption Payment Flow of Government Bond

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.

MY Interest Payment Flow of Corporate Bond

→ Cash Flow

⇢ Information Flow

Bond Issuer Side | **CSD** | **Bond Holder Side**

Bond Issuer

1. Payment Request
2. Payment Instruction

Paying Agent

BNM (RENTAS-SSDS) as CSD

(No Tax Data Necessary)

Bond Holder

7. Interest Payment Notice

Authorized Depository Institution (ADI)

(No Tax Data Necessary)

Same Entity

4. Payment Instruction

Same Entity

Paying Agent

Issuer's Account — 3. Interest Payment → PA's Account

BNM (RENTAS-IFTS)

5. Interest Payment → ADI's Account

ADI

6. Interest Payment → Bond Holder's Account

(No Tax for Interest)

(No Tax for Interest)
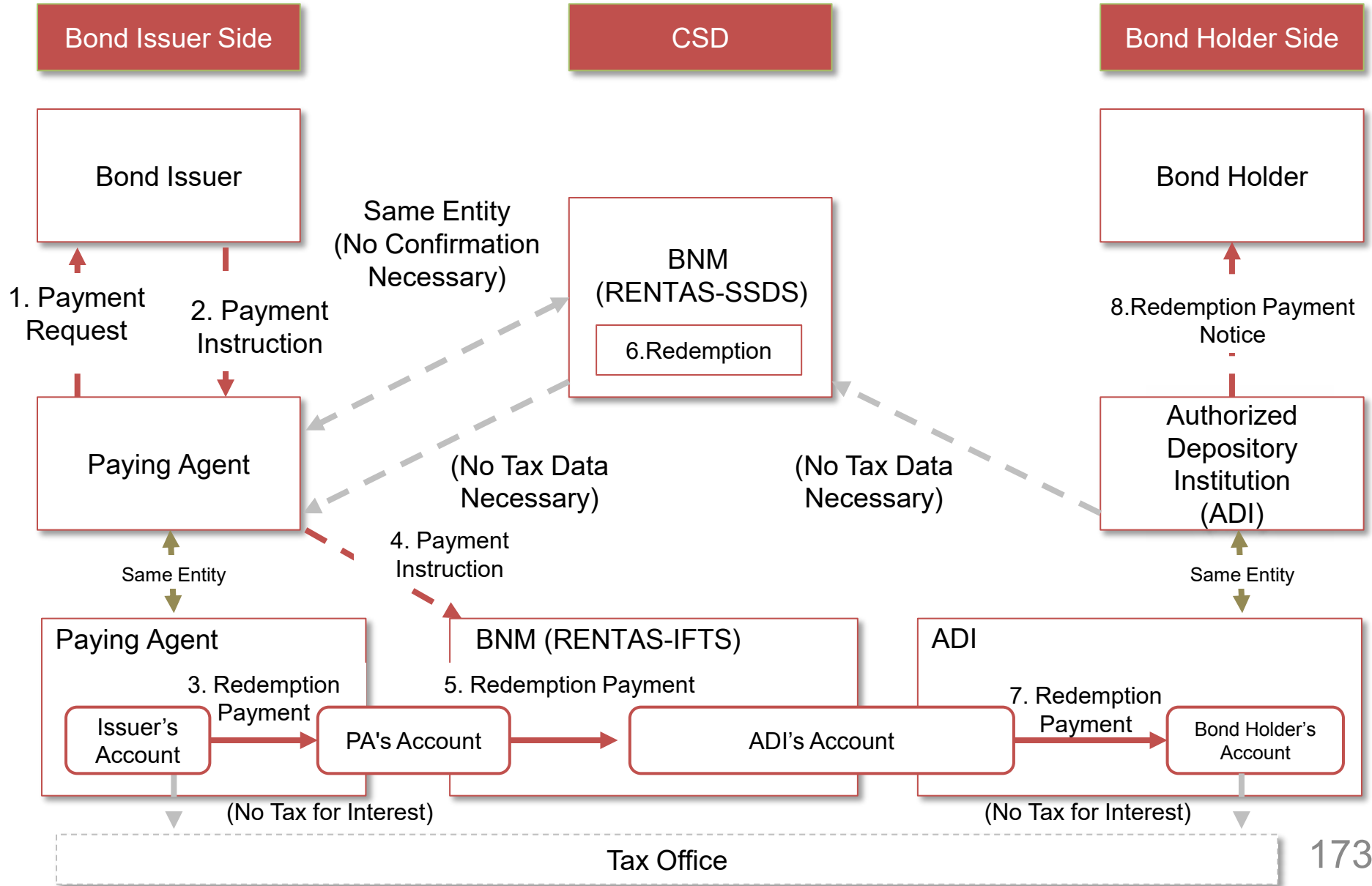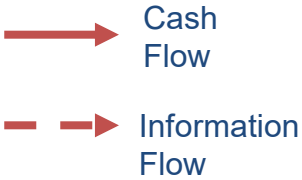
Tax Office

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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

→ Cash Flow

⇢ Information Flow

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

1. Payment Request

2. Payment Instruction

Same Entity (No Confirmation Necessary)

BNM (RENTAS-SSDS)

6. Redemption

Bond Holder

8. Redemption Payment Notice

Paying Agent

(No Tax Data Necessary)

(No Tax Data Necessary)

Authorized Depository Institution (ADI)

Same Entity

4. Payment Instruction

Same Entity

Paying Agent

3. Redemption Payment

Issuer's Account

PA's Account

BNM (RENTAS-IFTS)

5. Redemption Payment

ADI's Account

ADI

7. Redemption Payment

Bond Holder's Account

(No Tax for Interest)

(No Tax for Interest)

Tax Office

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MY Redemption Payment Flow of Corporate Bond
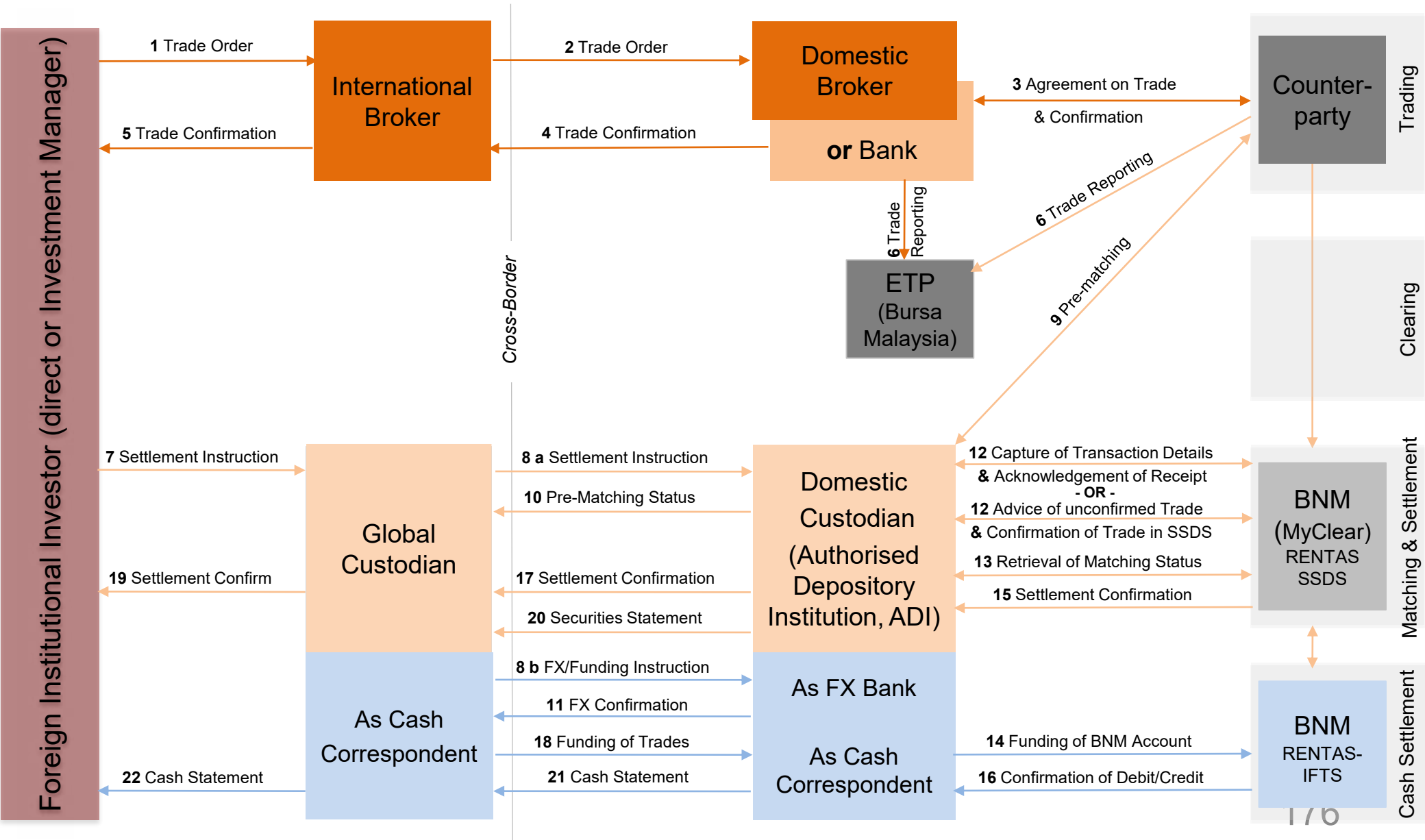
Process of Redemption Payment

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.

MY Bond Transaction Flow for Foreign Investors OTC Market / DVP

Trading

- 1 Trade Order
- 2 Trade Order
- 3 Agreement on Trade & Confirmation
- 4 Trade Confirmation
- 5 Trade Confirmation
- 6 Trade Reporting
- 6 Trade Reporting
- 9 Pre-matching

International Broker

Domestic Broker or Bank

Counter-party

ETP (Bursa Malaysia)

Clearing

Foreign Institutional Investor (direct or Investment Manager)

Cross-Border

Global Custodian

Domestic Custodian (Authorised Depository Institution, ADI)

BNM (MyClear) RENTAS SSDS

Matching & Settlement

- 7 Settlement Instruction
- 8 a Settlement Instruction
- 10 Pre-Matching Status
- 12 Capture of Transaction Details & Acknowledgement of Receipt - OR - 12 Advice of unconfirmed Trade & Confirmation of Trade in SSDS
- 13 Retrieval of Matching Status
- 19 Settlement Confirm
- 17 Settlement Confirmation
- 15 Settlement Confirmation
- 20 Securities Statement

As Cash Correspondent

As FX Bank

As Cash Correspondent

BNM RENTAS-IFTS

Cash Settlement

- 8 b FX/Funding Instruction
- 11 FX Confirmation
- 18 Funding of Trades
- 14 Funding of BNM Account
- 22 Cash Statement
- 21 Cash Statement
- 16 Confirmation of Debit/Credit

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MY Bond Transaction Flow for Foreign Investors OTC Market / DVP

Trade Date

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

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 (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)

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)
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 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/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)
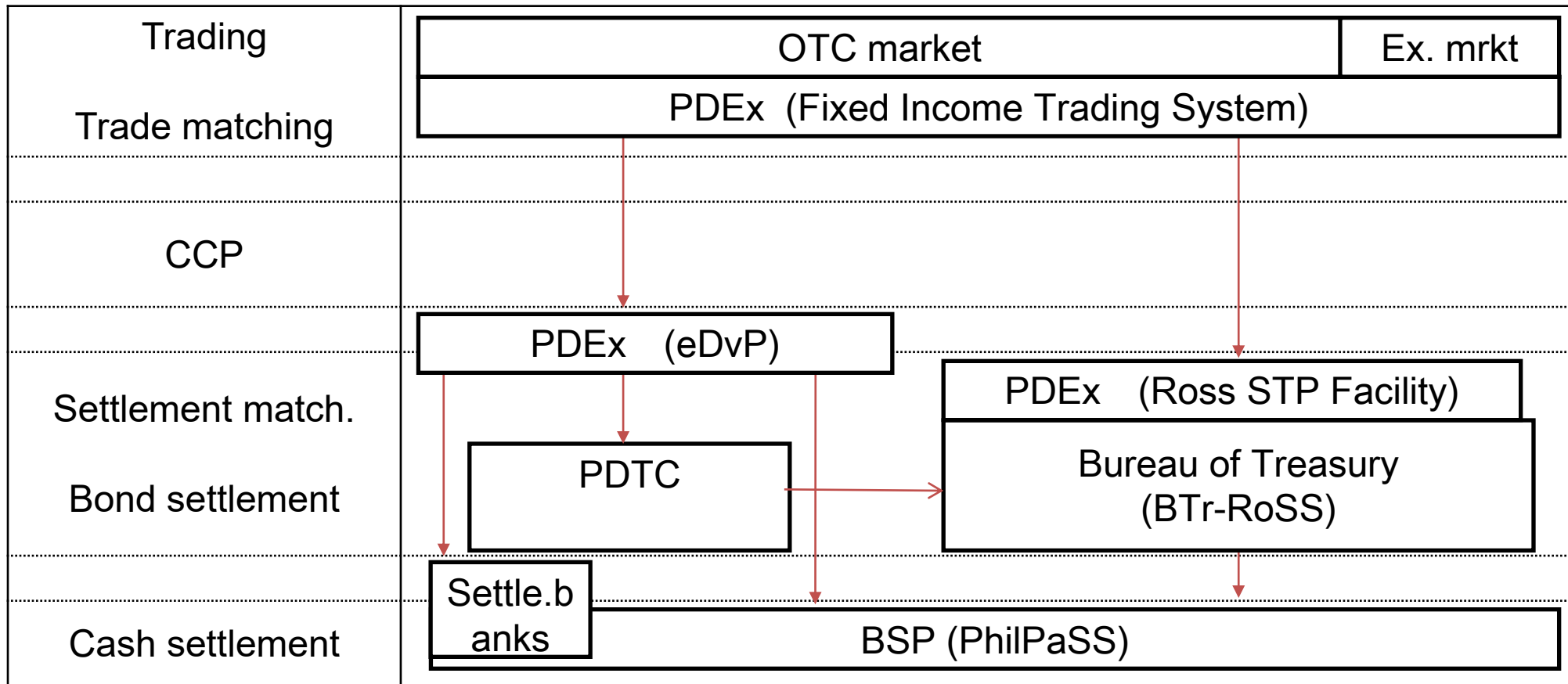
Philippines (PH)

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

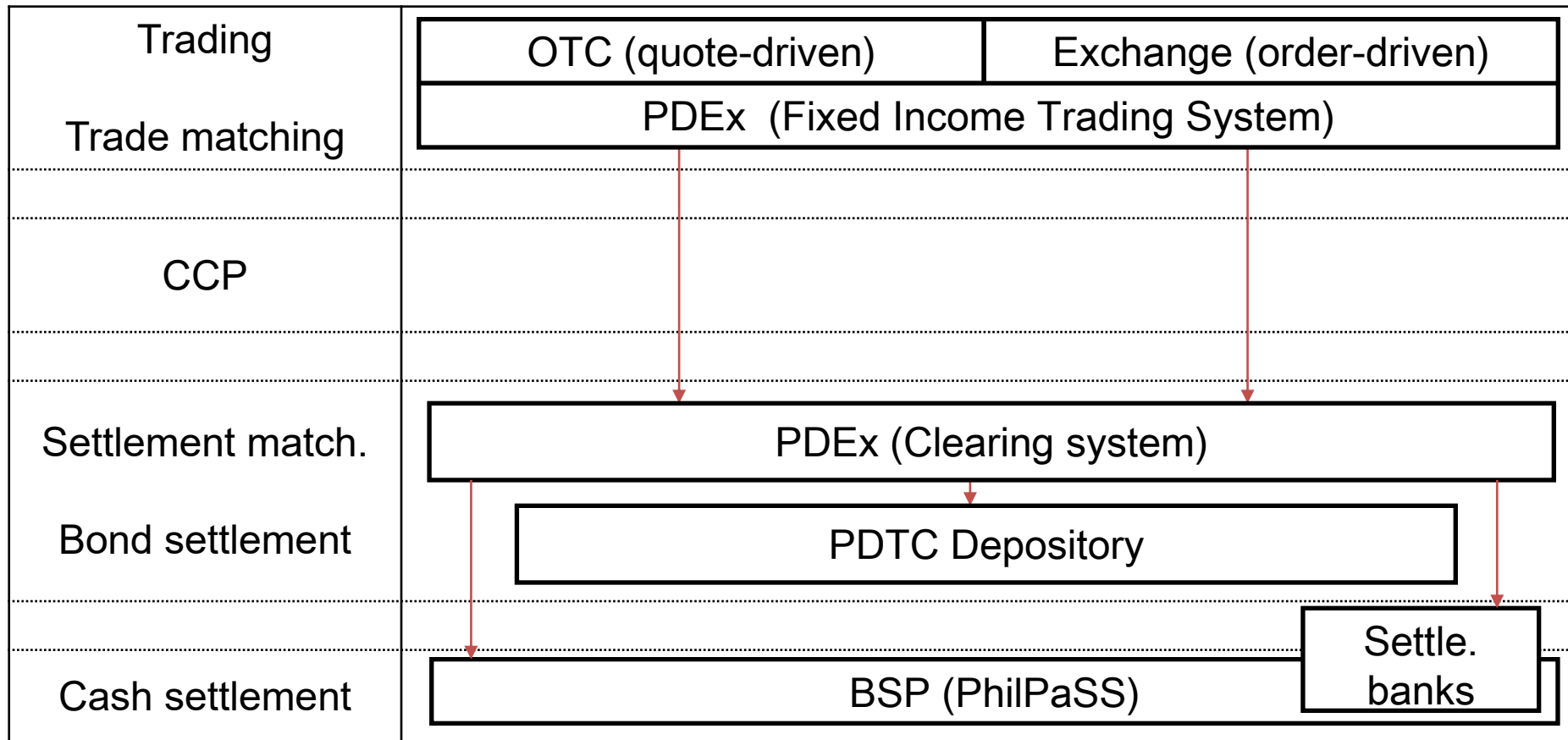# PH Government Bond Market Infrastructure Diagram

Trading	OTC market	Ex. mrkt
Trade matching	PDEx (Fixed Income Trading System)	
CCP		
Settlement match.	PDEx (eDvP) → PDTC →	PDEx (Ross STP Facility)
Bond settlement		Bureau of Treasury (BTr-RoSS)
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

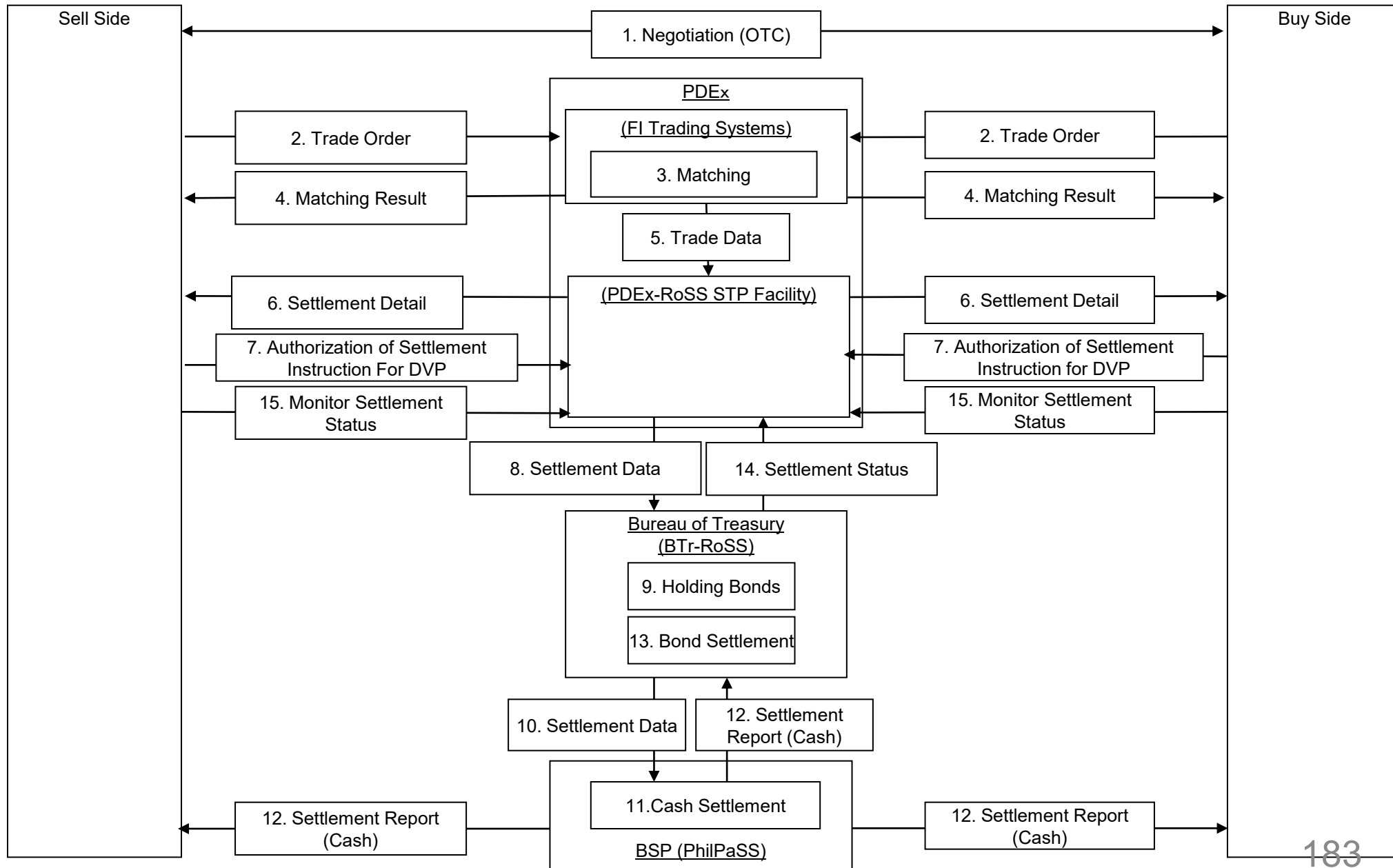PhilPaSS – Philippine Payments and Settlement System

Cash settlement by settlement banks is for government and corporate bonds.

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PH Corporate Bond Market Infrastructure Diagram

Trading	OTC (quote-driven)	Exchange (order-driven)
Trade matching	PDEx (Fixed Income Trading System)	
CCP		
Settlement match.	PDEx (Clearing system)	
Bond settlement	PDTC Depository	
Cash settlement	BSP (PhilPaSS)	Settle. banks

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.

PH Government Bond Transaction Flow for Domestic Trades GSEDs Market / DVP

*GSED: Government Securities Eligible Dealer

Sell Side

Buy Side

1. Negotiation (OTC)

PDEx

(FI Trading Systems)

2. Trade Order

3. Matching

2. Trade Order

4. Matching Result

4. Matching Result

5. Trade Data

(PDEx-RoSS STP Facility)

6. Settlement Detail

6. Settlement Detail

7. Authorization of Settlement Instruction For DVP

7. Authorization of Settlement Instruction for DVP

15. Monitor Settlement Status

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)

12. Settlement Report (Cash)

12. Settlement Report (Cash)

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PH Government Bond Transaction Flow for Domestic Trades GSEDs Market / DVP

Exchange Market-GSEDs

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.

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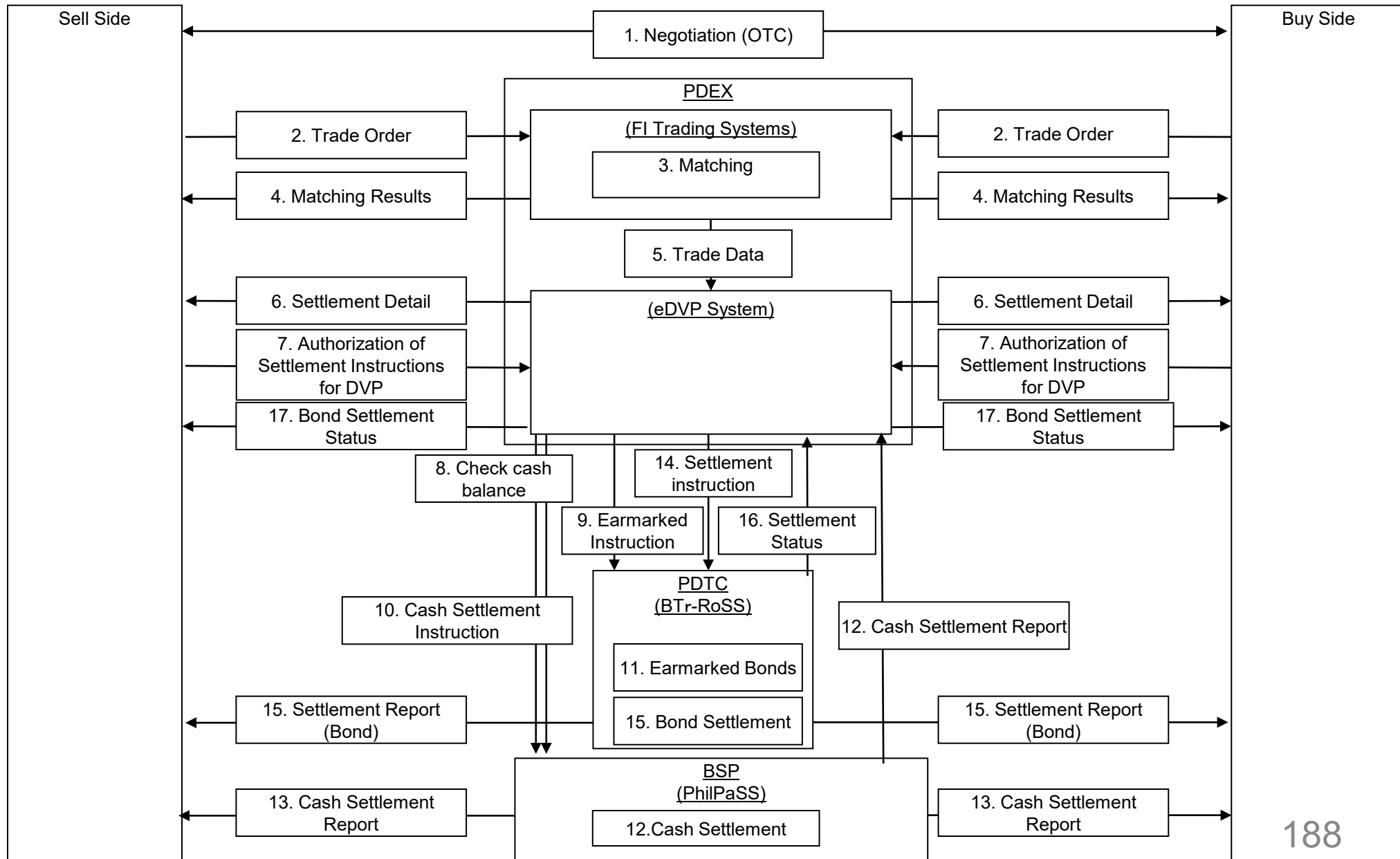
*GSED: Government Securities Eligible Dealer

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PH Government Bond Transaction Flow for Domestic Trades non-GSEDs Market / DVP

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.
8. Check cash balance of buy side in PhilPass
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.

PH Corporate Bond Transaction Flow for Domestic Trades

Sell Side

Buy Side

1. Negotiation (OTC)

PDEX

(FI Trading Systems)

2. Trade Order

3. Matching

4. Matching Results

5. Trade Data

(eDVP System)

6. Settlement Detail

7. Authorization of Settlement Instructions for DVP

17. Bond Settlement Status

8. Check cash balance

14. Settlement instruction

9. Earmarked Instruction

16. Settlement Status

10. Cash Settlement Instruction

PDTC (BTr-RoSS)

11. Earmarked Bonds

15. Bond Settlement

12. Cash Settlement Report

15. Settlement Report (Bond)

BSP (PhilPaSS)

12. Cash Settlement

13. Cash Settlement Report

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.
8. Check cash balance of buy side in PhilPass
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.

PH Interest Payment Flow of Government Bond

revised

— ▶ Information Flow

Bond Issuer Side

CSD

Bond Holder Side

BTr

Same Entity

BTr

Same Entity

Same Entity

BTr: RoSS

Bond Holder

4.Interest Payment Notice (only PDTC and custodians)

ROSS Participants (QI, Retail, PDTC and Custodian)

Same Entity

1. Payment Instruction

BSP

BTr's

2. Interest Payment through RDDA （net）

ROSS participant/ Settlement Bank

ROSS participant/Settlement Bank

3. Interest Payment

ROSS Participants' CSA/ Bond Holders' a/c

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

Tax Office

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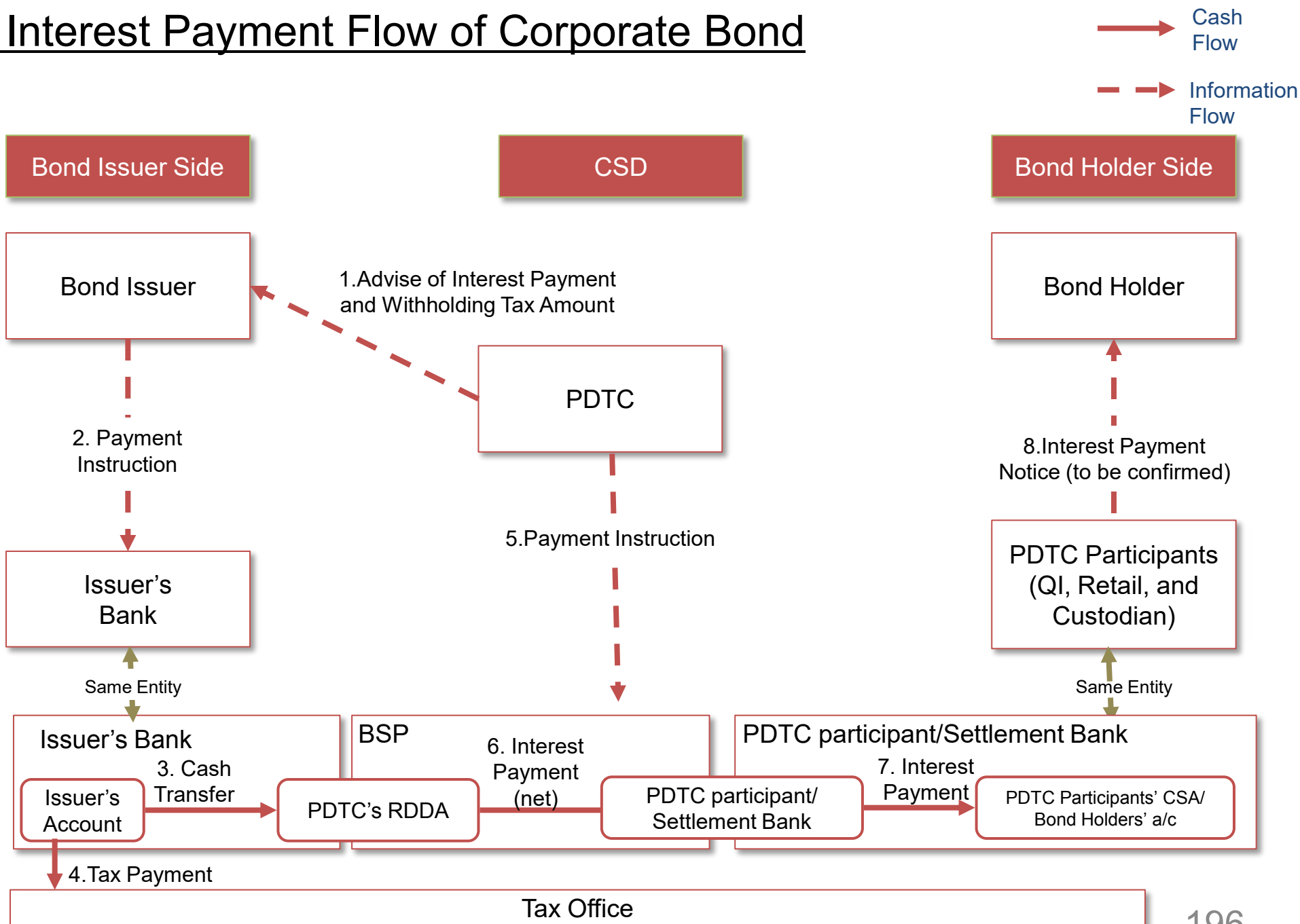
PH Interest Payment Flow of Government Bond

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 deductable unit), and 20%(QII).

Tax tracking system PDEx 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
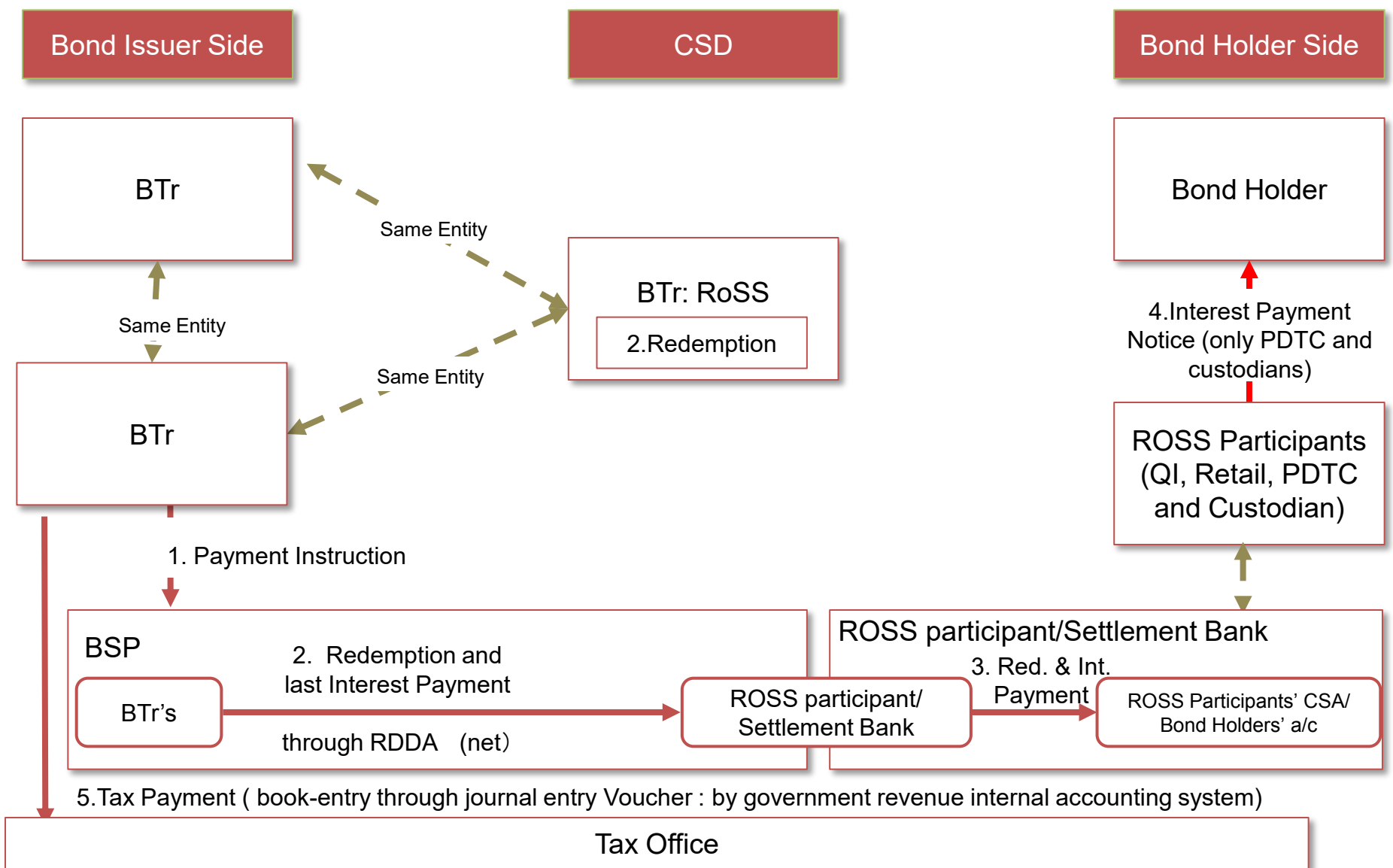
revised

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

BTr

Same Entity

Same Entity

BTr

BTr: RoSS

2.Redemption

Same Entity

Bond Holder

4.Interest Payment Notice (only PDTC and custodians)

ROSS Participants (QI, Retail, PDTC and Custodian)

1. Payment Instruction

BSP

BTr's

2. Redemption and last Interest Payment

through RDDA (net)

ROSS participant/ Settlement Bank

ROSS participant/Settlement Bank

3. Red. & Int. Payment

ROSS Participants' CSA/ Bond Holders' a/c

5.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 Philipinas   RDDA: Regular Demand Deposit Account
CSA: Cash Settlement Account

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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.

PH Interest Payment Flow of Corporate Bond

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

1.Advise of Interest Payment and Withholding Tax Amount

PDTC

Bond Holder

2. Payment Instruction

5.Payment Instruction

8.Interest Payment Notice (to be confirmed)

Issuer's Bank

PDTC Participants (QI, Retail, and Custodian)

Same Entity

Same Entity

Issuer's Bank

BSP

PDTC participant/Settlement Bank

Issuer's Account

3. Cash Transfer

PDTC's RDDA

6. Interest Payment (net)

PDTC participant/ Settlement Bank

7. Interest Payment

PDTC Participants' CSA/ Bond Holders' a/c
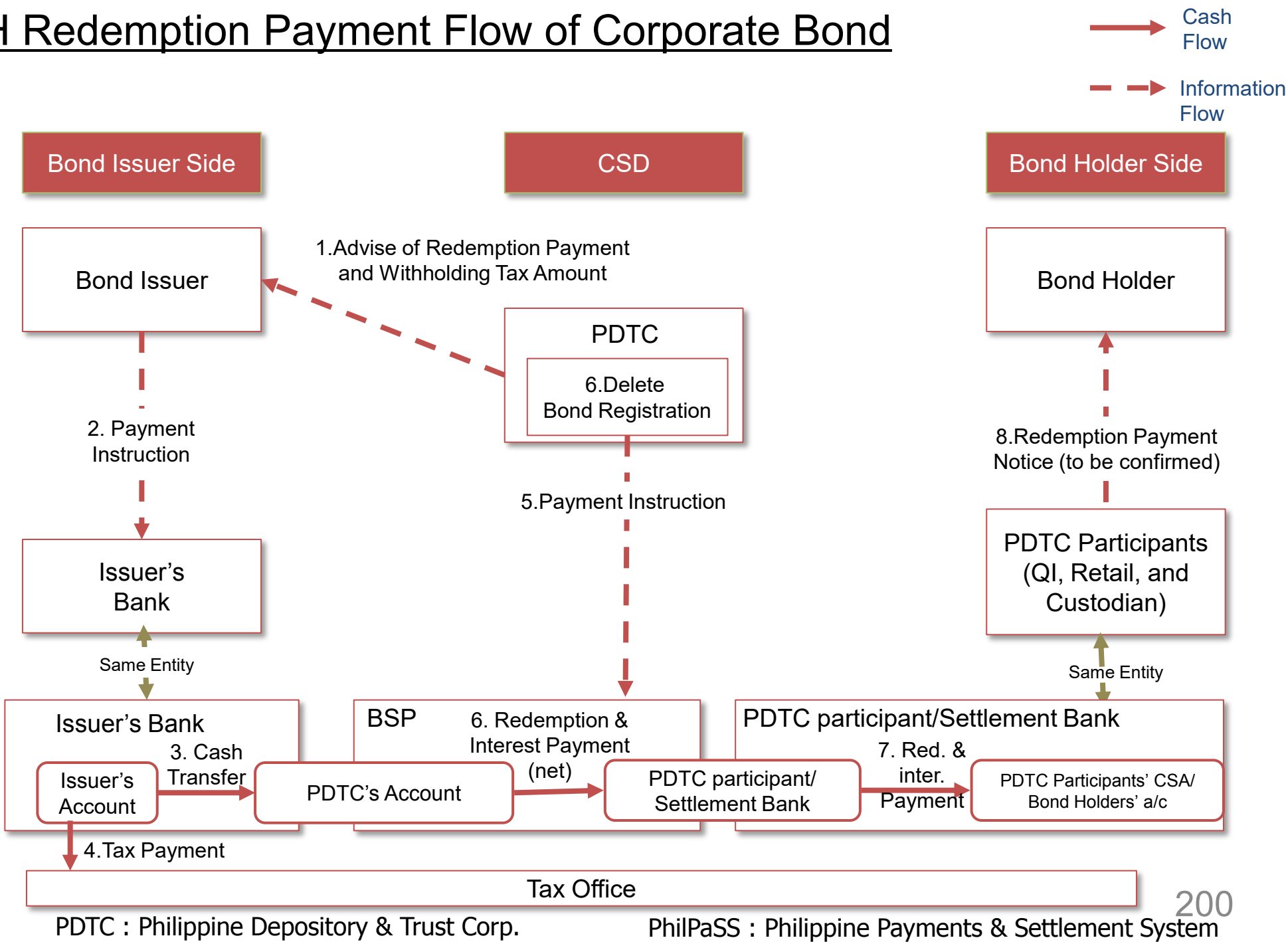
4.Tax Payment

Tax Office

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PDTC : Philippine Depository & Trust Corp.

PH Interest Payment Flow of Corporate Bond

Process of Interest Payment

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 it's 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
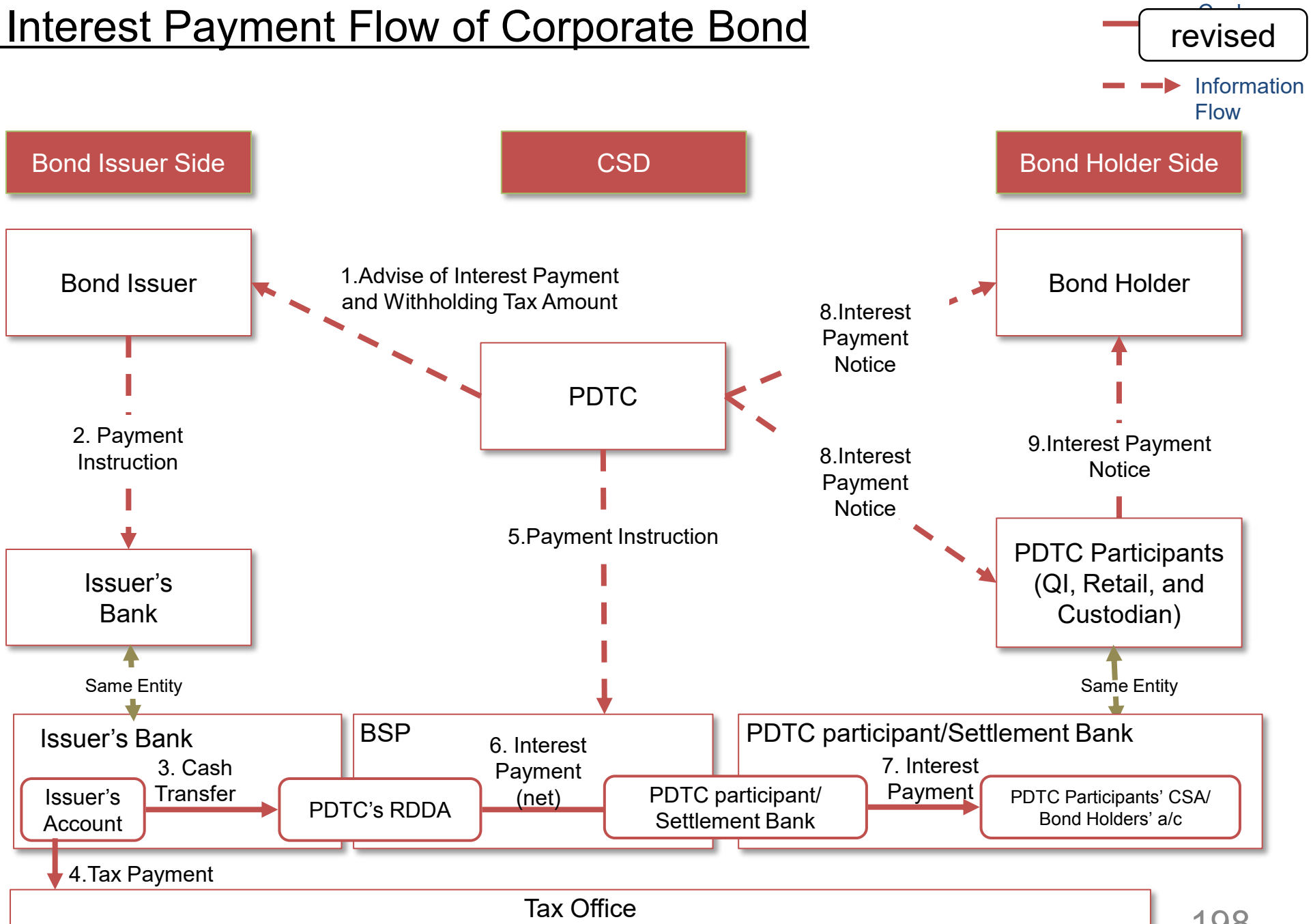
revised

→ Information Flow (dashed)

Bond Issuer Side | **CSD** | **Bond Holder Side**

- Bond Issuer
- 1.Advise of Interest Payment and Withholding Tax Amount
- PDTC
- 8.Interest Payment Notice
- Bond Holder
- 2. Payment Instruction
- 5.Payment Instruction
- 8.Interest Payment Notice
- 9.Interest Payment Notice
- Issuer's Bank
- PDTC Participants (QI, Retail, and Custodian)
- Same Entity
- Same Entity
- Issuer's Bank
  - Issuer's Account
  - 3. Cash Transfer
- BSP
  - PDTC's RDDA
  - 6. Interest Payment (net)
- PDTC participant/Settlement Bank
  - PDTC participant/Settlement Bank
  - 7. Interest Payment
  - PDTC Participants' CSA/Bond Holders' a/c
- 4.Tax Payment
- Tax Office

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PDTC : Philippine Depository & Trust Corp.

PH Interest Payment Flow of Corporate Bond

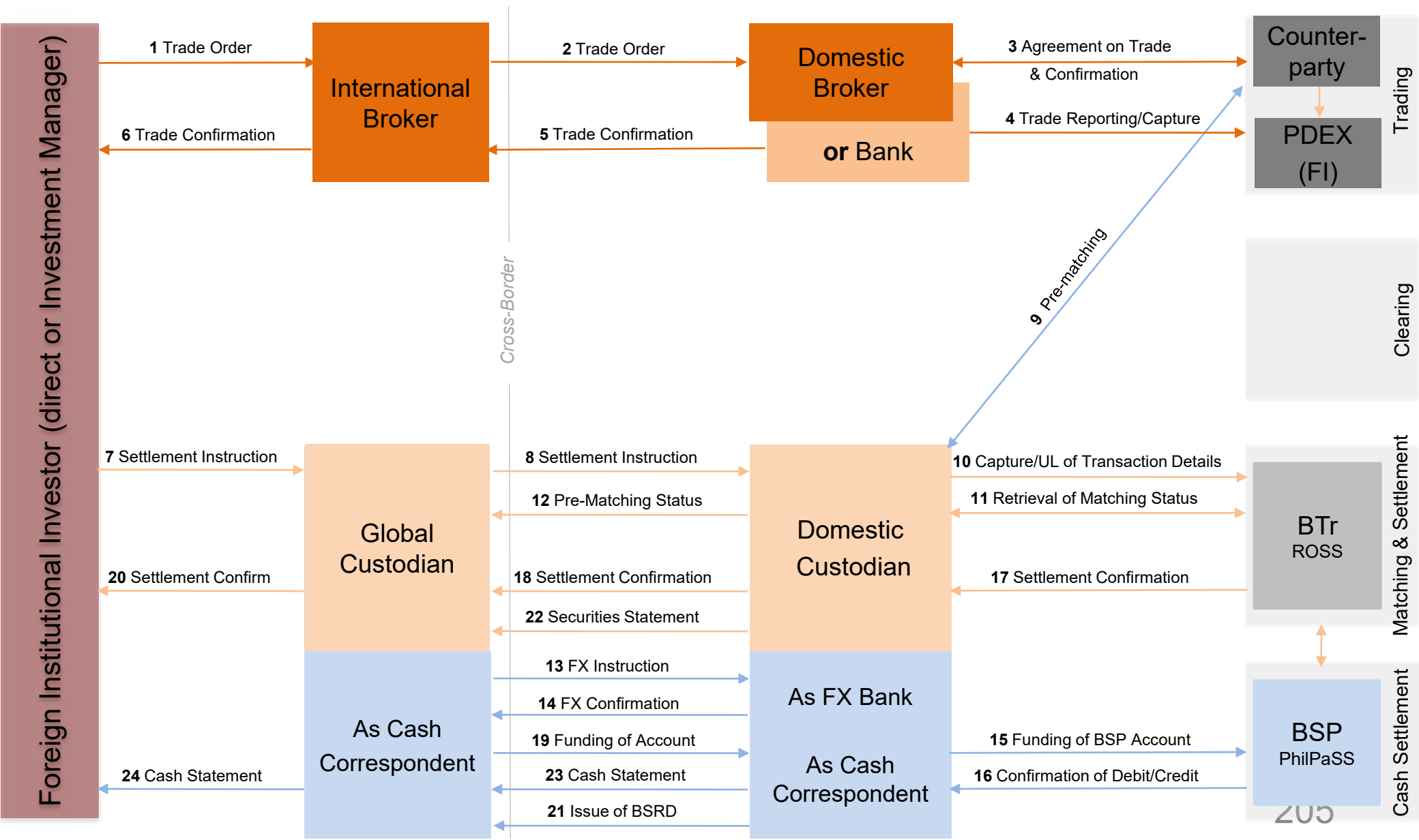## Process of Interest Payment

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 it's 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

Cash Flow →

Information Flow ⇢

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

1.Advise of Redemption Payment and Withholding Tax Amount

PDTC

6.Delete Bond Registration

Bond Holder

2. Payment Instruction

5.Payment Instruction

8.Redemption Payment Notice (to be confirmed)

Issuer's Bank

PDTC Participants (QI, Retail, and Custodian)

Same Entity

Same Entity

Issuer's Bank

Issuer's Account

3. Cash Transfer

BSP

PDTC's Account

6. Redemption & Interest Payment (net)

PDTC participant/Settlement Bank

PDTC participant/ Settlement Bank

7. Red. & inter. Payment

PDTC Participants' CSA/ Bond Holders' a/c

4.Tax Payment

Tax Office

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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 it's 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 it's 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

PDTC : Philippine Depository & Trust Corp.   PhilPaSS : Philippine Payments & Settlement System

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PH Redemption Payment Flow of Corporate Bond

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 it's 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.

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

Foreign Institutional Investor (direct or Investment Manager)

Cross-Border

International Broker

Domestic Broker **or Bank**

Counter-party

PDEX (FI)

Global Custodian

As Cash Correspondent

Domestic Custodian

As FX Bank **As Cash Correspondent**

BTr ROSS

BSP PhilPaSS

- 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

Trading

Clearing

Matching & Settlement

Cash Settlement

PH OTC 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 PDEx system, for price discovery, within 10 mins
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 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

Singapore (SG)

SG Government Bond Market Infrastructure Diagram

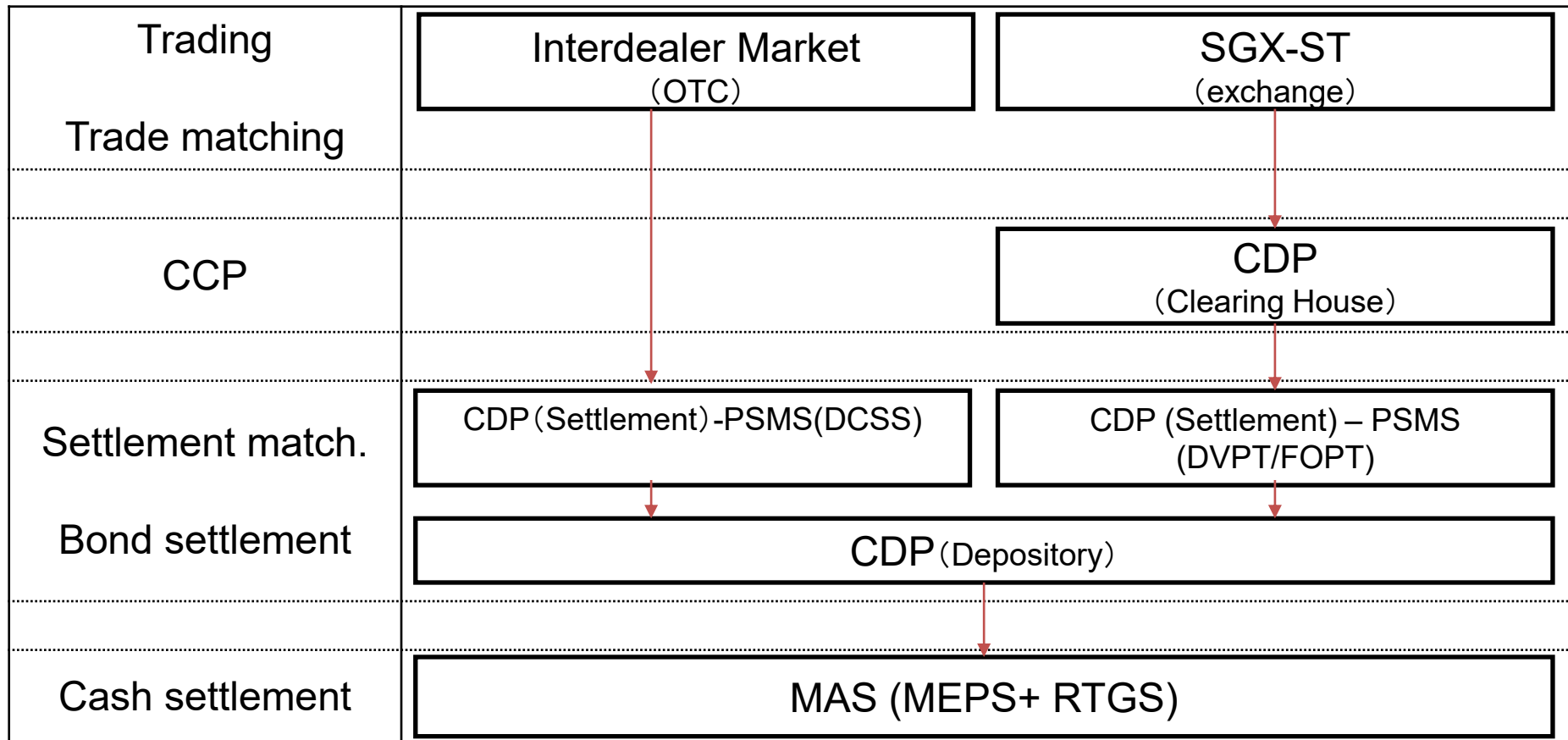|		
Trading **Trade matching**	OTC Market	SGX
CCP		
Settlement match. **Bond settlement**	MAS (MEPS+ SGS)	CDP (DCSS)
Cash settlement	MAS (MEPS+ RTGS)	

SGX – Singapore Exchange Ltd.,
CDP – Central Depository (Pte.) Ltd,
MAS - Monetary Authority of Singapore
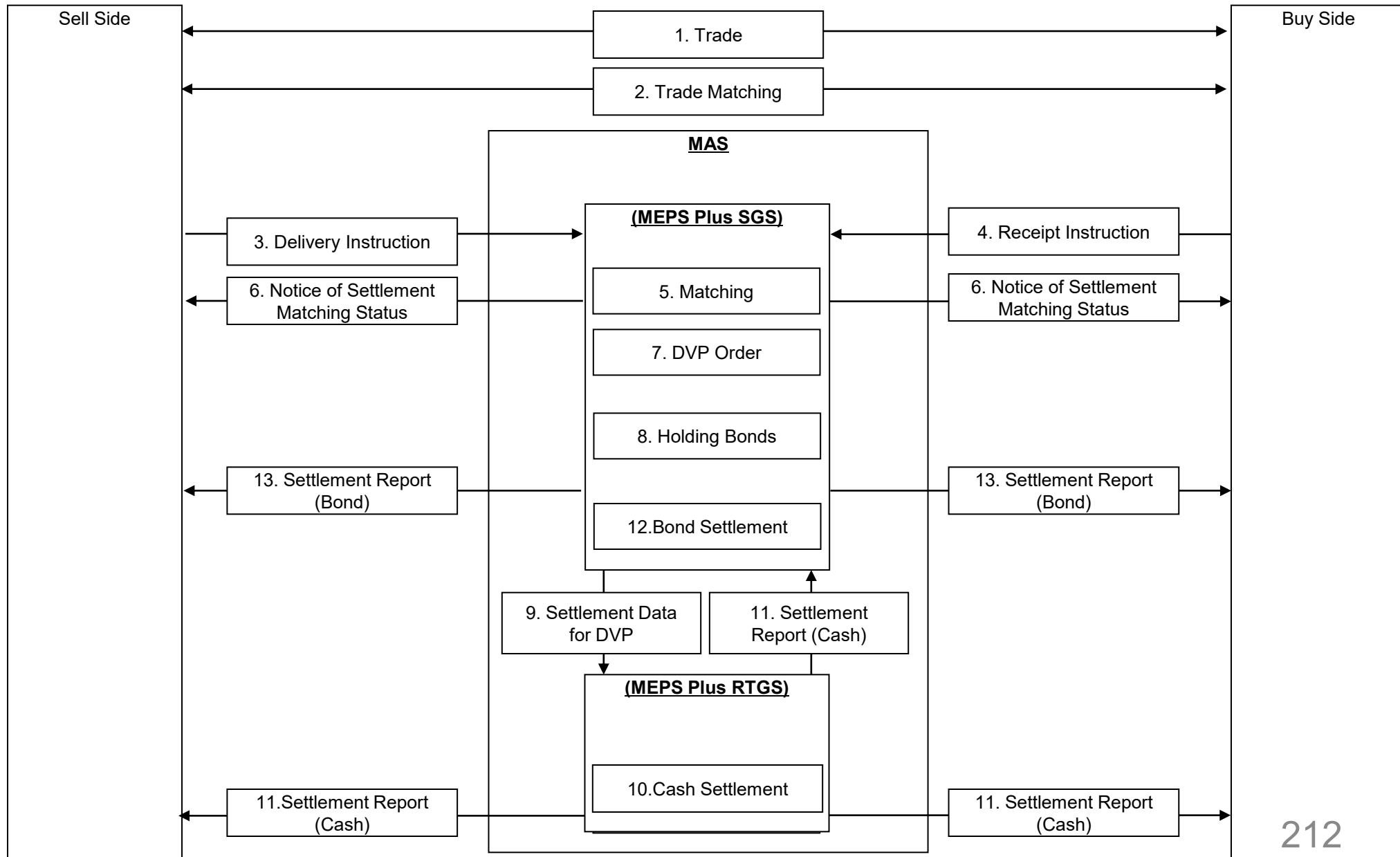DCSS – Debt Securities Clearing and Settlement System
MEPS+ – MAS Electronic Payment System

SG Corporate Bond Market Infrastructure Diagram

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

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 Government Bond Transaction Flow for Domestic Trades

Sell Side

Buy Side

1. Trade

2. Trade Matching

MAS

(MEPS Plus SGS)

3. Delivery Instruction

4. Receipt Instruction

5. Matching

6. Notice of Settlement Matching Status

6. Notice of Settlement Matching Status

7. DVP Order

8. Holding Bonds

13. Settlement Report (Bond)

13. Settlement Report (Bond)

12. Bond Settlement

9. Settlement Data for DVP

11. Settlement Report (Cash)

(MEPS Plus RTGS)

10. Cash Settlement

11. Settlement Report (Cash)

11. Settlement Report (Cash)

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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.

SG Corporate Bond Transaction Flow for Domestic Trades

Selling Client ←————— 1. OTC Trade —————→ **Buying Client**

CDP

PSMS(Pre-settlement Matching System)

Delivering Depository Agent —— 2. Settlement Instruction ——→ **PSMS** ←—— 2. Settlement Instruction —— **Receiving Depository Agent**

3. Match Settlement Instruction

←—— 5. Status —— | 5. Status ——→

3. Settlement Instruction

DCSS(Debt Securities Clearing and Settlement System)

4. Earmark Bonds

9. Transfer Bond

←—— 10. Settlement Confirmation —— | —— 10. Settlement Confirmation ——→

8. Cash Settlement Confirmation

MAS

(MEPS Plus)

Settlement Bank —— 6. Money Settlement Instruction ——→ **MAS** ←—— 6. Money Settlement Instruction —— **Settlement Bank**

7. Cash Settlement

←—— 8. Settlement Report (Money) —— | —— 8. Settlement Report (Money) ——→

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SG Corporate Bond Transaction Flow for Domestic Trades

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.
6. Both sides of settlement banks send money settlement instruction to RTGS system in Central Bank (MAS Electronic Payment System – MEPS).
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.

SG Interest Payment Flow of Government Bond

Cash Flow (solid arrow)

Information Flow (dashed arrow)

Bond Issuer Side	CSD	Bond Holder Side

MOF

MAS as CSD

Bond Holder

Same Entity (No confirmation necessary)

1. Payment Request

2. Fund Request

3. Tax Status Data

9. Interest Payment Notice

MAS as Paying Agent

4. Notification of Payment Details

6. Notification of Payment Details

Custodian

Same Entity

Same Entity

MAS (MEPS+)

Custodian

MOF's Account

5. Interest Payment

Custodian's Account

8. Interest Payment

Bond Holder's Account

7. Tax Payment (Income Tax)

10. Tax Payment (Local Tax)

Tax Office

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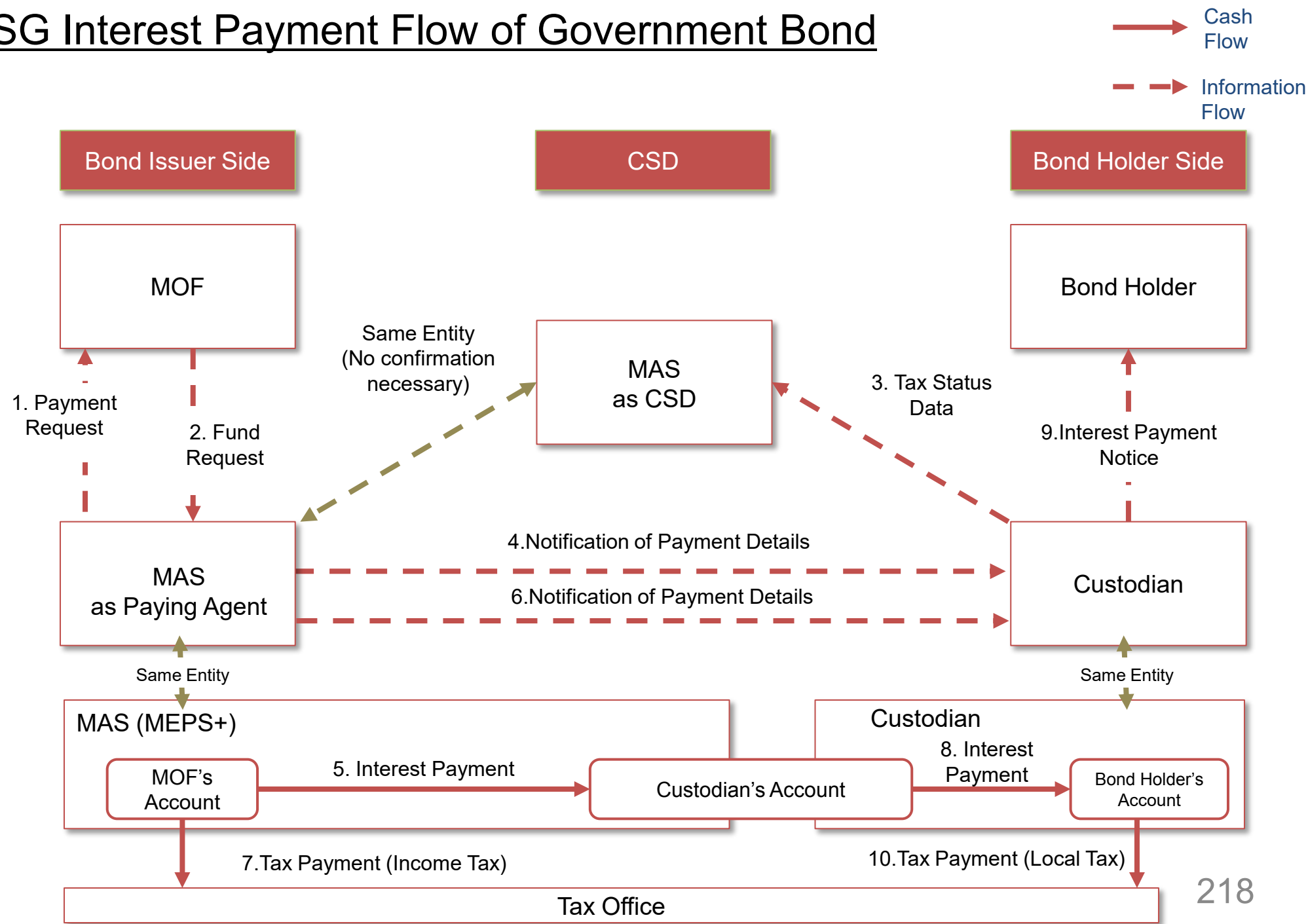
SG Interest Payment Flow of Government Bond

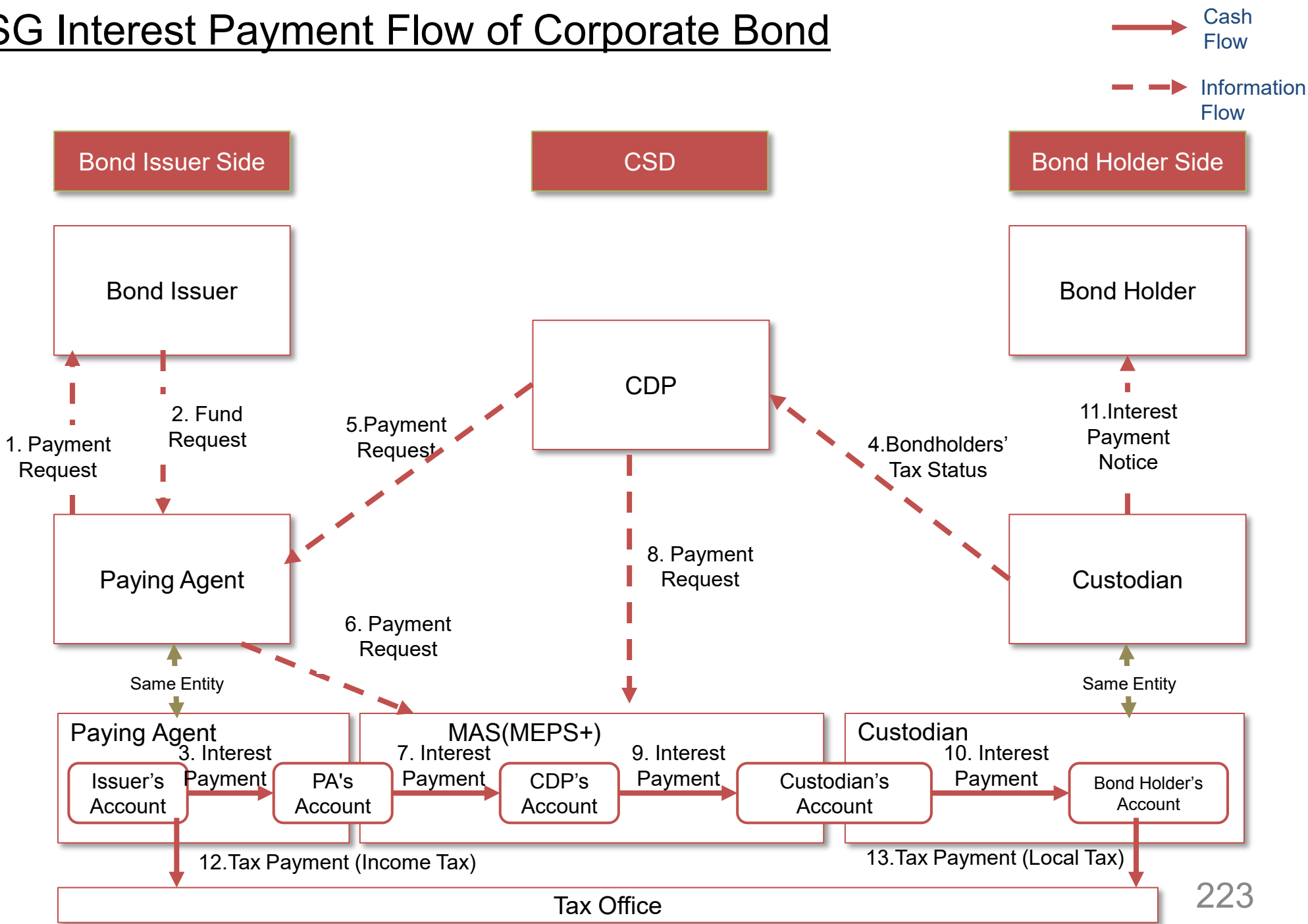## Process of Interest Payment

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 (ie 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

→ Cash Flow

⇢ Information Flow

Bond Issuer Side

CSD

Bond Holder Side

MOF

MAS as CSD

7.Redemption

Bond Holder

Same Entity (No confirmation necessary)

1. Payment Request

2. Fund Request

3. Tax Status Data

10.Redemption Payment Notice

MAS as Paying Agent

4.Notification of Payment Details

6.Notification of Payment Details

Custodian

Same Entity

Same Entity

MAS (MEPS+)

Custodian

MOF's Account

5. Redemption Payment

Custodian's Account

9.Redemption Payment

Bond Holder's Account

8.Tax Payment (Income Tax)

11.Tax Payment (Local Tax)

Tax Office

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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.

SG Interest Payment Flow of Corporate Bond

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

CDP

Bond Holder

1. Payment Request

2. Fund Request

5. Payment Request

4. Bondholders' Tax Status

11. Interest Payment Notice

Paying Agent

8. Payment Request

Custodian

6. Payment Request

Same Entity

Same Entity

Paying Agent
- Issuer's Account
- 3. Interest Payment
- PA's Account

MAS(MEPS+)
- 7. Interest Payment
- CDP's Account
- 9. Interest Payment
- Custodian's Account

Custodian
- 10. Interest Payment
- Bond Holder's Account

12. Tax Payment (Income Tax)

13. Tax Payment (Local Tax)

Tax Office

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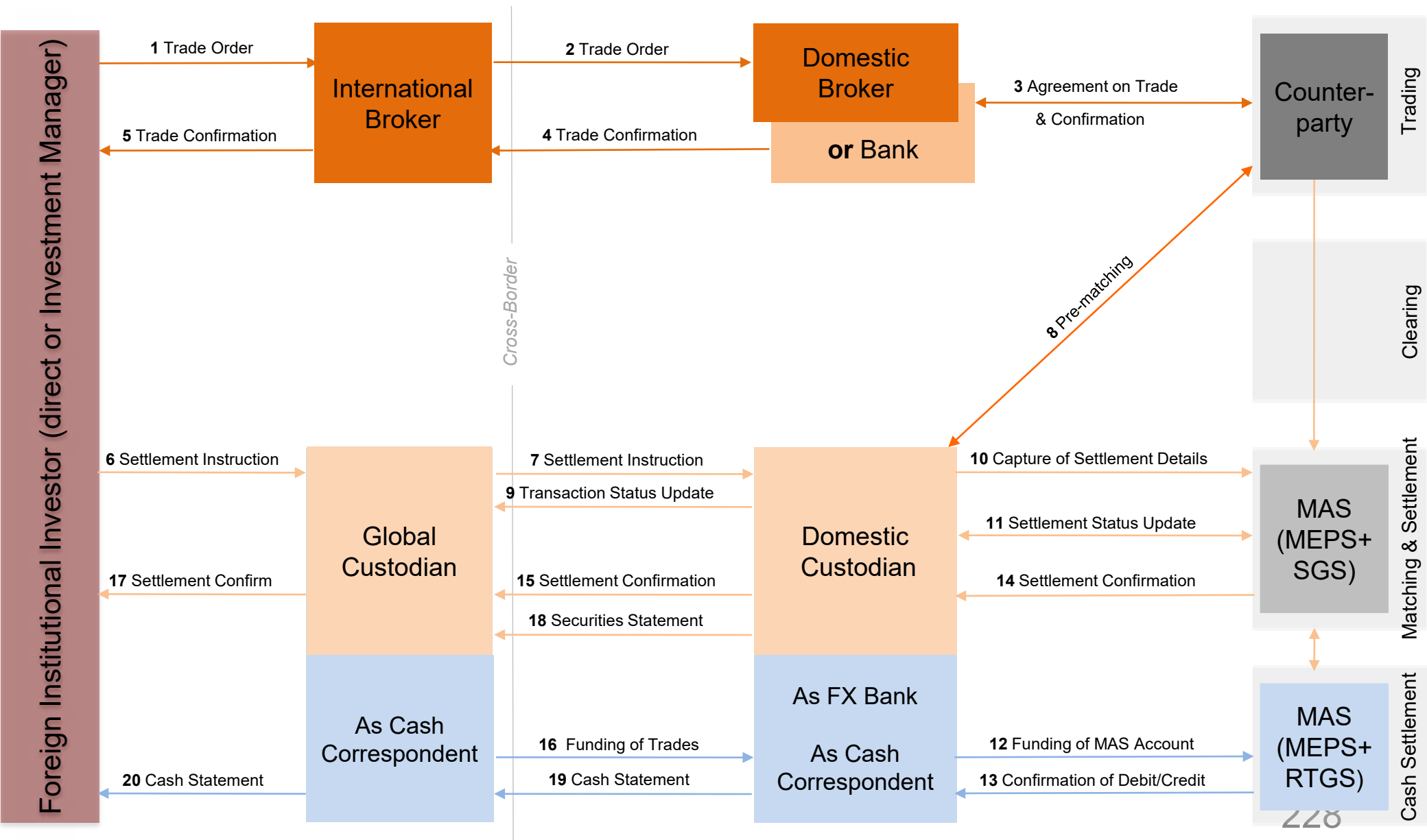# SG Interest Payment Flow of Corporate Bond

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.

SG Redemption Payment Flow of Corporate Bond

→ Cash Flow

⇢ Information Flow

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

Bond Holder

CDP

10.Redemption

1. Payment Request

2. Fund Request

5.Payment Request

4.Bondholders' Tax Status

14.Redemption Payment Notice

Paying Agent

11.Delete Bond Registration

8. Payment Request

12.Notice of Redemption

Custodian

Same Entity

6. Payment Request

Same Entity

Paying Agent

Issuer's Account

3. Redemption Payment

PA's Account

MAS(MEPS+)

7. Redemption Payment

CDP's Account

9. Redemption Payment

Custodian's Account

Custodian

13. Redemption Payment

Bond Holder's Account

15.Tax Payment (Income Tax)

16.Tax Payment (Local Tax)

Tax Office

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SG Redemption Payment Flow of Corporate Bond

Process of Redemption Payment

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.
12. Paying agent notifies custodians of redemption.
13. Custodians credit bond holders' accounts with last interest and principle, deducting local tax if applicable.
14. Custodians notify bond holders of redemption payment.
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.

Fig. SG03 OTC Bond Transaction Flow for Foreign Investors OTC Market / DVP

Foreign Institutional Investor (direct or Investment Manager)

Cross-Border

Trading

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

International Broker

Domestic Broker or Bank

Counter-party

Clearing

8 Pre-matching

Matching & Settlement

6 Settlement Instruction
7 Settlement Instruction
9 Transaction Status Update
10 Capture of Settlement Details
11 Settlement Status Update
17 Settlement Confirm
15 Settlement Confirmation
14 Settlement Confirmation
18 Securities Statement

Global Custodian

Domestic Custodian

MAS (MEPS+ SGS)

Cash Settlement

As Cash Correspondent

As FX Bank / As Cash Correspondent

MAS (MEPS+ RTGS)

16 Funding of Trades
12 Funding of MAS Account
20 Cash Statement
19 Cash Statement
13 Confirmation of Debit/Credit

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SG OTC 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+
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 Investor
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. <u>Bond Market Infrastructure Diagram</u>

TH Government Bond Market Infrastructure Diagram

Trading	OTC Market	SET (BEX)
Trade match.	TCH (PTI)	
CCP		TCH PTI (MNS)
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

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TH Corporate Bond Market Infrastructure Diagram

Trading	OTC Market	SET (BEX)
Trade match.	TCH (PTI)	
CCP		TCH PTI (MNS)
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

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TH Government Bond Transaction Flow for Domestic Trades

Sell Side

Buy Side

1. Trade

TCH

| 2.Trade Data | | 2.Trade Data |

(PTI)

3.Matching

| 4. Matching Results | | 4. Matching Results |

5. Holding Bonds

| 10. Settlement Report (Bond) | 9. Bonds Settlement | 10. Settlement Report (Bond) |

TSD

6. Settlement Details

8. Payment Response Message

Sell Side's Bank

Buy Side's Bank

BOT (BAHTNET)

7. Cash Settlement

| 8. Confirmation of Credit (Cash) | | 8. Confirmation of Debit (Cash) |

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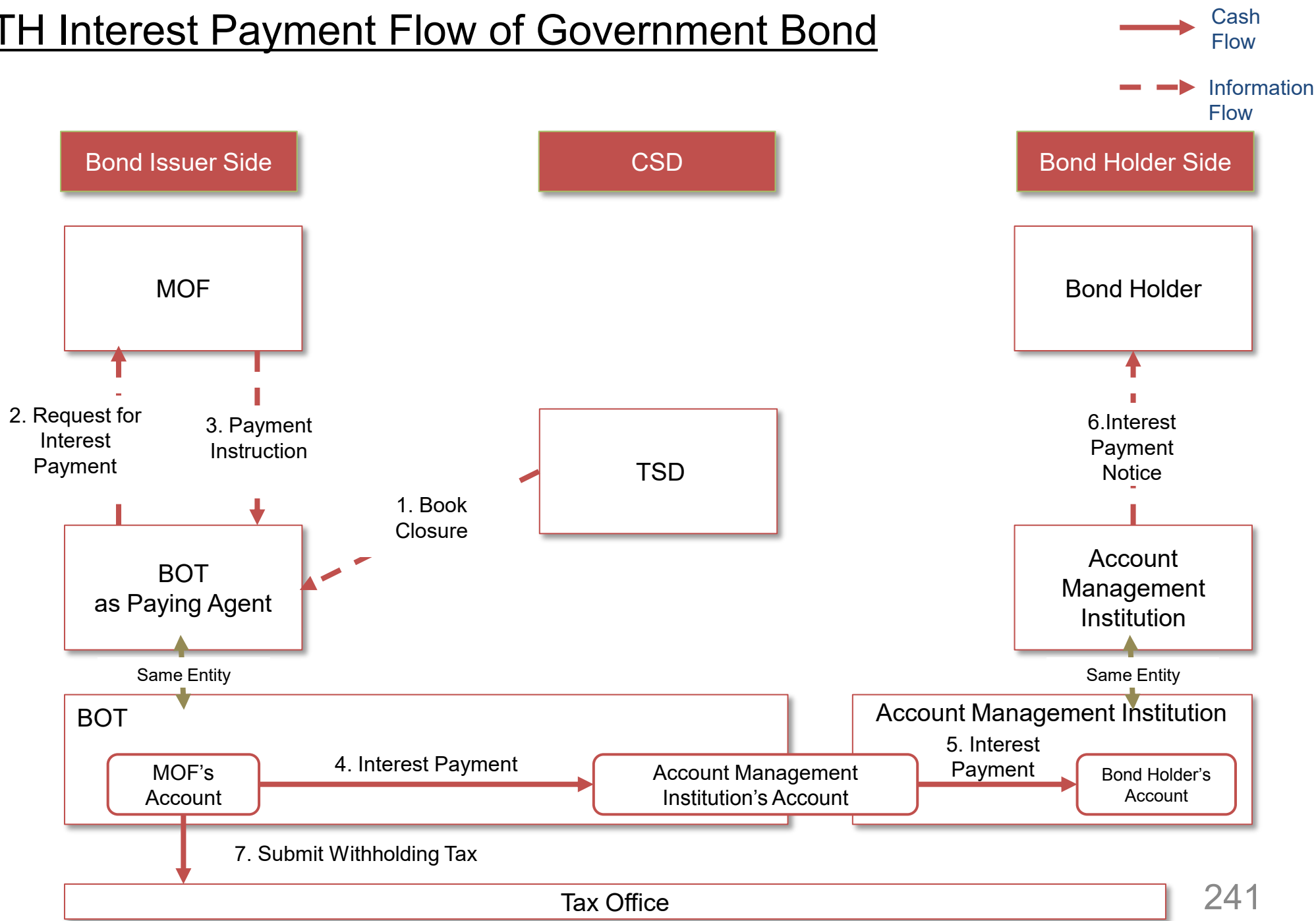# TH Government Bond Transaction Flow for Domestic Trades

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.

TH Corporate Bond Transaction Flow for Domestic Trades

Sell Side

Buy Side

1. Trade

TCH

(PTI)

2.Trade Data

2.Trade Data

3.Matching

4. Matching Results

4. Matching Results

5. Holding Bonds

9. Bonds Settlement

10. Settlement Report (Bond)

10. Settlement Report (Bond)

TSD

6. Settlement Details

8. Payment Response Message

Sell Side's Bank

Buy Side's Bank

BOT (BAHTNET)

7. Cash Settlement

8. Confirmation of Credit (Cash)

8. Confirmation of Debit (Cash)

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TH Corporate Bond Transaction Flow for Domestic Trades

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.

TH Interest Payment Flow of Government Bond

Legend:
→ Cash Flow
⇢ Information Flow

Bond Issuer Side | CSD | Bond Holder Side

MOF

2. Request for Interest Payment
3. Payment Instruction

TSD

1. Book Closure

BOT as Paying Agent

Bond Holder

6. Interest Payment Notice

Account Management Institution

Same Entity

BOT

MOF's Account

4. Interest Payment

Account Management Institution's Account

5. Interest Payment

Account Management Institution

Bond Holder's Account

Same Entity

7. Submit Withholding Tax

Tax Office

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TH Interest Payment Flow of Government Bond

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. 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.

TH Redemption Payment Flow of Government Bond

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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. 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).

TH Redemption Payment Flow of Government Bond
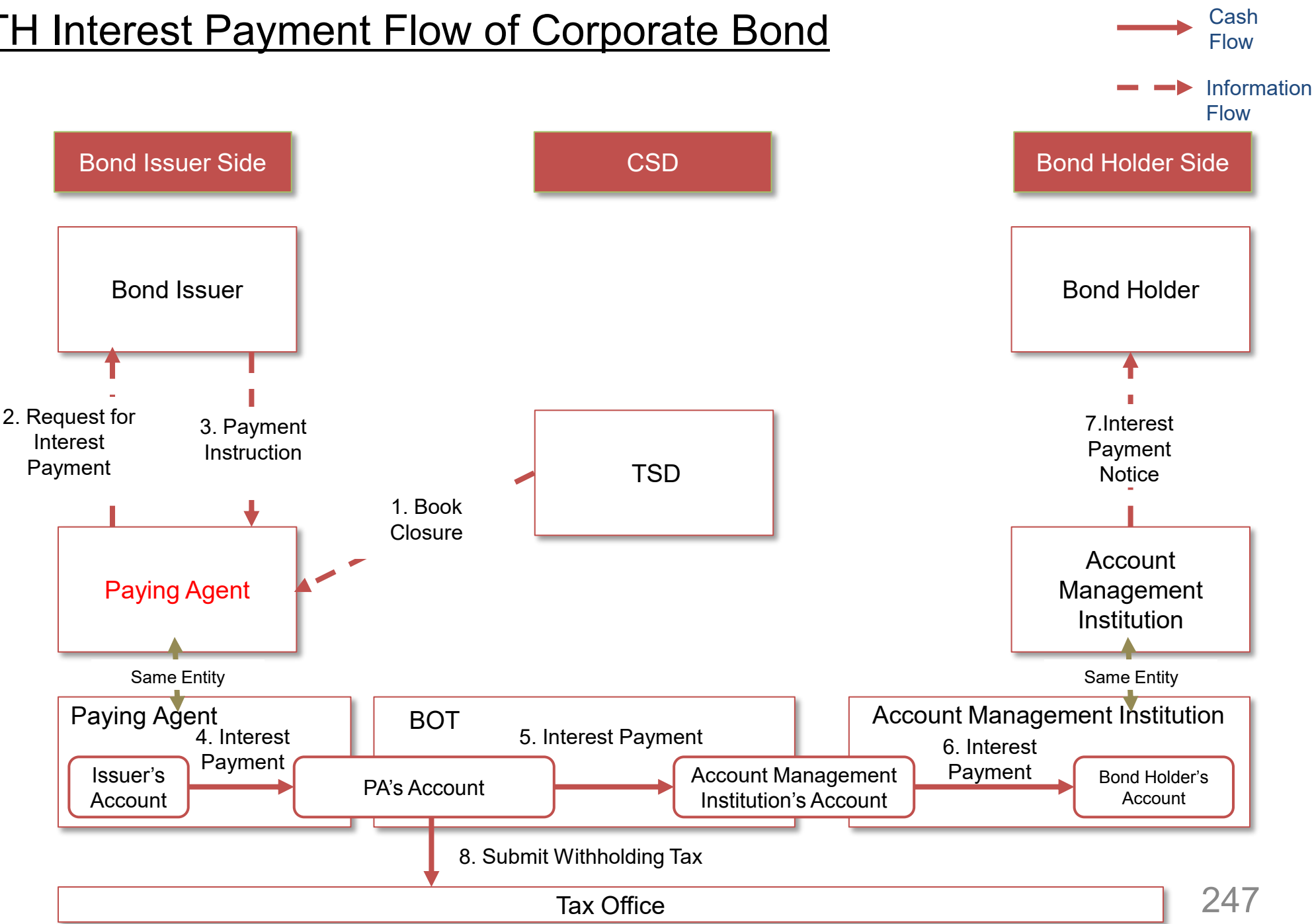
Process of Redemption Payment   2/2

<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.

TH Interest Payment Flow of Corporate Bond

Legend:
- → Cash Flow
- ⇢ Information Flow

Bond Issuer Side | **CSD** | **Bond Holder Side**

Bond Issuer

2. Request for Interest Payment

3. Payment Instruction

TSD

1. Book Closure

Paying Agent

Same Entity

Bond Holder

7. Interest Payment Notice

Account Management Institution

Same Entity

Paying Agent — Issuer's Account — 4. Interest Payment — PA's Account

BOT — 5. Interest Payment — Account Management Institution's Account

Account Management Institution — 6. Interest Payment — Bond Holder's Account

8. Submit Withholding Tax

Tax Office

TH Interest Payment Flow of Corporate Bond

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

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

TSD

8.Redemption

Bond Holder

4. Request for Principal Paymen

5. Payment Instruction

1. Book Closure

2. Information about Redemption

3. Return Bond Certificate

11.Interest Payment Notice

Paying Agent

9.Delete registration

Account Management Institution

Same Entity

Same Entity

Paying Agent

Issuer's Account

6. Interest Payment

PA's Account

BOT

7. Interest Payment

Account Management Institution's Account

Account Management Institution

10. Interest Payment

Bond Holder's Account

12. Submit Withholding Tax

Tax Office

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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)

TH Redemption Payment Flow of Government Bond

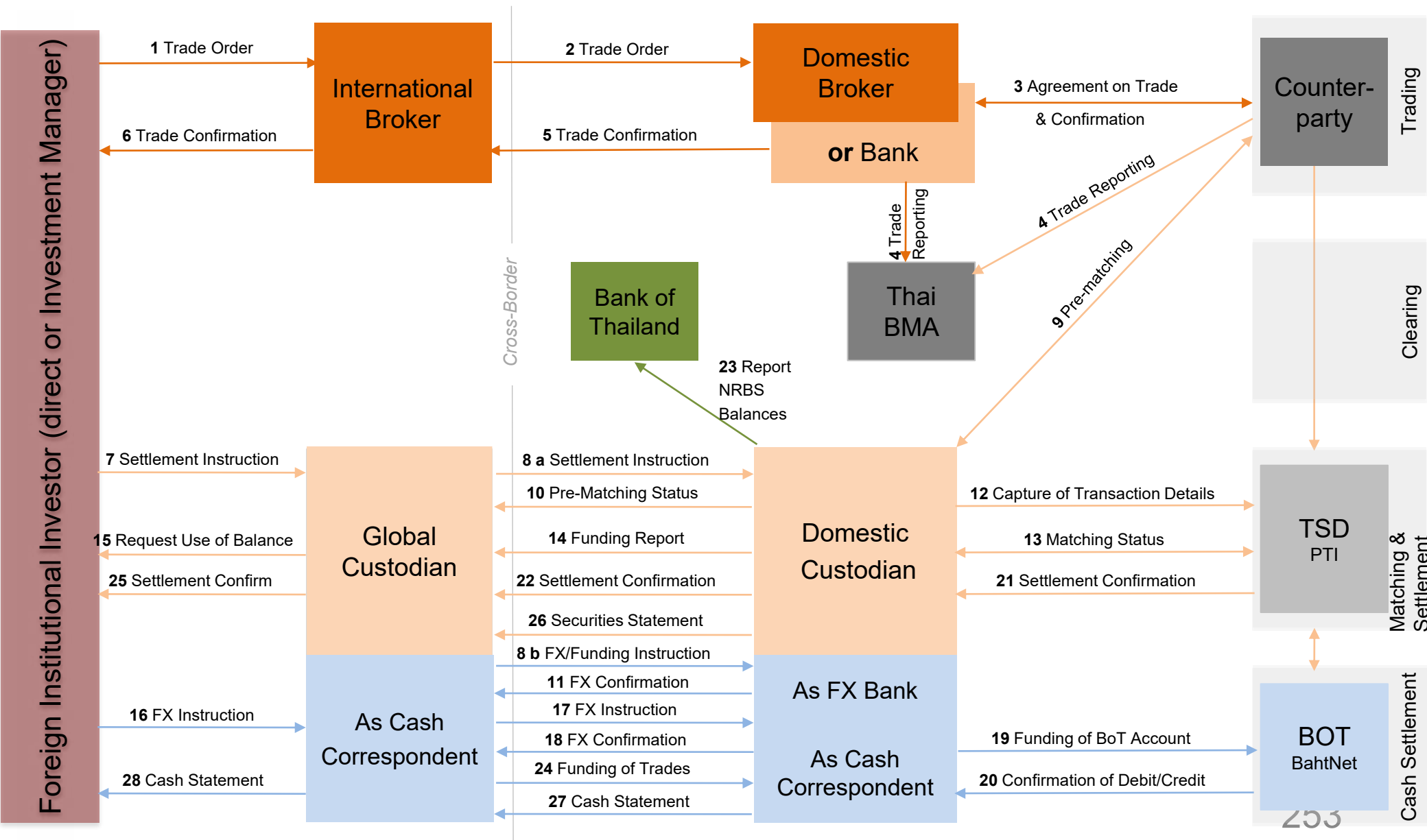## Process of Redemption Payment   2/2

<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.

TH OTC Bond Transaction Flow for Foreign Investors OTC Market / DVP

TH OTC 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 send 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 (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

Settlement Date

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)
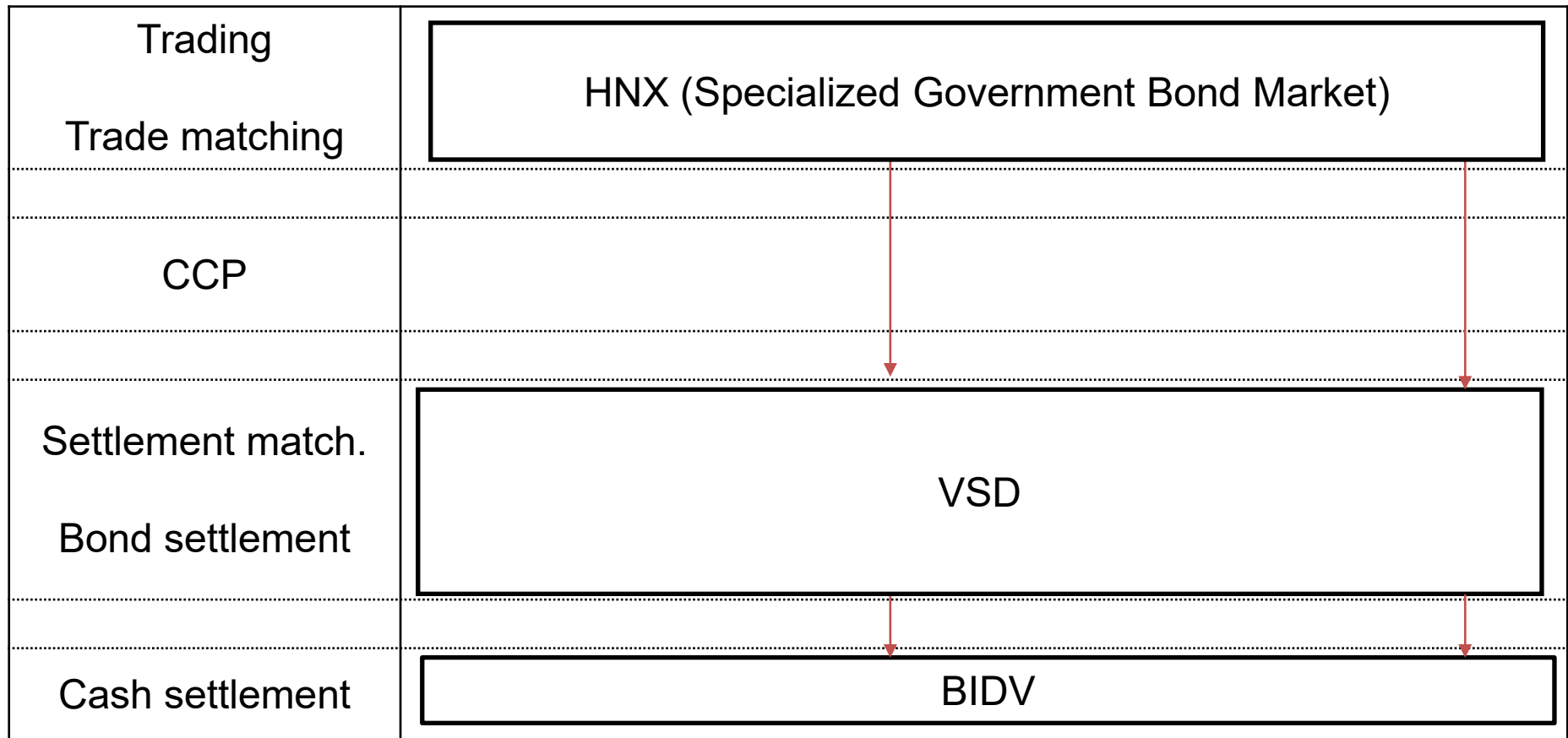28. Global Custodian sends cash credit/debit information to FII in cash statement (end of day)

Viet Nam (VN)

VN Government Bond Market Infrastructure Diagram

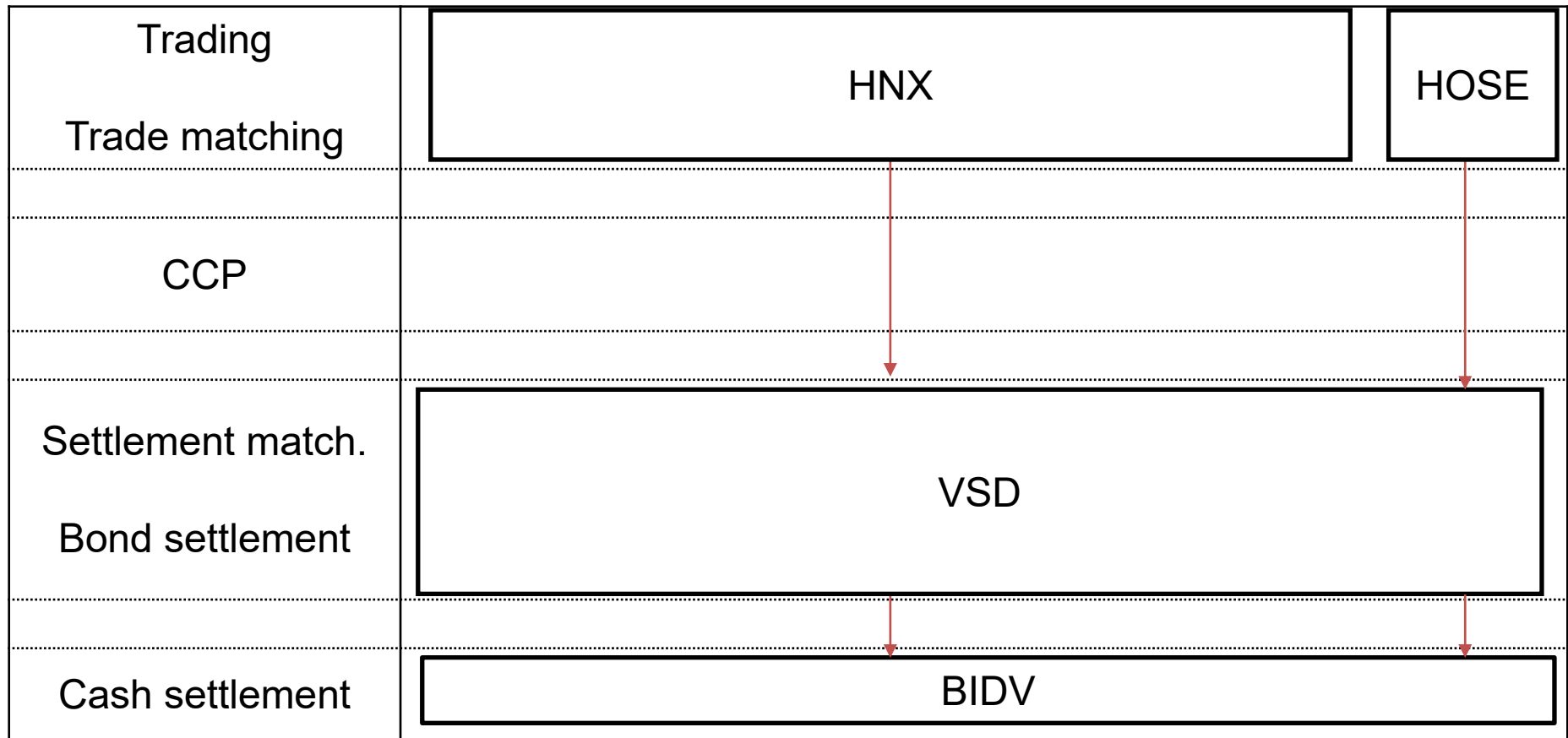|	
Trading **Trade matching**	HNX (Specialized Government Bond Market)
CCP	
Settlement match. **Bond settlement**	VSD
Cash settlement	BIDV

HNX – The Hanoi Stock Exchange
VSD – Vietnam Securities Depository
BIDV – Bank for Investment and Development of Vietnam

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VN Corporate Bond Market Infrastructure Diagram
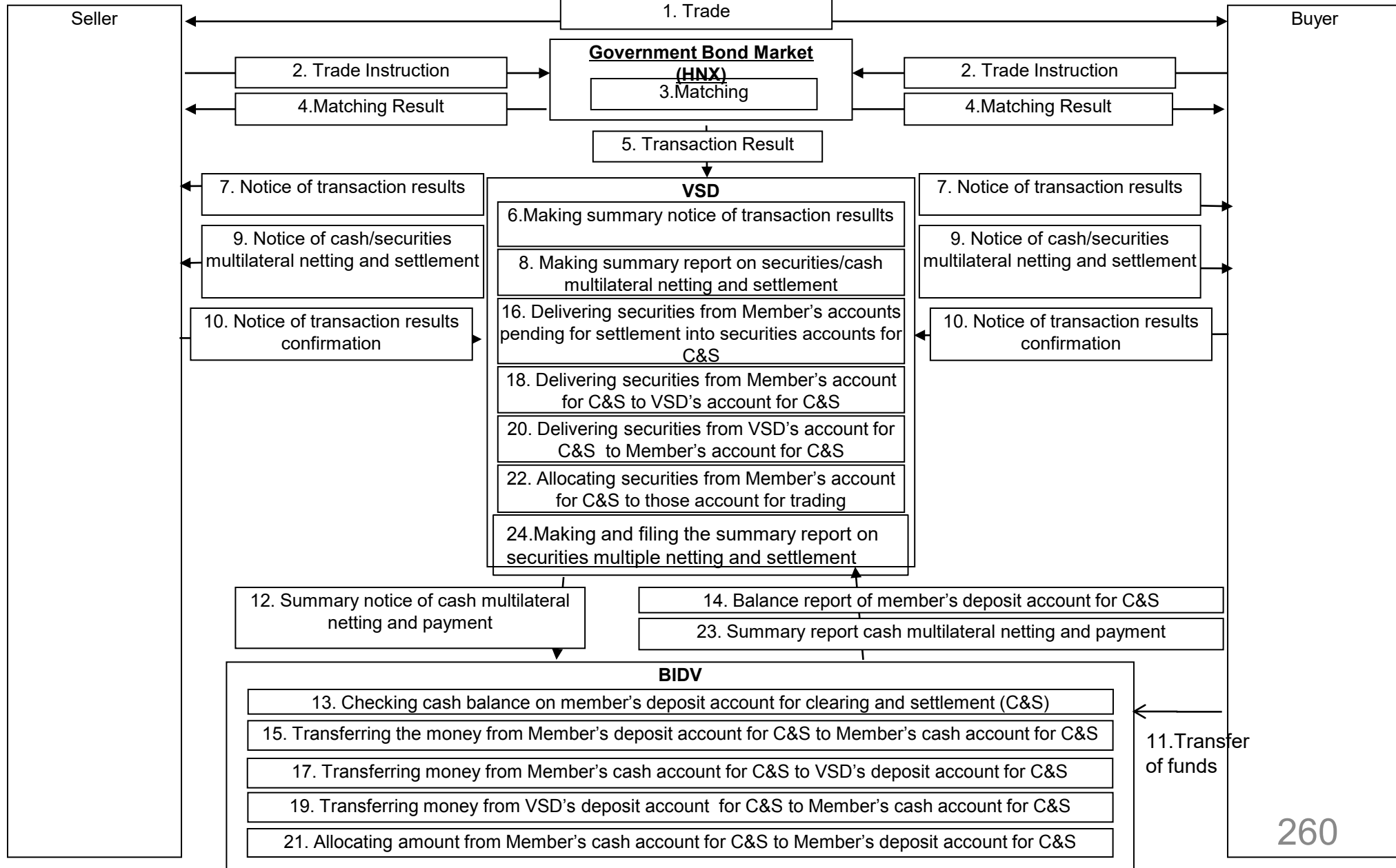

HNX – The Hanoi Stock Exchange
HOSE – Ho Chi Minh Stock Exchange
VSD – Vietnam Securities Depository
BIDV – Bank for Investment and Development of Vietnam

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VN Business Process Flow Government Bond Market

Seller				Buyer

1. Trade

Government Bond Market (HNX)

3.Matching

2. Trade Instruction

4.Matching Result

2. Trade Instruction

4.Matching Result

5. Transaction Result

VSD

7. Notice of transaction results

6.Making summary notice of transaction resullts

7. Notice of transaction results

9. Notice of cash/securities multilateral netting and settlement

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

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

10. Notice of transaction results confirmation

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

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

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

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

12. Summary notice of cash multilateral netting and payment

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

23. Summary report cash multilateral netting and payment

BIDV

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

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

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

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

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

11.Transfer of funds

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VN Business Process Flow Government Bond Market

OTC Market 1/3

1. Sell side and buy side execute bond trades via electronic negotiation and conventional negotiation.
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).
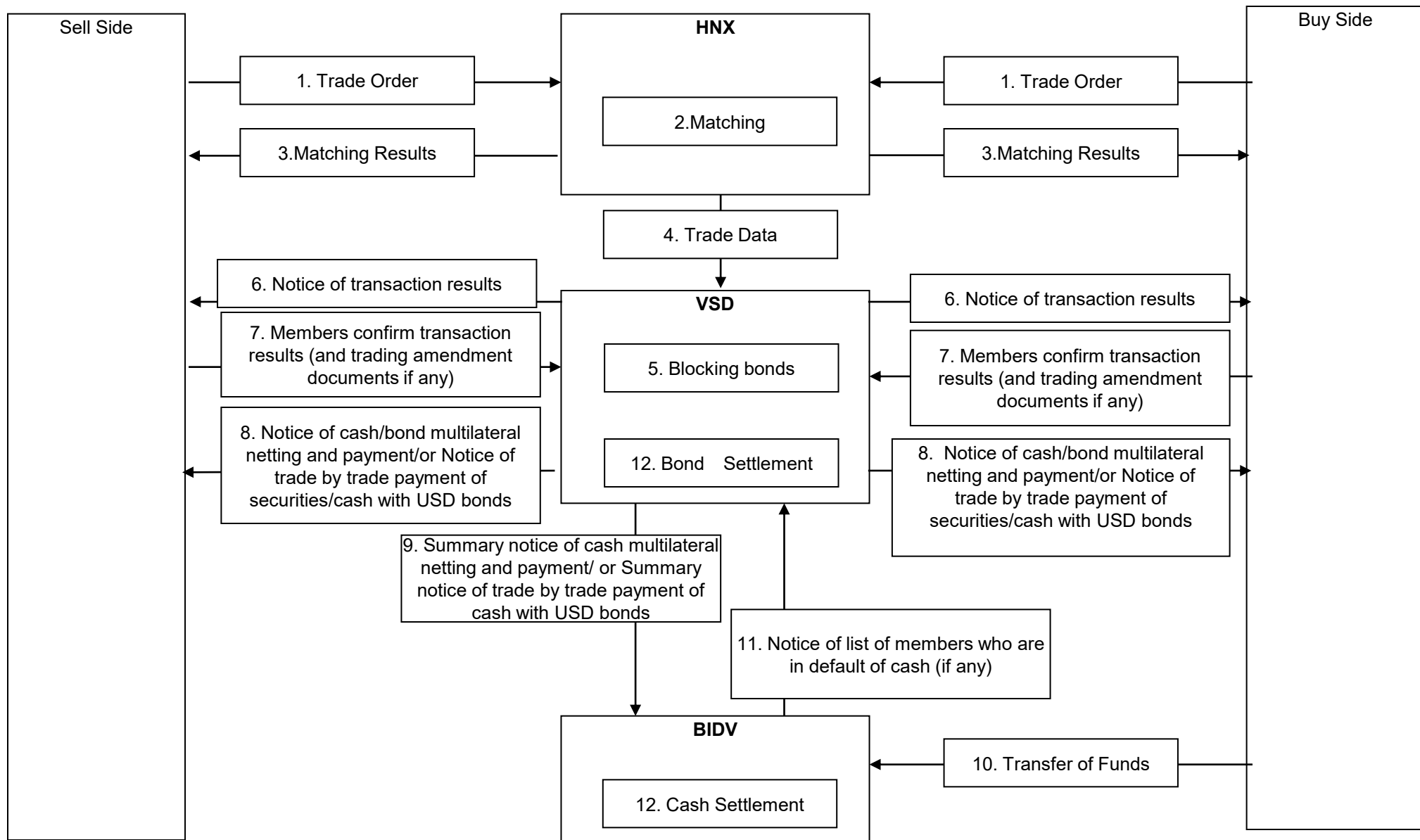
OTC Market 2/3

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.

OTC Market 3/3

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.

VN Business Process Flow: revised Bond Market / DVP

Sell Side

Buy Side

HNX

1. Trade Order

1. Trade Order

2. Matching

3. Matching Results

3. Matching Results

4. Trade Data

6. Notice of transaction results

6. Notice of transaction results

VSD

7. Members confirm transaction results (and trading amendment documents if any)

7. Members confirm transaction results (and trading amendment documents if any)

5. Blocking bonds

8. Notice of cash/bond multilateral netting and payment/or Notice of trade by trade payment of securities/cash with USD bonds

12. Bond   Settlement

8. Notice of cash/bond multilateral netting and payment/or Notice of trade by trade payment of securities/cash with USD bonds

9. Summary notice of cash multilateral netting and payment/ or Summary notice of trade by trade payment of cash with USD bonds

11. Notice of list of members who are in default of cash (if any)

BIDV

10. Transfer of Funds

12. Cash Settlement

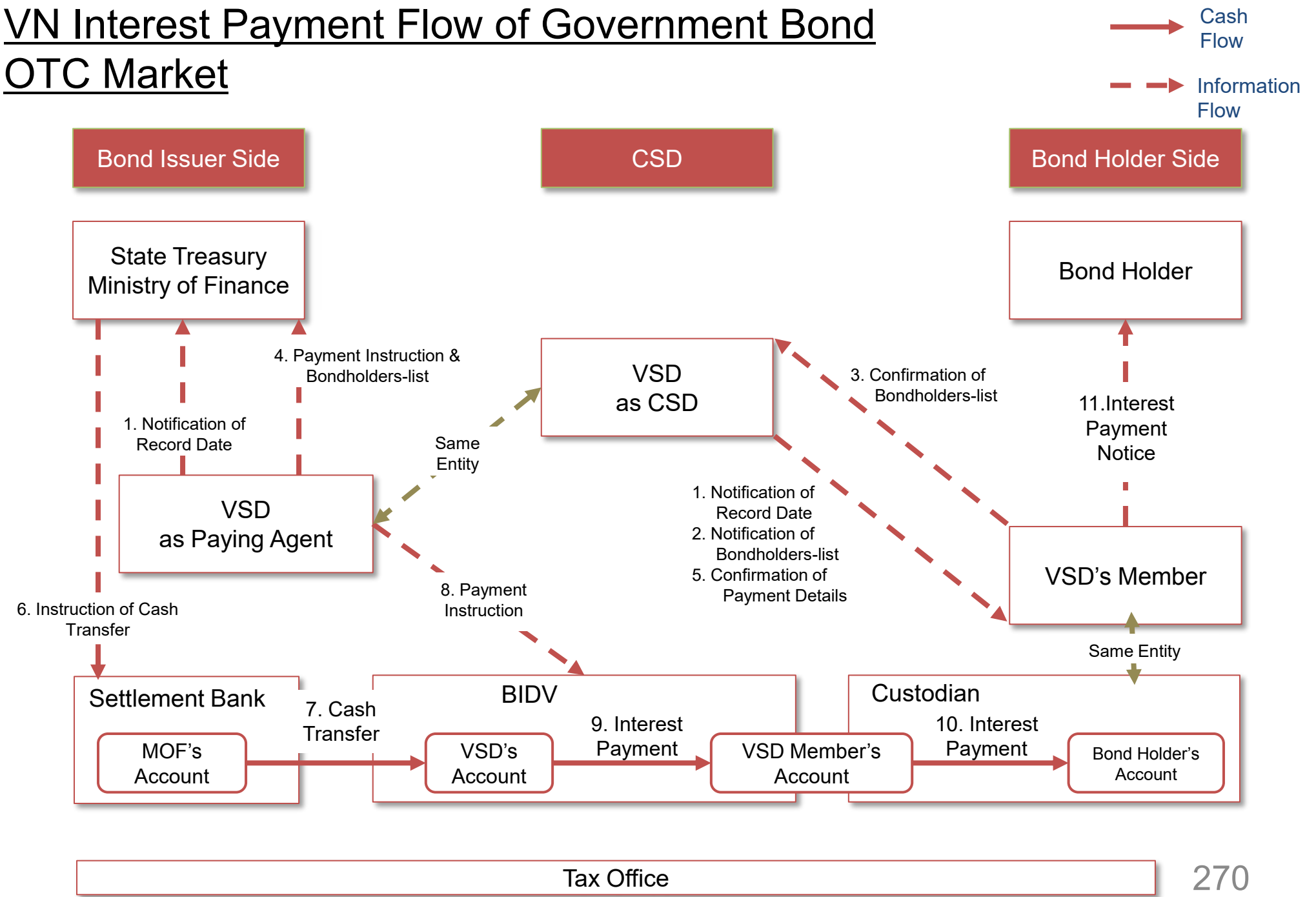Note: This Business Process Flow simplifies the flowchart of the previous page.

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.

VN Corporate Bond Transaction Flow for Domestic Trades

Sell Side

Buy Side

HNX and HOSE

1. Trade Order

1. Trade Order

2.Matching

3.Matching Results

3.Matching Results

4. Trade Data

6. Notice of transaction results

6. Notice of transaction results

VSD

7. Members confirm transaction results (and trading amendment documents if any)

7. Members confirm transaction results (and trading amendment documents if any)

5. Blocking bonds

8. Notice of cash/bond multilateral netting and payment/or Notice of trade by trade payment of securities/cash with USD bonds

13. Bond   Settlement

8. Notice of cash/bond multilateral netting and payment/or Notice of trade by trade payment of securities/cash with USD bonds

9. Summary notice of cash multilateral netting and payment/ or Summary notice of trade by trade payment of cash with USD bonds

12. Notice of list of members who are in default of cash (if any)

BIDV

10. Transfer of Funds

11. Cash Settlement

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.

VN Interest Payment Flow of Government Bond OTC Market

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

State Treasury Ministry of Finance

Bond Holder

VSD as CSD

4. Payment Instruction & Bondholders-list

1. Notification of Record Date

3. Confirmation of Bondholders-list

11. Interest Payment Notice

VSD as Paying Agent

Same Entity

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

6. Instruction of Cash Transfer

8. Payment Instruction

VSD's Member

Same Entity

Settlement Bank

MOF's Account

7. Cash Transfer

BIDV

VSD's Account

9. Interest Payment

VSD Member's Account

Custodian

10. Interest Payment

Bond Holder's Account

Tax Office

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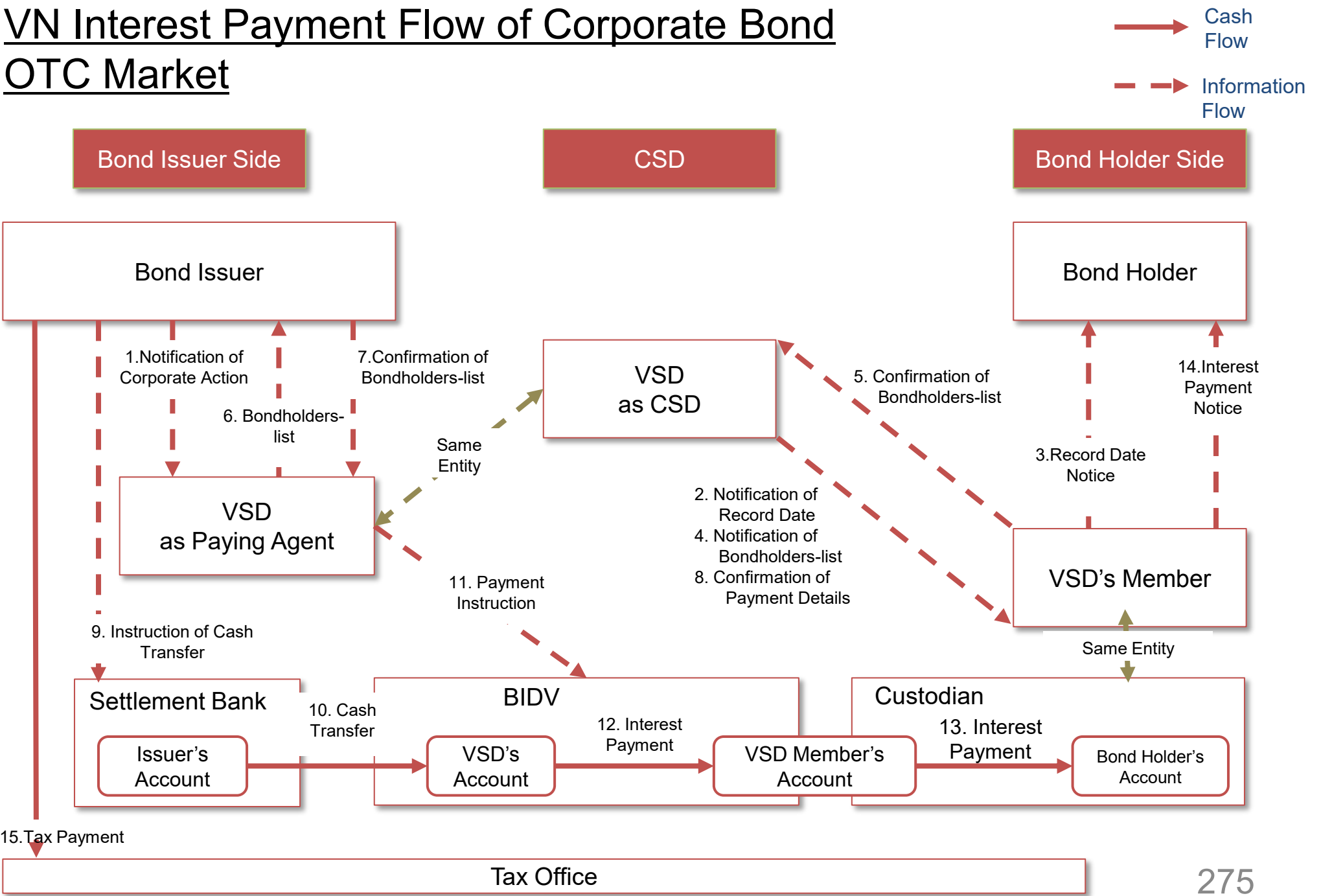# VN Interest Payment Flow of Government Bond
OTC Market

Process of Interest 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 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

Legend:
- → Cash Flow
- --→ Information Flow

Bond Issuer Side

State Treasury Ministry of Finance

1. Notification of Record Date

4. Payment Instruction & Bondholders-list

VSD as Paying Agent

6. Instruction of Cash Transfer

Settlement Bank
- MOF's Account

7. Cash Transfer

CSD

VSD as CSD
- 10. Redemption

Same Entity

8. Payment Instruction

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

3. Confirmation of Bondholders-list

BIDV
- VSD's Account

9. Interest Payment

Bond Holder Side

Bond Holder

12. Interest Payment Notice

VSD's Member

Same Entity

Custodian
- VSD Member's Account

11. Interest Payment

Bond Holder's Account

Tax Office

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VN Redemption Payment Flow of Government Bond OTC Market

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 it's 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 it's 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.

VN Interest Payment Flow of Corporate Bond OTC Market

Cash Flow

Information Flow

Bond Issuer Side

CSD

Bond Holder Side

Bond Issuer

VSD as CSD

Bond Holder

1.Notification of Corporate Action

7.Confirmation of Bondholders-list

6. Bondholders-list

5. Confirmation of Bondholders-list

14.Interest Payment Notice

Same Entity

VSD as Paying Agent

2. Notification of Record Date
4. Notification of Bondholders-list
8. Confirmation of Payment Details

3.Record Date Notice

VSD's Member

11. Payment Instruction

9. Instruction of Cash Transfer

Same Entity

Settlement Bank

BIDV

Custodian

Issuer's Account

10. Cash Transfer

VSD's Account

12. Interest Payment

VSD Member's Account

13. Interest Payment

Bond Holder's Account

15.Tax Payment

Tax Office

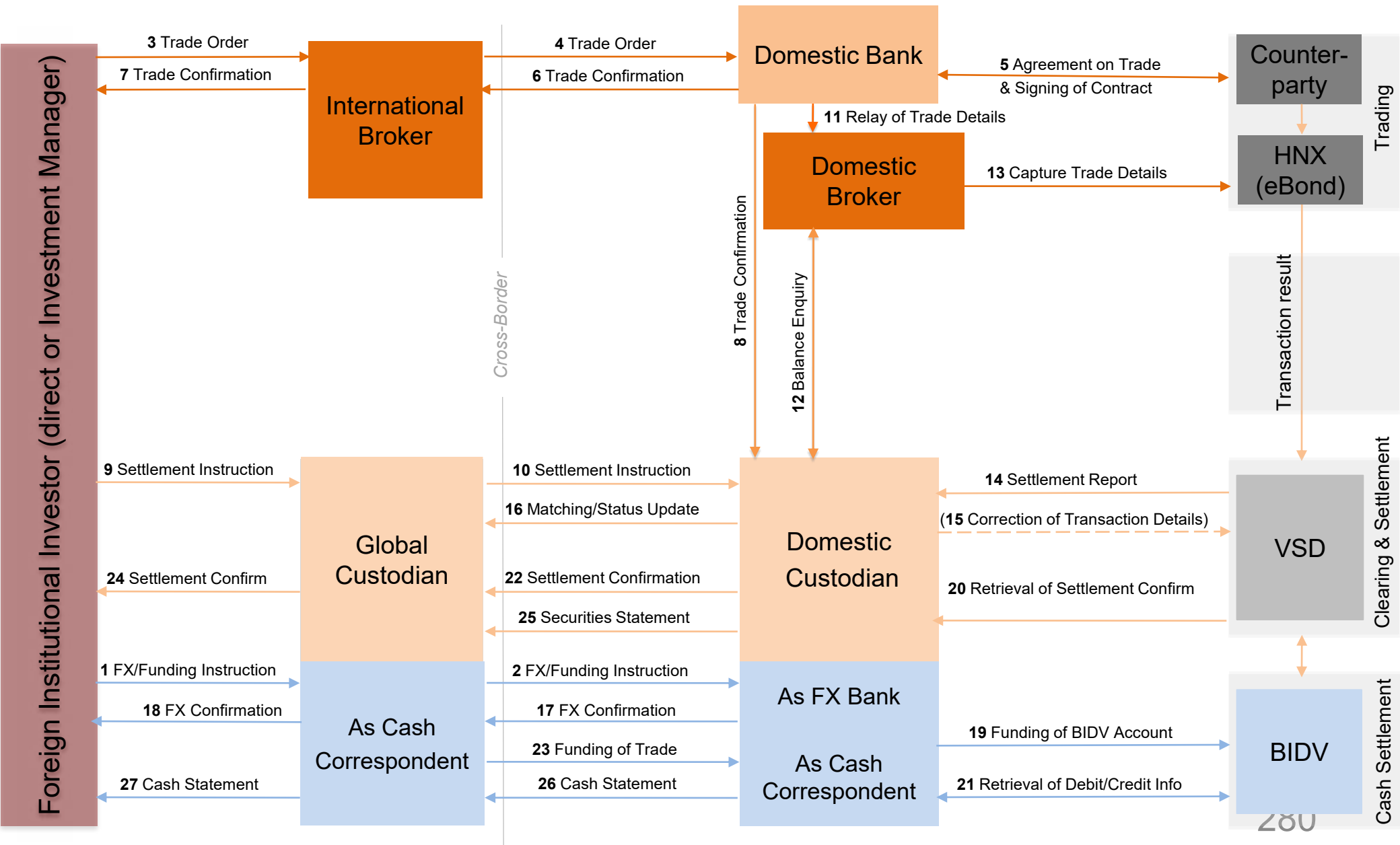275

VN Interest Payment Flow of Corporate Bond OTC Market

Process of Interest 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

Legend:
- → Cash Flow
- ⇢ Information Flow

Bond Issuer Side
- Bond Issuer
- VSD as Paying Agent
- Settlement Bank — Issuer's Account

CSD
- VSD as CSD — 13. Redemption

Bond Holder Side
- Bond Holder
- VSD's Member
- Custodian — Bond Holder's Account

- BIDV — VSD's Account
- VSD Member's Account

- Tax Office

Flows:
- 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
- 14. Interest Payment
- 15. Interest Payment Notice
- 16. Tax Payment
- Same Entity

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VN Redemption Payment Flow of Corporate Bond OTC Market

Process of Redemption 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 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.

VN OTC Bond Transaction Flow for Foreign Investors

Foreign Institutional Investor (direct or Investment Manager)

International Broker
- 3 Trade Order
- 7 Trade Confirmation

Domestic Bank
- 4 Trade Order
- 6 Trade Confirmation
- 5 Agreement on Trade & Signing of Contract
- 11 Relay of Trade Details

Counter-party

HNX (eBond)
- 13 Capture Trade Details

Domestic Broker
- 8 Trade Confirmation
- 12 Balance Enquiry

Trading

Cross-Border

Transaction result

Global Custodian
- 9 Settlement Instruction
- 24 Settlement Confirm

Domestic Custodian
- 10 Settlement Instruction
- 16 Matching/Status Update
- 22 Settlement Confirmation
- 25 Securities Statement
- 14 Settlement Report
- (15 Correction of Transaction Details)
- 20 Retrieval of Settlement Confirm

VSD

Clearing & Settlement

As Cash Correspondent
- 1 FX/Funding Instruction
- 18 FX Confirmation
- 27 Cash Statement

As FX Bank
As Cash Correspondent
- 2 FX/Funding Instruction
- 17 FX Confirmation
- 23 Funding of Trade
- 26 Cash Statement

BIDV
- 19 Funding of BIDV Account
- 21 Retrieval of Debit/Credit Info

Cash Settlement

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VN 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
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

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)

Settle 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

ISO 20022 adoption

ABMF 12th meeting status

ISO 20022: Connecting the dots

ISO 20022
When ?

ISO 20022
Who ?

ISO 20022
How ?
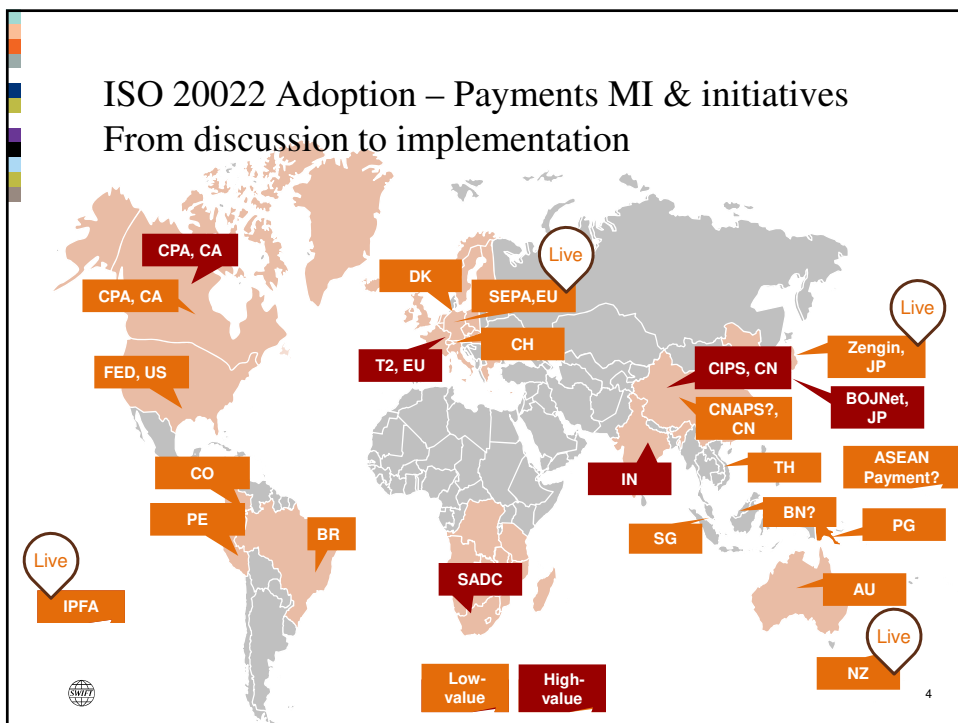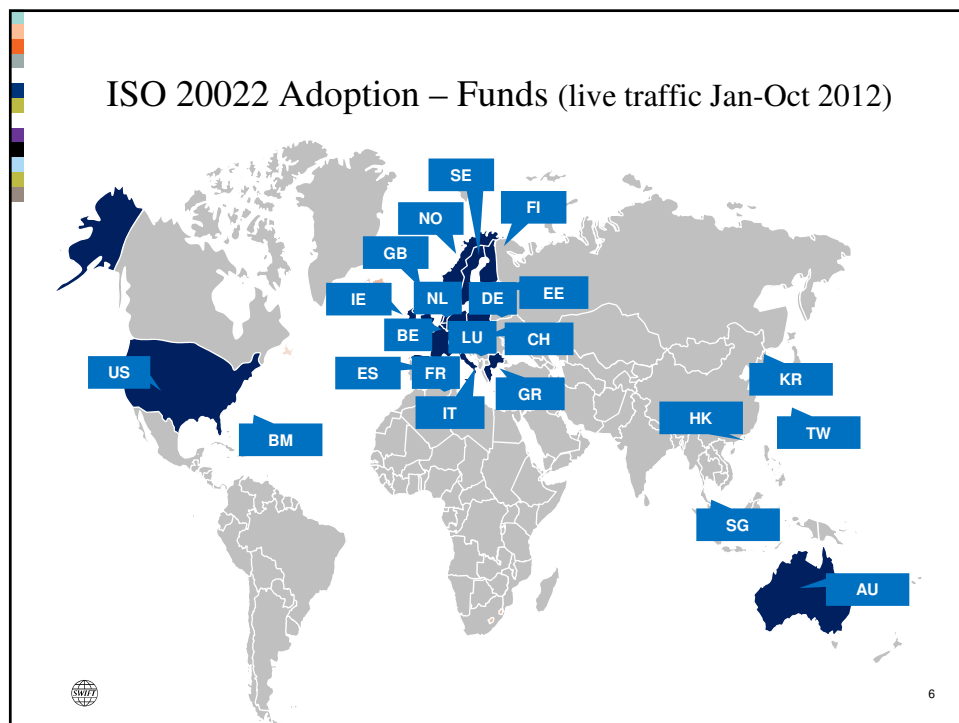
ISO 20022
Why ?

ISO 20022: Where is it used?
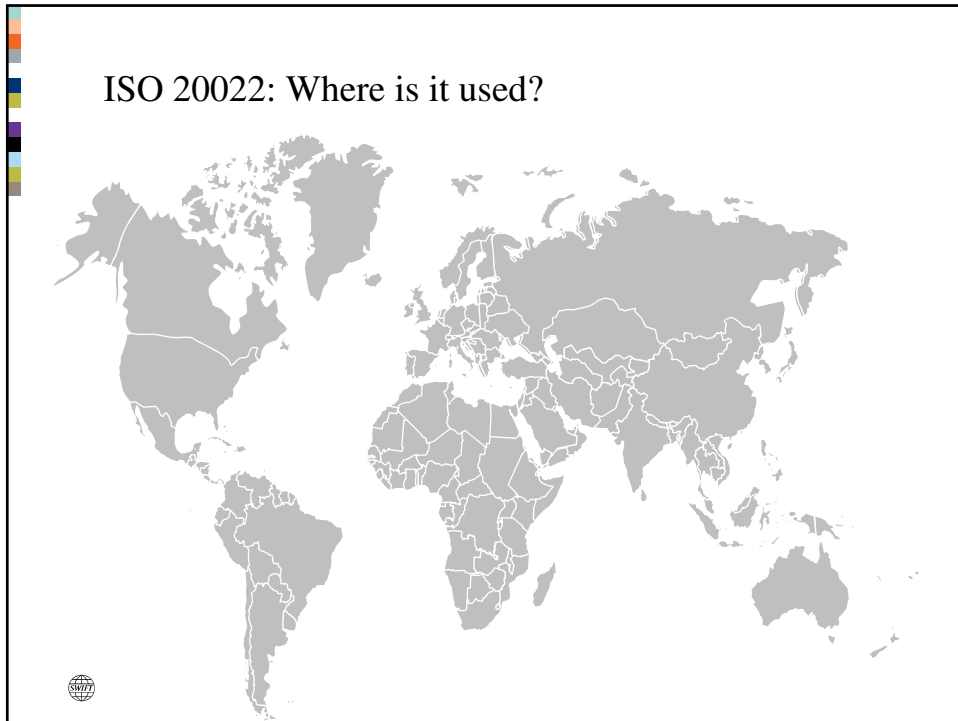
ISO 20022 Adoption – Payments MI & initiatives
From discussion to implementation

CPA, CA

CPA, CA

FED, US

DK

SEPA,EU

CH

T2, EU

Live

Live

Zengin, JP

CIPS, CN

CNAPS?, CN

BOJNet, JP

CO

PE

BR

IN

SG

TH

ASEAN Payment?

BN?

PG

AU

SADC

Live

IPFA

Live

NZ

Low-value

High-value

4

ISO 20022 Adoption – Securities MI & Treasury MI – From discussion to implementation

ISO 20022 Adoption – Funds (live traffic Jan-Oct 2012)

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'

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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

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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 inter-operability

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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

ISO 20022   Older protocols
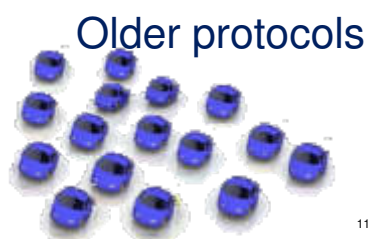
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How to adopt ISO 20022
Managing diverging local implementations

A risk that can be mitigated by a coordinated
approach:
- Collaboration and best practice sharing in working
  groups (eg 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
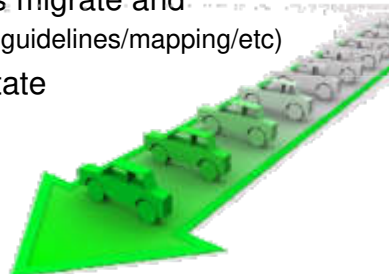
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Standards Capacity Building in ASEAN

- 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

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Questions?

- www.iso20022.org
- www.swift.com/mystandards

- @standardsforum
- #ISO20022

- ISO20022 – A Financial Messaging Standard

- alexandre.kech@swift.com
- mireia.guisado-parra@swift.com

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○ 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

2

ADB

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)

3

ADB

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

4

Knowledge support for BCLMV

❑ Phase 2 support for Cambodia – program

    29 May : (Morning)

           (Afternoon)   — ABMF market visits

    30 May : (Morning)

           (Afternoon)   Bond transaction flows

    31 May : (Morning)   Auction system

           (Afternoon)   Inter-bank money market

  * Welcome participation of ABMF members

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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)

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Work Plan after Jakarta Meeting   ADB

❑   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

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Work Plan after Jakarta Meeting   ADB

❑   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

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