ADB

ASIAN BOND MARKETS INITIATIVE

ASEAN+3 Bond Market Forum (ABMF)

20th ASEAN+3 Bond Market Forum (ABMF)

Sands Expo and Convention Centre
Marina Bay Sands, Singapore
Sibos: 12-15 October
ABMF meeting: 15-16 October 2015

TIME	PROGRAM	
Programs recommended for the members to participate		
12 October (Monday)		
09:00-09:45	*How does ISO 20022 enable innovation in Asia Pacific?*	*Standards Forum*
09:00-09:45	*Global trends in regulated securities markets: how to return to a path of growth?*	*Securities*
13:00-13:45	*The top five benefits of ISO 20022: a 360 degree view*	*Standards Forum*
14:00-15:15	*Opening Plenary*	*SIBOS*
15:30-16:15	*Introduction to SWIFT's ISO 20022 harmonization framework*	*Standards Forum*
15:30-17:00	*A future for CSDs?*	*MI Forum*
13 October (Tuesday)		
09:00--9:45	*Planning your ISO 20022 implementation: Myths, best practice and advice*	*Standards Forum*
10:15-11:15	*Standardising the standard: the need for global ISO 20022 market practice*	*Standards Forum*
10:15-11:15	*Securities market infrastructure innovation: the next frontier*	*Securities, Market Infrastructure*
13:00-13:45	*Market infrastructures update: ISO 20022 plans and visions*	*Standards Forum*
14:00-14:45	*MyStandards: a platform for ISO 20022 harmonization*	*Standards Forum*
14:00-15:00	*Breaking the silos: Building a global assets inventory to optimize collateral management*	*Securities, Standards Forum*
14:30-15:00	*Cross-Border Stock Market Links in Asia: What Makes*	*SWIFT*

TIME	PROGRAM	
	One a Success?	*Institute*
15:30-16:30	*Driving the industry towards a truly global ISO 20022 standard*	*MI Forum, SF*
16:45-18:00	*ISO 20022 Harmonization ceremony, followed by Harmony Drink*	*Standards Forum*
14 October (Wednesday)		
09:00-09:45	*Securities transparency: is this the next frontier?*	*Compliance Forum, Securities*
14:00-15:15	*Asset Servicing: Issuer to Investor automation*	*Securities Workshop*
15:30-16:30	*The changing landscape of Singapore's securities market*	*Community*
ABMF Official meeting		
15 October (Thursday) *SIBOS registration required*		
9:00-10-00	*Opening ASEAN day*	*ASEAN*
10:15-11:15	*ASEAN Leaders in Conversation*	*ASEAN*
11:30-12:30	*RMB: The real game changer*	*ASEAN*
12:45-13:45	*How ASEAN+3 connects Bond markets towards more integrated markets* - *Presentation by Satoru Yamadera, ADB* - *Panel discussion* *Panelists from ABMF members (tbc)* - *Q&A*	*Community*
14:00-15:30	*Securities Workshop* *Regional Market Infrastructure Linkages – the way forward* *In the past decade, we have witnessed a steady formation of linkages of market infrastructures in the region, albeit multi-laterally or bilaterally. Asian examples such as the ASEAN Trading Link, the Shanghai-Hong Kong Stock Connect, Taiwan-Singapore Link and the CSIF Regional Settlement Infrastructure, have been both the subject of anticipation and scrutiny by regional participants.* *We will address the efforts to facilitate cross border trading and attract foreign fund flows.*	*ASEAN*

TIME	PROGRAM	
16:00-17:30	*Closing Plenary*	*SIBOS*
16 October (Friday) *Venue: Level 4, Melati Room (4002-4004 and 4102-4104)*		
08:15-08:45	*Registration*	
ABMF informal sessions (CSIF members are invited to join)		
08:45 – 09:00	**Welcome Address** *by Mr. Alain Raes, Chief Executive Asia Pacific & EMEA, SWIFT*	
Sub-Forum 1		
09:00 – 09:05	**Opening Remarks** *by Mr. Koji Ito, SF1 Chair*	
09:05 – 10:00	**Session 1: Reporting on ASEAN+3 Multi-currency Bond Issuance Framework, New Working Groups, and Bond Market Guide** *by Mr. Satoru (Tomo) Yamadera, ADB Secretariat*	
Sub-Forum 2		
10:00 – 10:05	**Opening Remarks** *by Mr. Jong Hyung Lee , SF2 Chair*	
10:05-11:15	**Session 2: Implementation of ISO 20022** **Lessons to be learnt from the other region** *By Mr. Marc Byle, ECB* *Mr. Mehdi Manaa, ECB* *Mr. Philippe Leblanc, BdF* *Federal Reserve Bank (tbc)*	
11:15-11:30	**Coffee break**	
11:30- 12:00	**Updating Implementation of ISO 20022 in ASEAN+3** *By Dr. Taiji Inui, ADB Consultant* - Discussion with colleagues from other regions	
12:00 – 13:00	**Session 3: Extensive application of standards** *By Ms. Karla McKenna, TC68 Chair,* *Mr. Gerard Hartsink, The Chair of Global LEI Foundation*	
13:00-13:10	Wrap up *by Mr. Satoru Yamadera, ADB secretariat*	
13:10 – 14:00	Lunch Level 4, Orchid Ballroom (4202-4203 and 4302-4303)	

sibos

SINGAPORE
12 - 15 October 2015

ADB – How ASEAN+3 can connets bonds markets in the region?

sibos

SINGAPORE
12 - 15 October 2015

ADB – How ASEAN+3 can connets bonds markets in the region?

How ASEAN+3 connects Bond markets towards more integrated markets

Satoru (Tomo) Yamadera,
Principal Financial Sector Specialist,
SDCC, ADB

Outline

1. Asian Bond Markets Initiative (ABMI)
2. ASEAN+3 Multi-Currency Bond Issuance Framework (AMBIF)
3. Standardization efforts to integrate the markets
4. Cross-border Settlement Infrastructure Forum (CSIF)
5. Next step

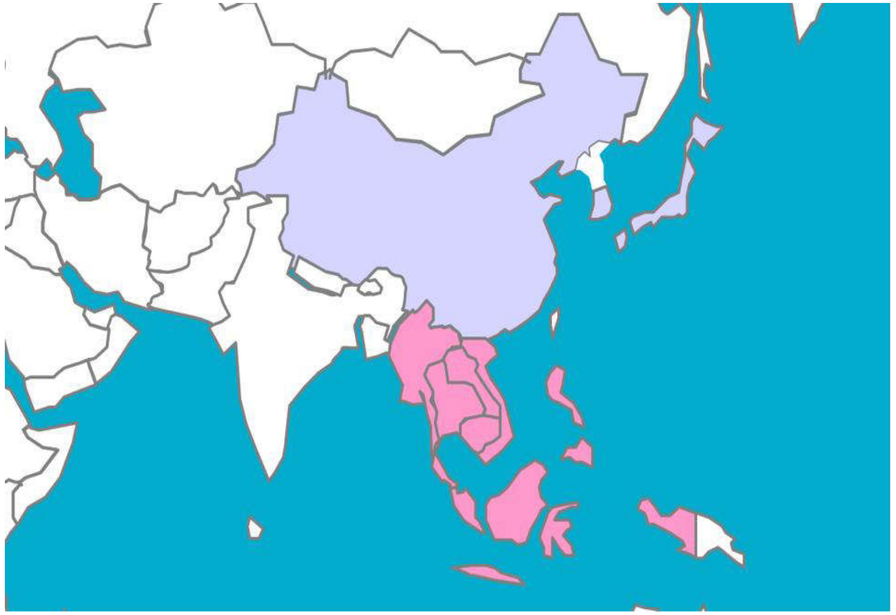
Asian Bond Markets Initiatives (ABMI)

(Chairman's Press Release on the Asian Bond Markets Initiative, 7 August 2003)

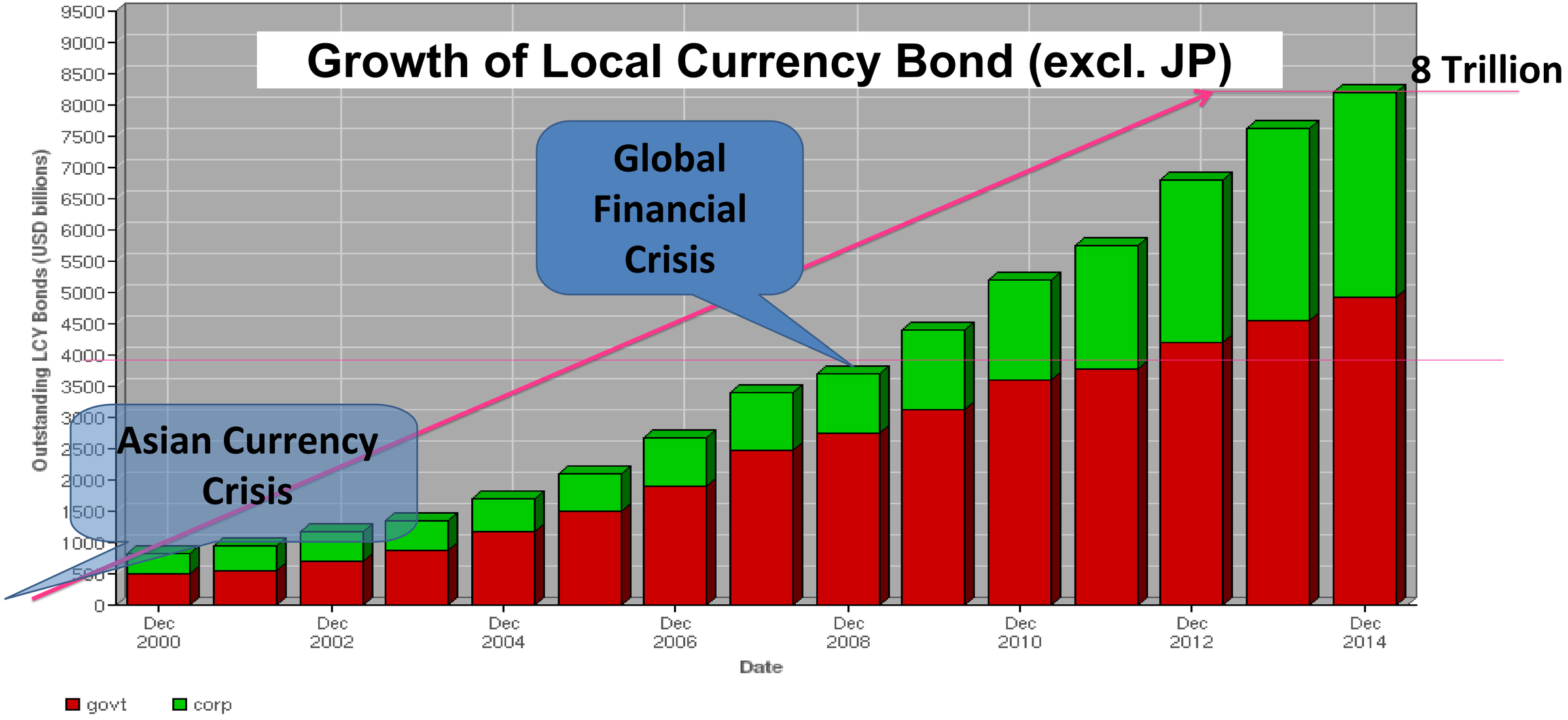
- ABMI aims to develop efficient and liquid bond markets in Asia, which would enable better utilization of Asian savings for Asian investments.

- The ABMI would also contribute to the mitigation of currency and maturity mismatches in financing.

  - ABMI contributes to financial stability by creating multiple channels of financing

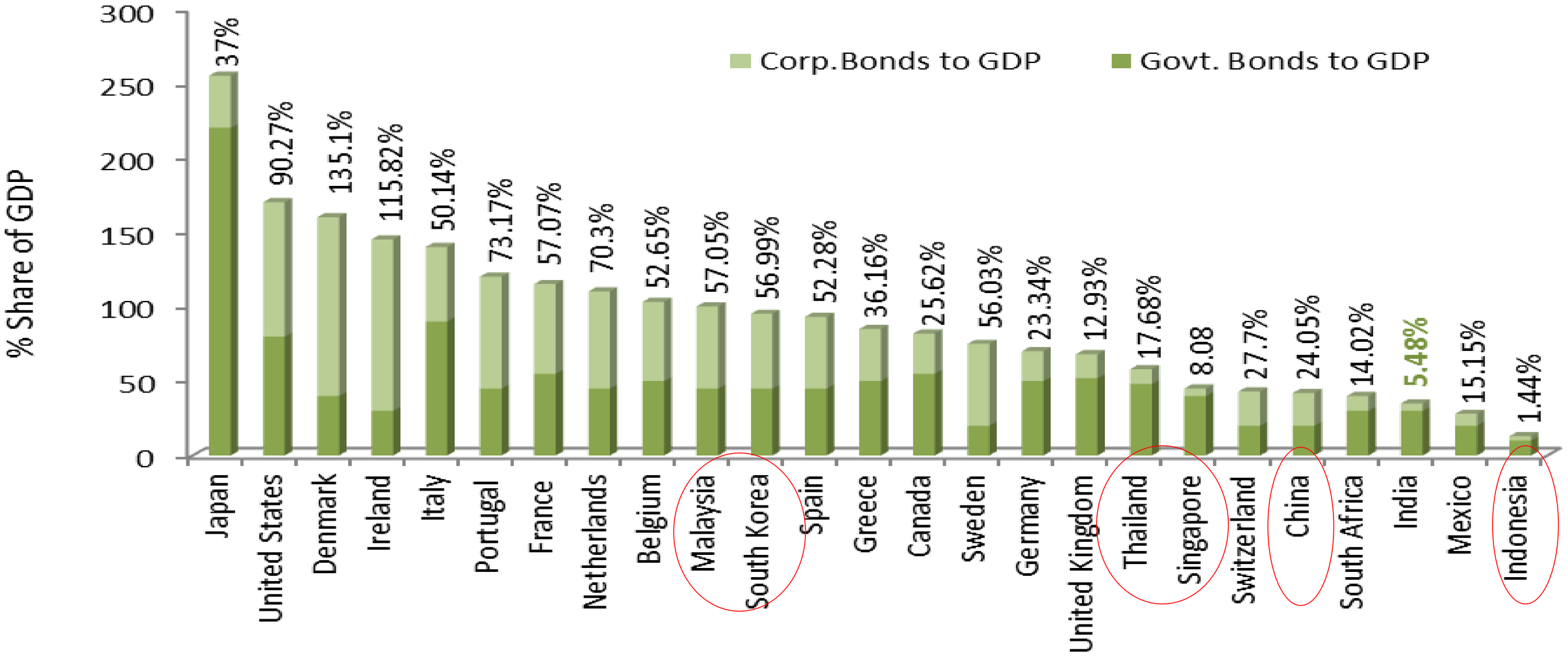


Growth of ASEAN+3 LCY bonds



Source: Asia Bonds Online

Size of Local Currency Bond Markets



Source：ASIFMA（2013）India Bond Market Roadmap
Note: The figure over the bar is share of corporate bonds to GDP

ABMI Evolution

CMIM ($120 Billion) – AMRO <Macroeconomic stability>

Global Financial Crisis
Bond markets as a spare tire of banking systems

Addressing the problem of double mismatch

Asian Currency Crisis

Promoting development of domestic markets

ABO

CGIF

Stronger economic linkages and synchronization of markets

Linking the fragmented markets for a more resilient regional market

AMBIF

Inter-operable market infrastructures

Regional safety net

ASEAN financial integration

+ PRC, JPN, KOR

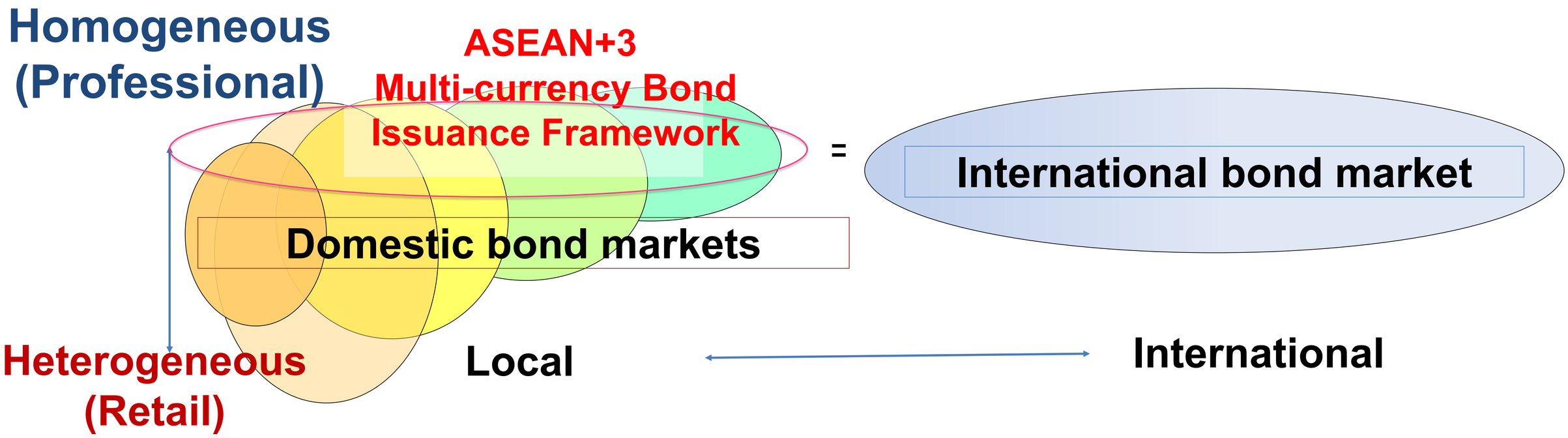
CSD-RTGS Linkages

AMBIF+

More advanced financial infrastructures

ASEAN+3 Multi-Currency Bond Issuance Framework (AMBIF)

AMBIF as a regional nexus



- Due to different degrees of market developments, it is not practical to have a fully standardized bond issuance framework.
- But, common elements may allow connecting the domestic bond markets across the region.

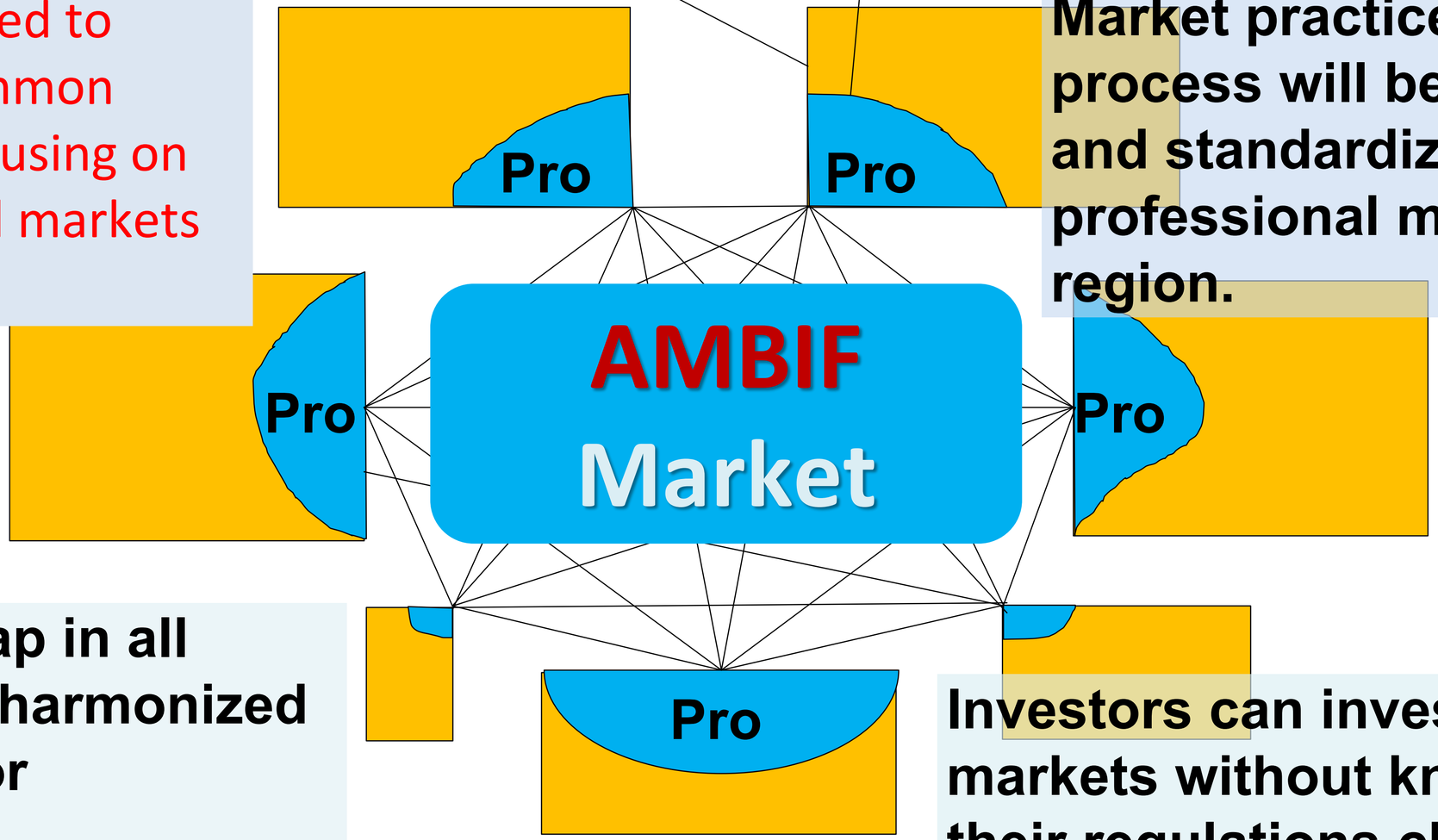
What AMBIF can achieve?

Public Offering Market
Including Retail and General Investors

Professional Investors Market

AMBIF is designed to capture the common elements by focusing on the professional markets in the region.

Market practice and issue process will be harmonized and standardized within the professional markets in the region.



Issuers can tap in all markets with harmonized documents for submission.

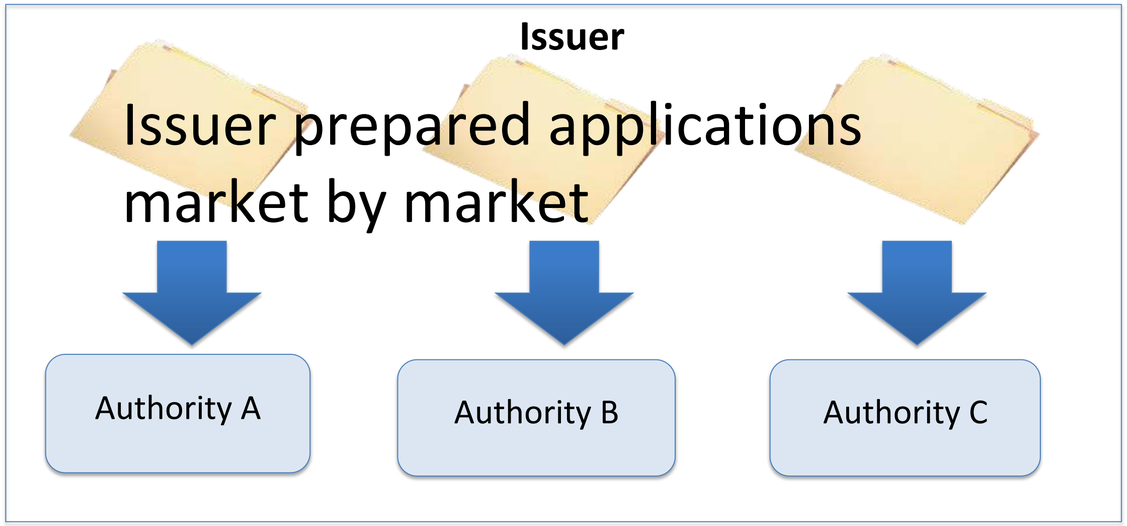
Investors can invest in all markets without knowing their regulations closely.

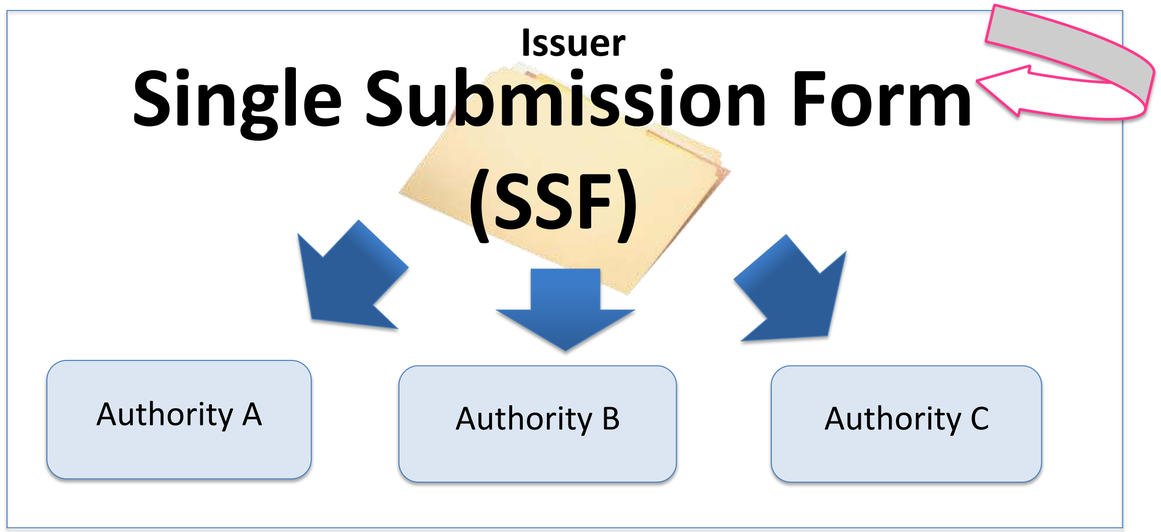
AMBIF Elements

AMBIF Elements (AMBIF Core Components)	Brief Description
Domestic Settlement	Bonds and notes are settled at a national CSD in ASEAN+3 markets.
Harmonized Documents for Submission (Single Submission Form)	A common approach is of submitting information as input for regulatory process(es) where approval or consent is required. Appropriate disclosure information along with an ADRB recommendation needs to be included.
Registration or profile listing at ASEAN+3 (Place of continuous disclosure)	Information on bonds, notes, and issuers needs to be disclosed continuously in ASEAN+3 markets. Registration or a listing authority function is required to ensure continuous and quality disclosure.
Currency	The denomination of an issue is generally expected to be in the domestic currency of each ASEAN+3 market.
Scope of Issuer	Resident of ASEAN+3
Scope of Investors	Professional investors defined in accordance with applicable laws and regulations, or market practice, in each ASEAN+3 market

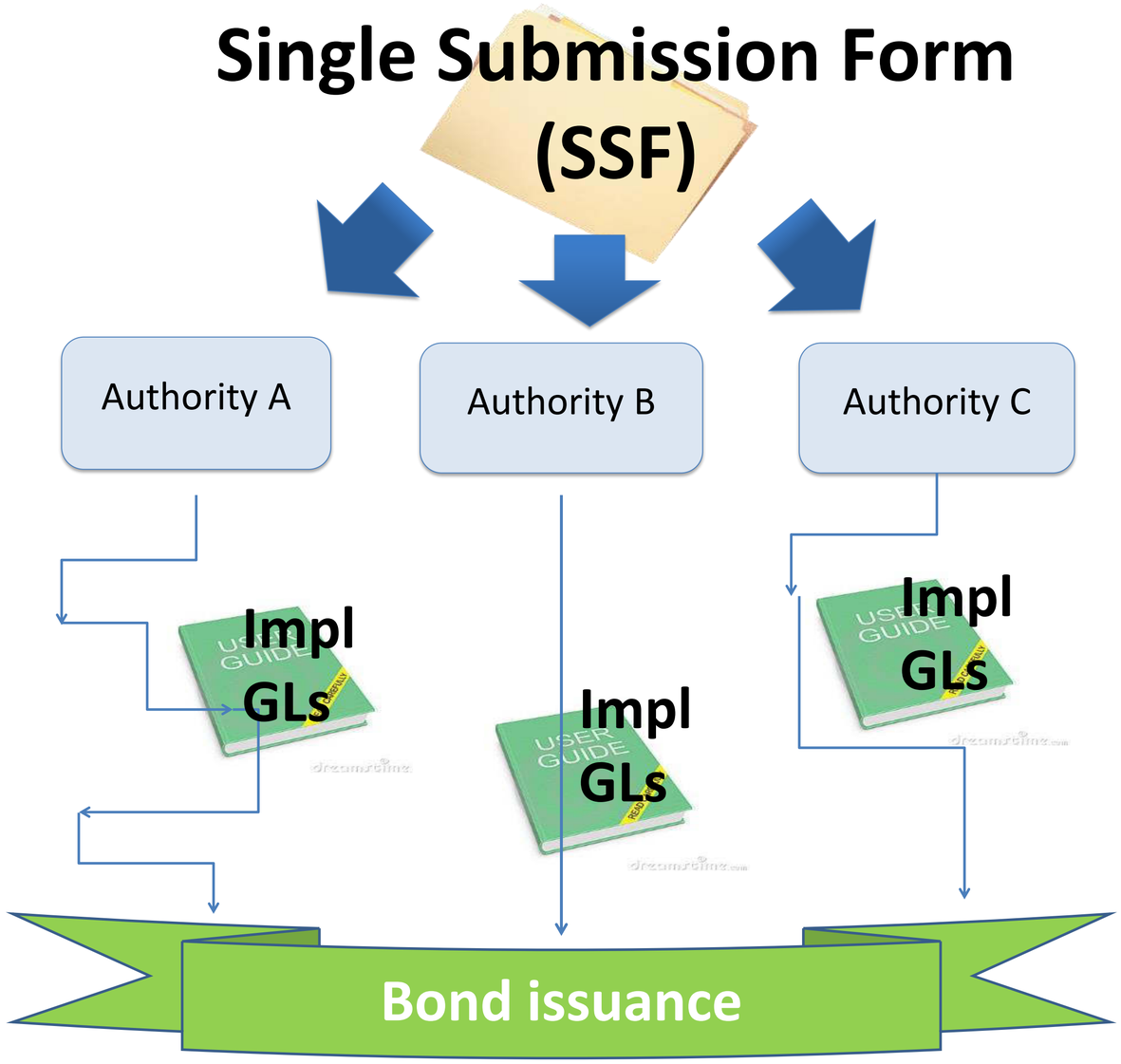
Key AMBIF Document (SSF)

- **Single Submission Form (SSF)** is designed to facilitate an AMBIF bond and note issuance application to regulatory, listing, and registration authorities in each participating market.
- SSF is prepared for the benefit of issuers aiming to issue bonds/notes to Professional Investors in multiple ASEAN+3 markets.
- But investors can also be benefitted from the standardization of document.





Key AMBIF documents (Impl GL)



- SFF should be referenced to **the AMBIF Implementation Guidelines**, which explain specific issuance processes in each market.

- The Implementation Guidelines increase market transparency.
  - Impl GLs should minimize or reduce legal uncertainty.
  - Where a market does not, or no longer, requires the physical submission of documentation, the SSF can serve as a checklist or a guiding template while the Implementation Guidelines should always be able to support issuance application in any form.

Additional AMBIF Features

- Language of documentation:
  - English
- Governing law and jurisdiction:
  - Governing law related to settlement needs to be local;
  - However, the governing law and jurisdiction for specific service provisions may be negotiated and agreed between the parties involved in the issuance.

- Other consideration in the next steps
  - note issuance program
  - credit rating, etc.

AMBIF Participating Markets

	Place of Issuance	Language for Common Document for Submission	Law Related to Settlement	Governing Law for T&C (e.g. Bankruptcy and Dispute Resolution)	Possible Issuance Currencies
	ICSD	English	English	English	USD*, JPY*, CNY*
AMBIF Markets	Hong Kong, China	English	Hong Kong	Hong Kong, English, or agreed	HKD, CNH, USD*, JPY*, others
AMBIF Markets	Japan	English	Japanese	Japanese	JPY, USD*, others
AMBIF Markets	Malaysia	English	Malaysian	Malaysian, English, or agreed	MYR, USD*, CNH*
AMBIF Markets	Philippines	English	Philippine	Philippines, English, United States, or agreed	PHP, USD*
AMBIF Markets	Singapore	English	Singapore	Singapore, English, or agreed	SGD, USD*, JPY*, CNH*, others
AMBIF Markets	Thailand	English	Thai	Thai or agreed	THB, USD*, CNH*
	Republic of Korea	English	Korean	Korean	KRW, USD*
	People's Republic of China	Chinese	Chinese	Chinese	CNY
	Indonesia	Indonesian (and?) English	Indonesian	Indonesian	IDR

* These are foreign-currency denominated domestic bonds .

AMBIF Pilot issuance

ADB

2014- 2Q 2015

Completion of drafting SSF and Implementation Guidelines

3Q 2015-4Q 2015

Publication of Phase 3 Reports including SSF and Impl GLs

Pilot issues
28 Sept

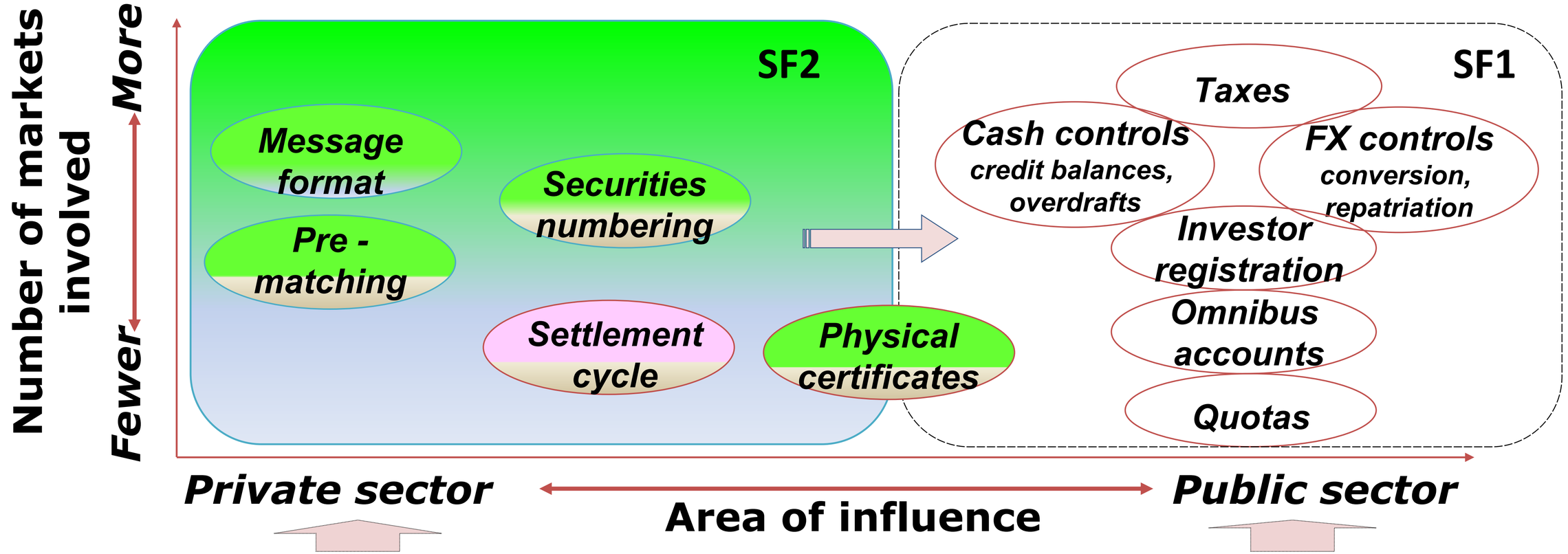
AMBIF LCY issues in ASEAN+3

High level common documentation

Further harmonization of market practices and revisions of SSF and Impl GLs.
Further expansion of AMBIF

Standardization efforts to integrate the markets

Barriers identified by GoE and Progresses



Improve information flows in the markets SF1

Timely information, uniform disclosure, price transparency, market statistics, information on corporate actions and legal information such as bankruptcy and insolvency laws -> ASEAN+3 Bond Market Guide

Source: GOE Report modified by ADB consultant

Work under ASEAN+3 Bond Market Forum

ADB

(Step 1)
Identification of transaction flows of cross-border bond settlement

- ✓ Government bonds
- ✓ Corporate bonds

(Step 2)
Further identification of transaction flows

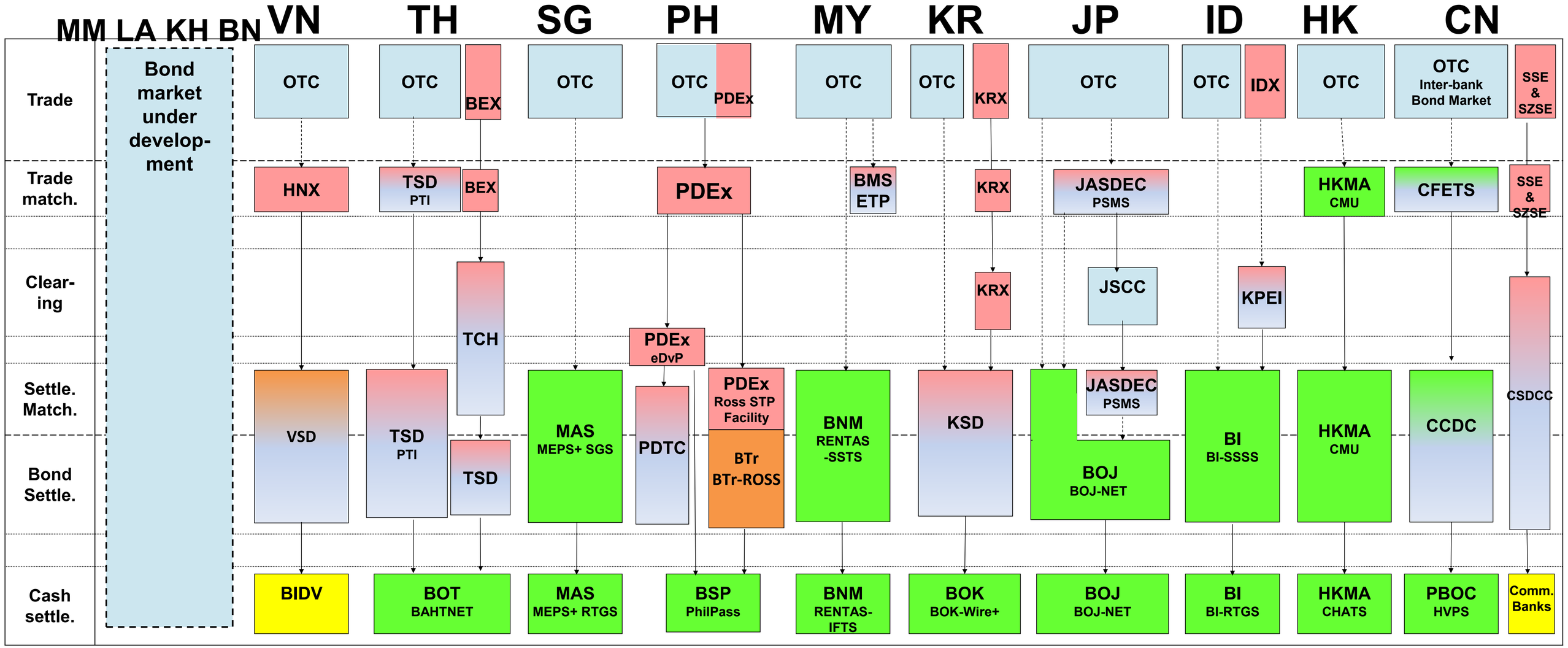
- ✓ Trades, coupon payment, and redemption

(Step 3)
Identification of transactions and message items to be harmonized and standardized

- ✓ Promotion of ISO 20022, BIC and ISIN

➢ Create awareness of international standards, and support discussion and implementation of international standards.

Identification of Government Bond Transaction



NOTE:

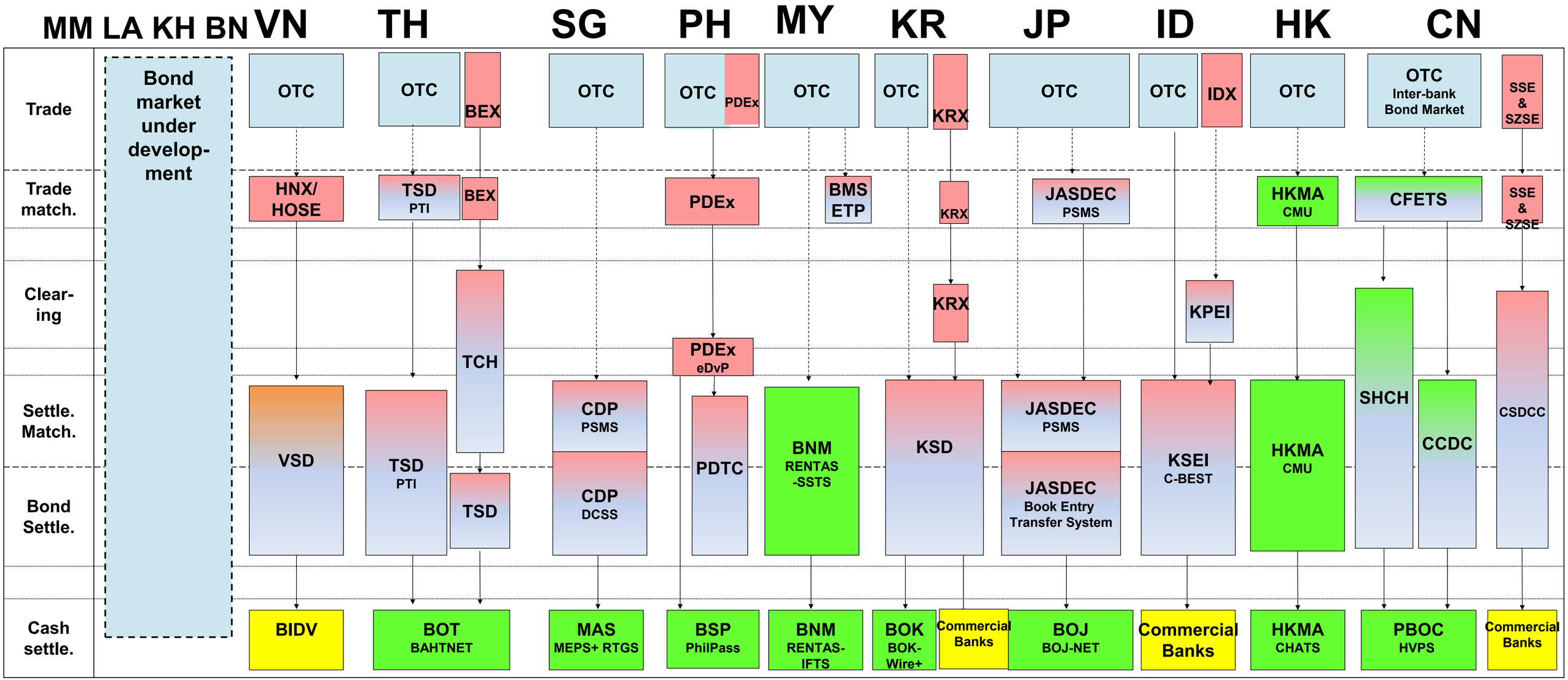
- Exchange
- Exchange related
- Central Bank
- Central Bank related
- Government
- Government related
- Commercial Bank

→ Direct inter-system connection

⇢ Indirect connection; trade data (bond settlement instructions) are entered into CSD by agent custodians

This diagram shows entities involved in major types of transactions.
Retail bond markets are not included in this diagram.

Identification of Corporate Bond Transaction



NOTE:

Exchange Market | Exchange related | Central Bank | Central Bank related | Government | Government related | Commercial Bank

→ Direct inter-system connection

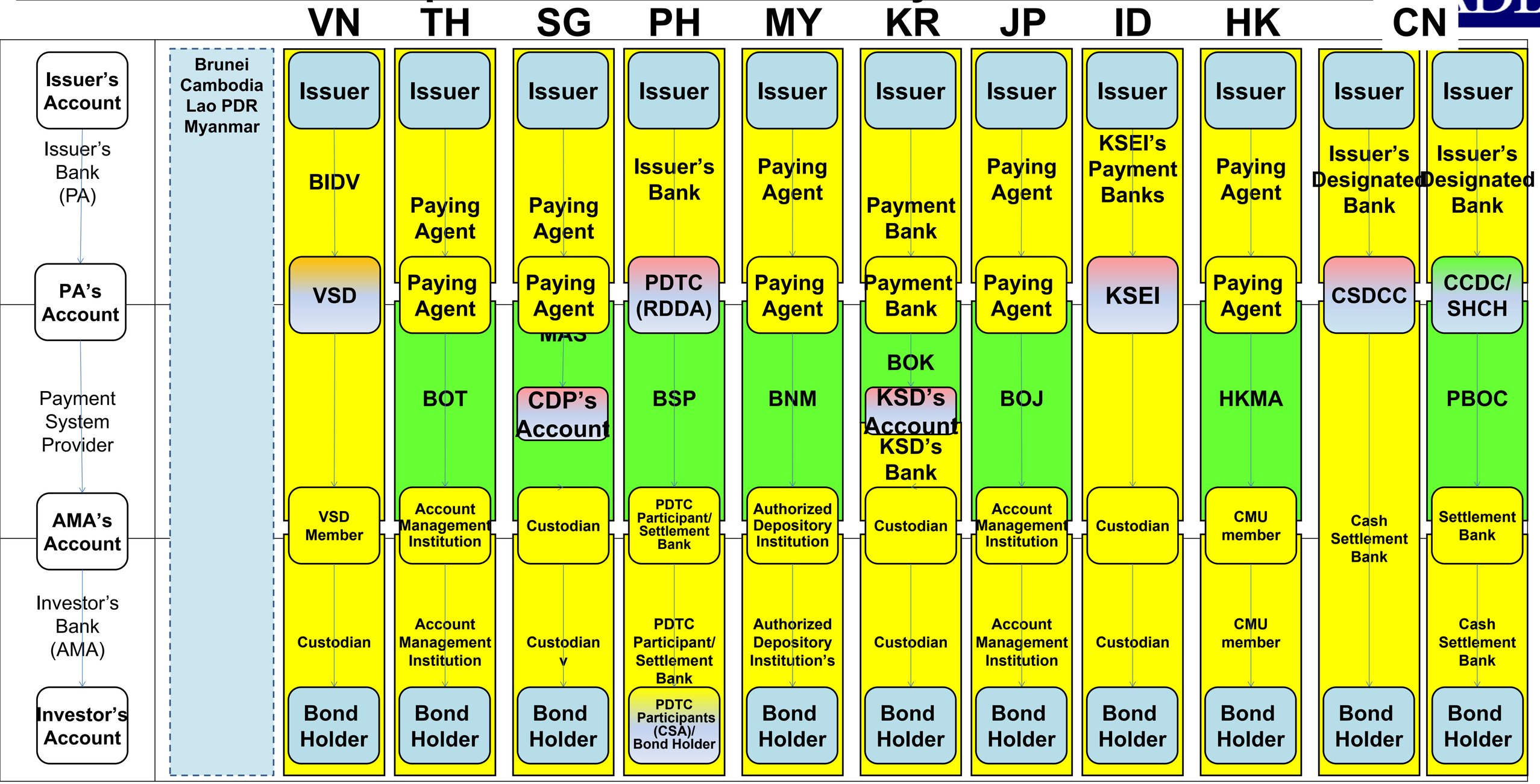
⇢ Indirect connection; trade data (bond settlement instructions) are entered to CSD by agent custodians.

This diagram shows entities that are involved in major types of transactions.
Retail bond markets are not included in this diagram.

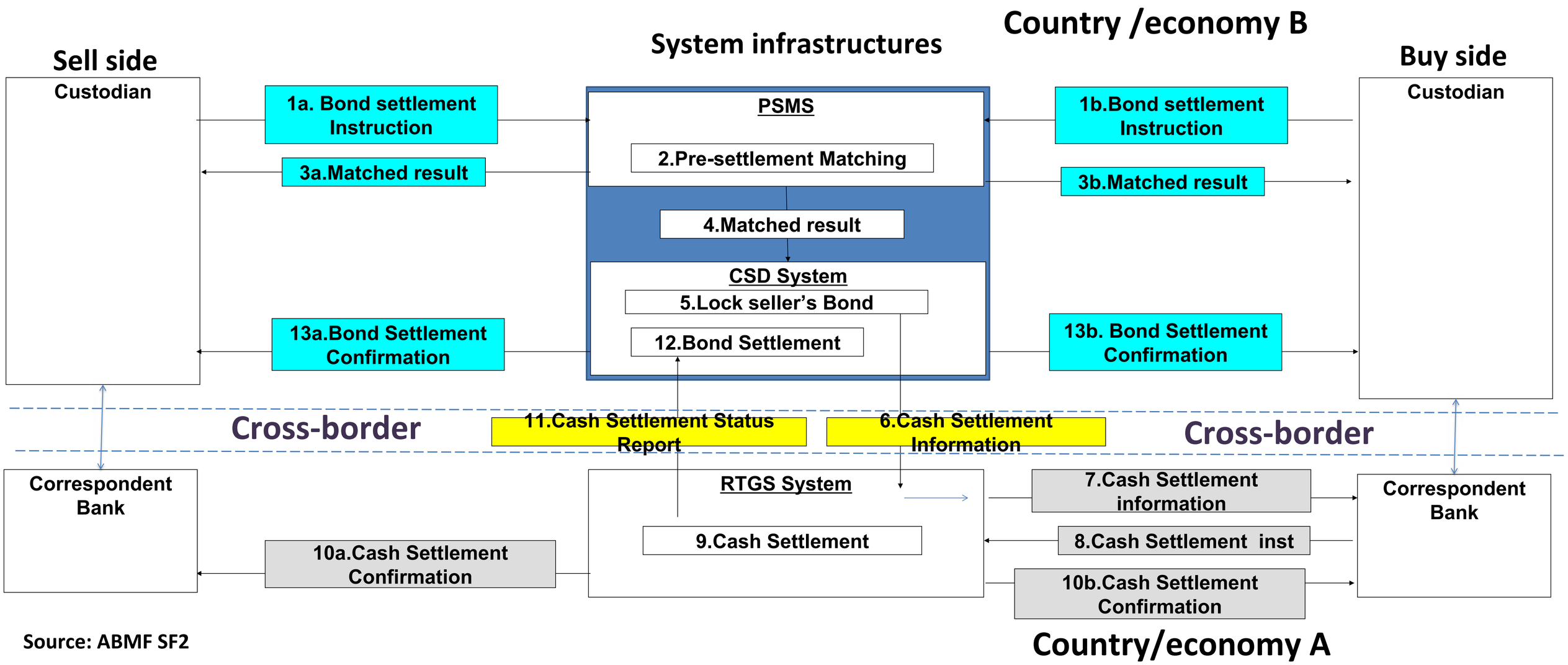
Identification of Government Bond Interest Payment Related Entities

	Brunei Cambodia Lao PDR Myanmar	VN	TH	SG	PH	MY	KR	JP	ID	HK	CN	
Issuer's Account		MOF	MOF	MOF	BTr	MOF	MOSF	MOF	MOF	Treasury Dept.	MOF	MOF
Issuer's Bank (PA)		BIDV	BOT	MAS	BSP	BNM	BOK	BOJ	BI	HKMA	PBOC	PBOC
PA's Account		VSD	BOT	MAS	BTr	BNM	BOK	BOJ	BI	HKMA	CCDC	CCDC
Payment System Provider							KSD's Account	BOJ	BI		Commercial Bank	
AMA's Account		VSD Member	Account Management Institution	Custodian	ROSS Participant	Authorized Depository Institution	Custodian	Account Management Institution	Participant/ Sub-Registry	CMU member	CSDCC	Settlement Bank
Investor's Bank (AMA)		Custodian	Account Management	Custodian	ROSS Participants/	Authorized Depository	Custodian	Account Management	Participant/Sub Registry's	CMU	Cash Settlement	Cash Settlement
Investor's Account		Bond Holder	Bond Holder	Bond Holder	Bond Holder	Bond Holder	Bond Holder	Bond Holder	Bond Holder	Bond Holder	Bond Holder	Bond Holder

Identification of Corporate Bond Interest Payment Related Entities



Draft reference DVP Flow (a model to start discussions)



Source: ABMF SF2

Adoption schedule of International Standards by CSDs

	CSD	Name of Bond Settlement System	Inst.	Standardization of Message items (SSS)							System renewal	
				ISO		ISIN	BIC	Charac. Code set	Comm protocol	Overall	Inauguration current system	Reconstruct. period
				ISO15022	ISO20022							
BN	AMBD	NPSS	G		Y (2016)	Y (201X)	Y	Y	Y	Y (2016)		2016
BN	(TBD)		C		Y (201X)	Y (201X)	Y	Y	Y	Y (201X)		201X
CN	CCDC	CBGS	G/C	N	Y	Y	Y	Y	Y	Y	2013	
CN	CSDC	MNS	G/C	N	Y (201X)	Y (201X)	Y	Y	Y	Y (201X)	Nov. 2011	
CN	SHCH	SHCH-SSS	C	N	Y (201X)	Y (201X)	Y	Y	Y	Y (201X)	Dec 2011	
HK	HKMA	CMU	G/C	Y	N	Y	Y	Y	Y	Y	Mar. 1990	
ID	BI	BI-SSSS	G	Y	Y (201X)	Y	Y	Y	Y	Y (201X)	Mar 2003	2018
ID	KSEI	C-BEST	C	Y	Y (2016)	Y	Y(2016)	Y	Y	Y(2016)		2016
JP	BOJ	BOJ-NETJGB Service	G	N	Y (2015)	Y (2015)	Y (2015)	Y	Y	Y(2015)	1990/Jan 2001	2015
JP	JASDEC	BETS	C	Y	Y	Y	Y	Y	Y	Y	Jan. 2014	
KH	CSX	-	G/C	N								
KR	KSD	SSS/SAFE+	G/C	N	Y (201X)	Y	Y	Y (201X)	Y	Y (201X)	Nov 2011	
LA	BOL	-	G/C	N								
MM	CBM	-	G/C	N	Y (201X)	Y (201X)	Y (2015)	Y (2015)	Y (2015)	Y (201X)		2015
MY	BNM	RENTAS SSTS	G/C	Y (2016)	Y (2018)	Y	Y (2017)	Y	Y	Y(2018)	Jul 1999	2018
PH	BTr	BTr-ROSS	G	Y (2015)	Y (2015)	Y (2015)	Y (2015)	Y	Y	Y (2015)	Nov 1996	2015
PH	PDTC	PDTC Depository	G/C	Y (2015)	Y (2015)	Y (2015)	Y (2015)	Y	Y	Y (2015)	Mar 1995	2015
SG	MAS	MEPS+ SGS	G	Y	N	Y	Y	Y	Y	Y	Dec 2006	
SG	CDP	DCSS	C	Y (2015)	Y (2015)	Y	Y (2015)	Y	Y	Y (2015)	-	2015
TH	TSD	PTI	G/C	Y	N	Y	Y	Y	Y	Y	Oct 2007	2019
VN	VSD	VSD-BES	G/C	Y	Y(2016)	Y	Y (2016)	Y	Y	Y (2016)	May. 2014	2016

Adoption schedule of IS by CBs

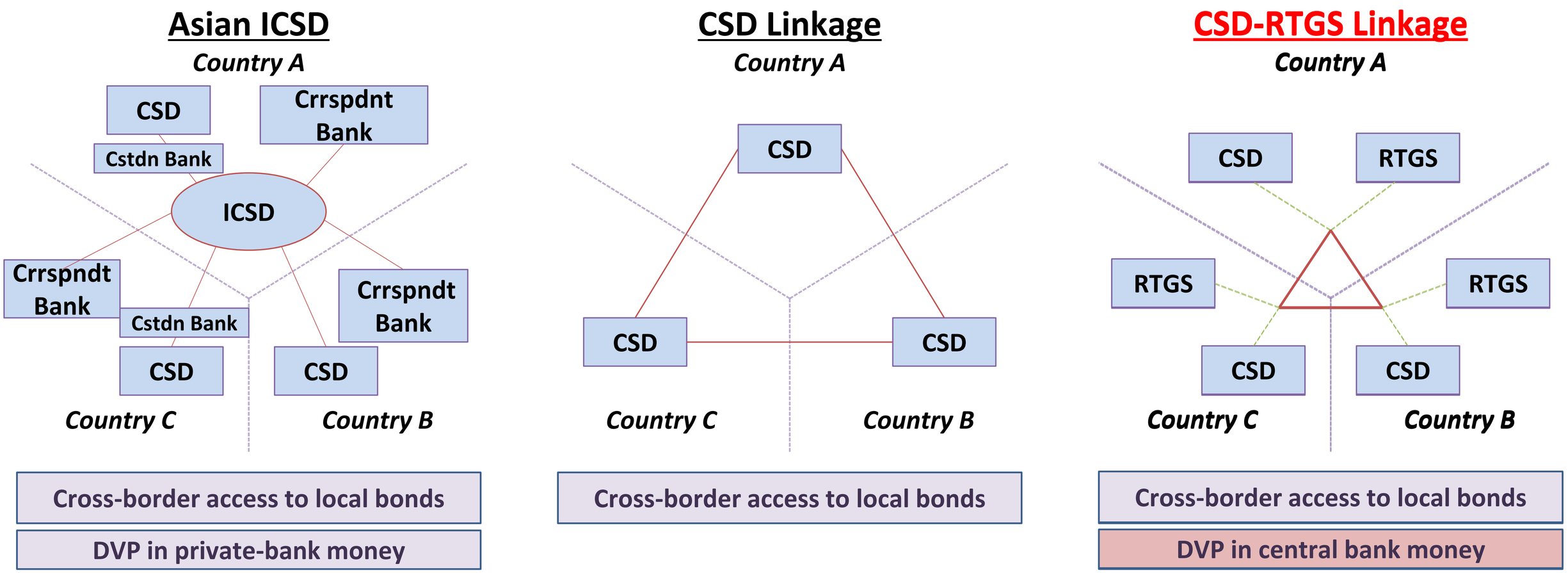
		Name of the System	Standardization of Message Items (RTGS)						System renewal	
	Operator		ISO messages		BIC	Char. Code set	Commun. protocol	Overall	Inauguration current system	Reconstruction period
			ISO15022	ISO20022						
BN	AMBD	-	N	Y	Y	Y	Y	Y	2015	
CN	PBOC	HVPS	N	Y	Y	Y	Y	Y	2014	
HK	HKMA	CHATS	Y	N	Y	Y	Y	Y	Dec 1996	
ID	BI	BI-RTGS	Y	Y (201X)	Y (2014)	Y	Y (2014)	Y (201X)	Nov 2000	2015
JP	BOJ	BOJ-NET	N	Y (2015)	Y (2015)	Y	Y	Y (2015)	1987, Nov 2011	2015
KH	NBC	-	N	Y (201X)	Y (201X)	Y (201X)	Y (201X)	Y (201X)		201X
KR	BOK	BOK-Wire	N	Y (201X)	Y	Y	Y	Y (201X)	Apr 2009	
LA	BOL	-	Y		Y	Y	Y	Y		
MM	CMB	-	N	Y (2015)	Y (2015)	Y (2015)	Y (2015)	Y (201X)		2015
MY	BNM	RENTAS IFTS	Y (2016)	Y (2018)	Y(2017)	Y	Y	Y(2018)	Jul 1999/2004/2011	2018
PH	BSP	PhilPaSS	Y	Y (2015)	Y	Y	Y	Y (2015)	1995/Dec 2002	2015
SG	MAS	MEPS plus	Y	N	Y	Y	Y	Y	Dec 2006	2015
TH	BOT	BAHTNET	Y	N	Y	Y	Y	Y	2013	2019
VN	SBV (BIDV)		N	Y (201X)	Y (201X)	Y (201X)	Y (201X)	Y (201X)	2010	201X

Notes: The State Bank of Viet Nam is planning to be a cash settlement operator by adopting ISO 20022. Information on the People's Republic of China; Hong Kong, China; the Republic of Korea; Singapore; and Thailand needs to be updated.
Source: ABMF SF2.

Cross-border Settlement Infrastructure Forum (CSIF)

CSD-RTGS Linkage as Regional Settlement Intermediary model

CSD-RTGS Linkage was chosen as the most possible model to implement RSI in ASEAN+3



Cross-border access to local bonds

DVP in private-bank money

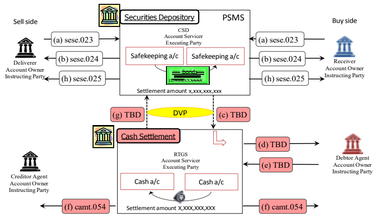
Cross-border access to local bonds

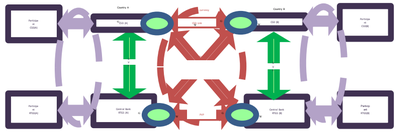
Cross-border access to local bonds

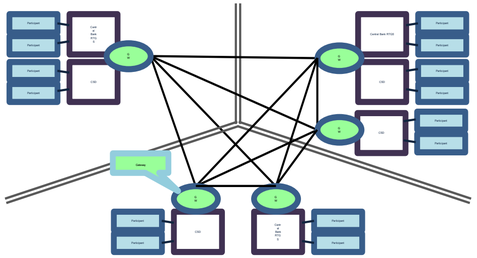
DVP in central bank money

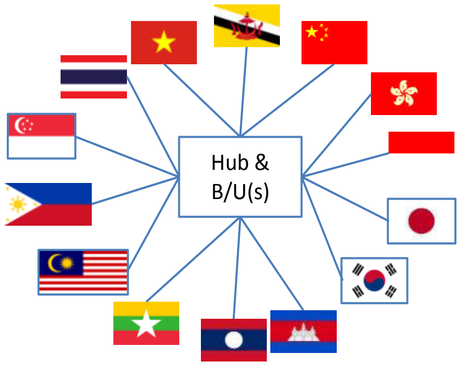
CSD-RTGS Linkage enables the local bonds to be settled in Delivery versus Payment (DVP) via central bank money, which ensures safety of settlement and is compliant with the international standards as well as being cost-efficient.

CSIF Roadmap









Develop standard message flows and items

Specifying essential user requirements

Develop CSD-RTGS Linkage

Defining detailed user requirements, design, coding, and testing

Implement CSD-RTGS Linkages

Starting production operation of CSD-RTGS Linkages

Implement integrated solution

Developing a central hub and connecting each CSD and RTGS system with the hub

Implementation phase 1
2015-2016

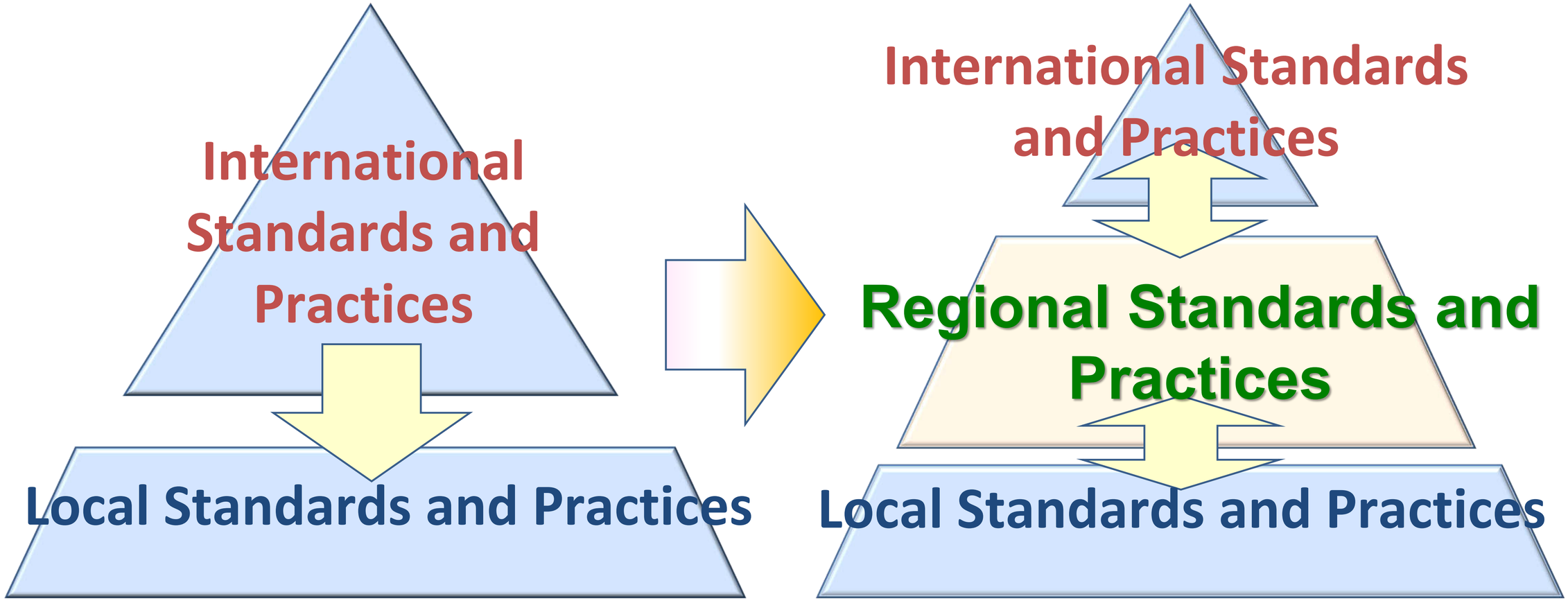
Implementation phase 2
2017-2018

Implementation phase 3
2019-2020

Integration phase
2020-

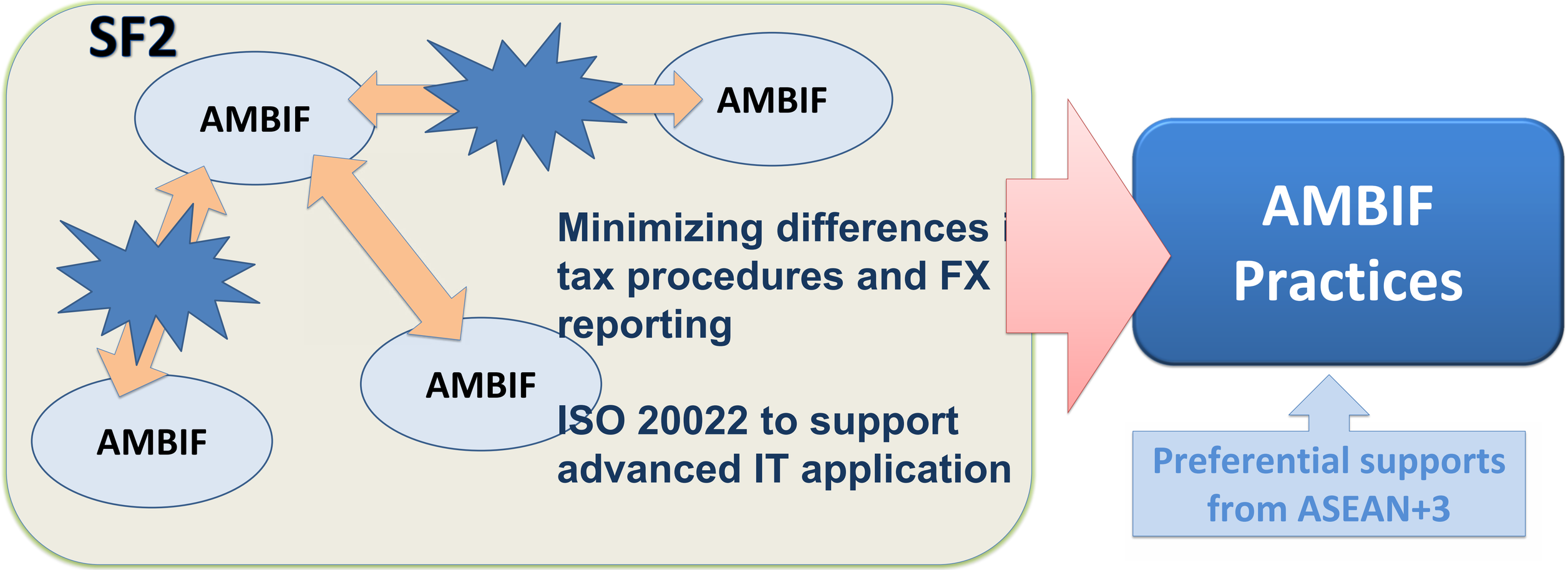
Challenges for harmonization

Global standardization efforts should not be one way; the region needs to be able to create regional standards and practices which will be recognized as international standards and practices.



Next steps

Starting from niche: AMBIF



Conclusion

- **ABMI**
  - Success
  - Market fragmentation
  - Connecting the markets and establishing the regional safety net
- **AMBIF**
  - Nexus to connect the markets
  - Strategic approach: starting from where possible
- **Application of advanced IT**
  - International standards
  - CSD-RTGS linkages

- Collaboration with the Private Sector (ABMF)
  = Key for the integration!

Thank you

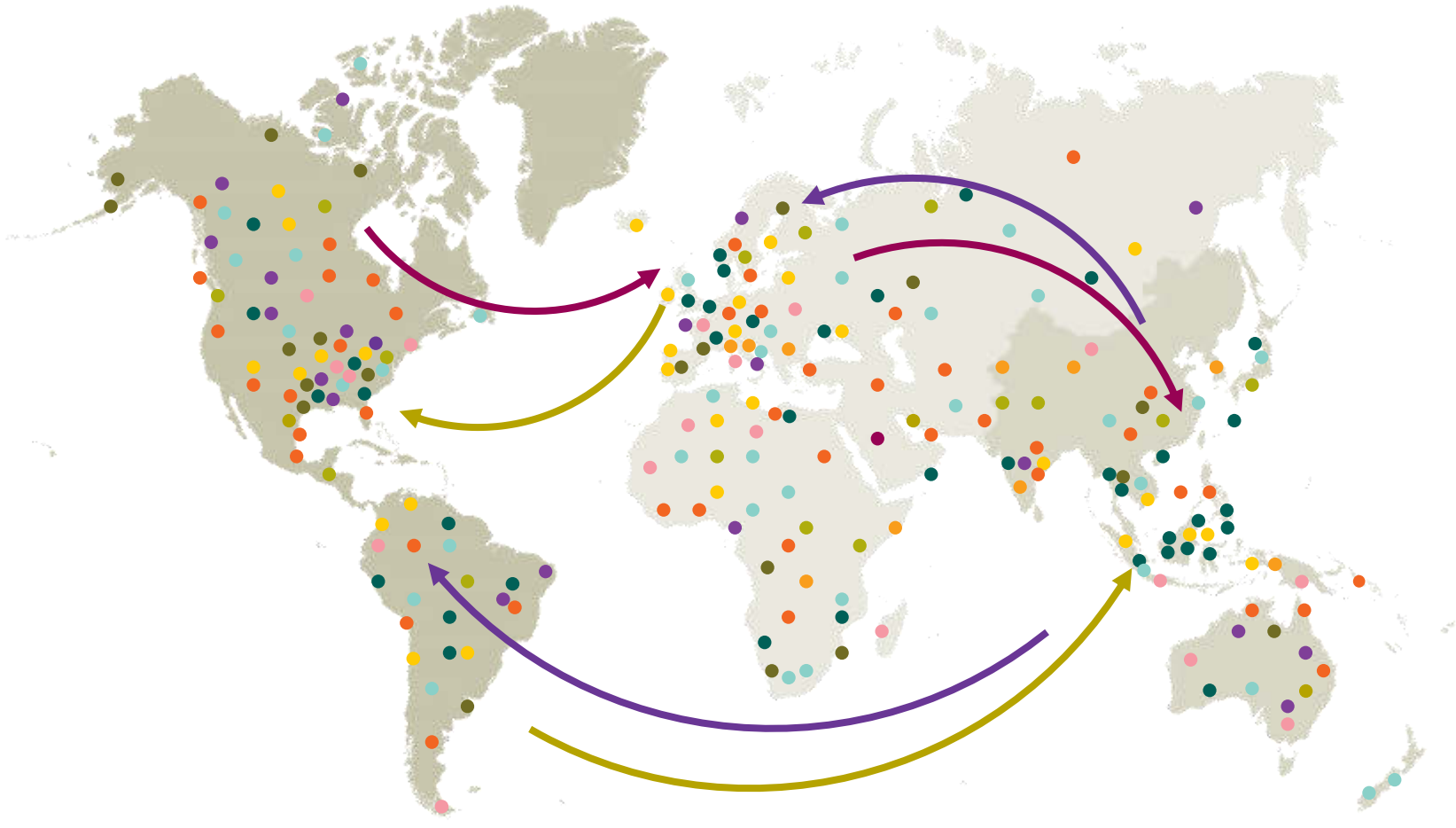
For further info: syamadera@adb.org

sibos

SINGAPORE
12 - 15 October 2015

ADB – How ASEAN+3 can connets bonds markets in the region?

The global provider of secure financial messaging services



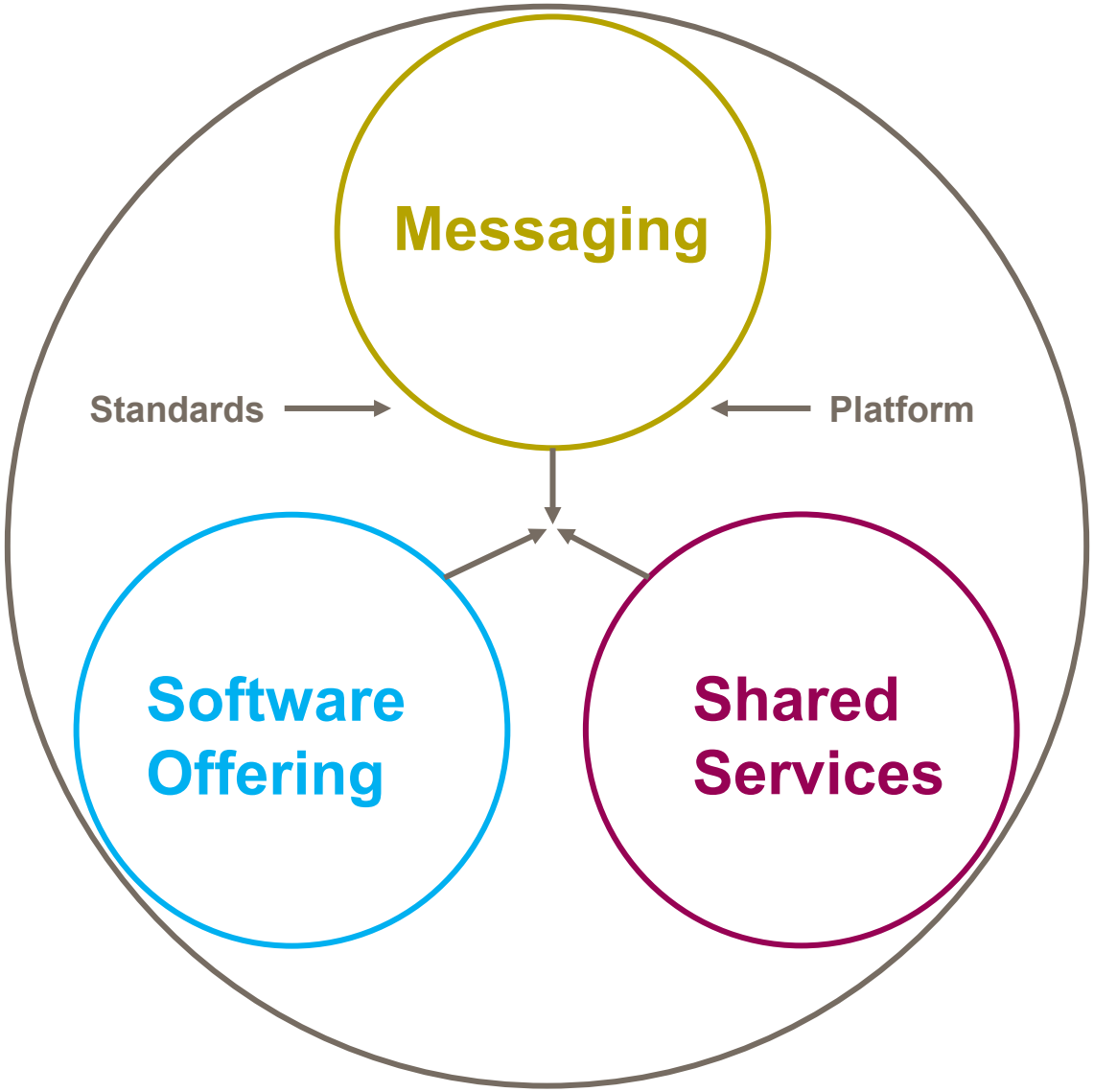
User-owned cooperative

Overseen by central banks

Servicing 150+ settlement infrastructures globally

ISO 20022 enabler

Our offering to the community



Sibos

Reflecting on the passed four days

400
Speakers

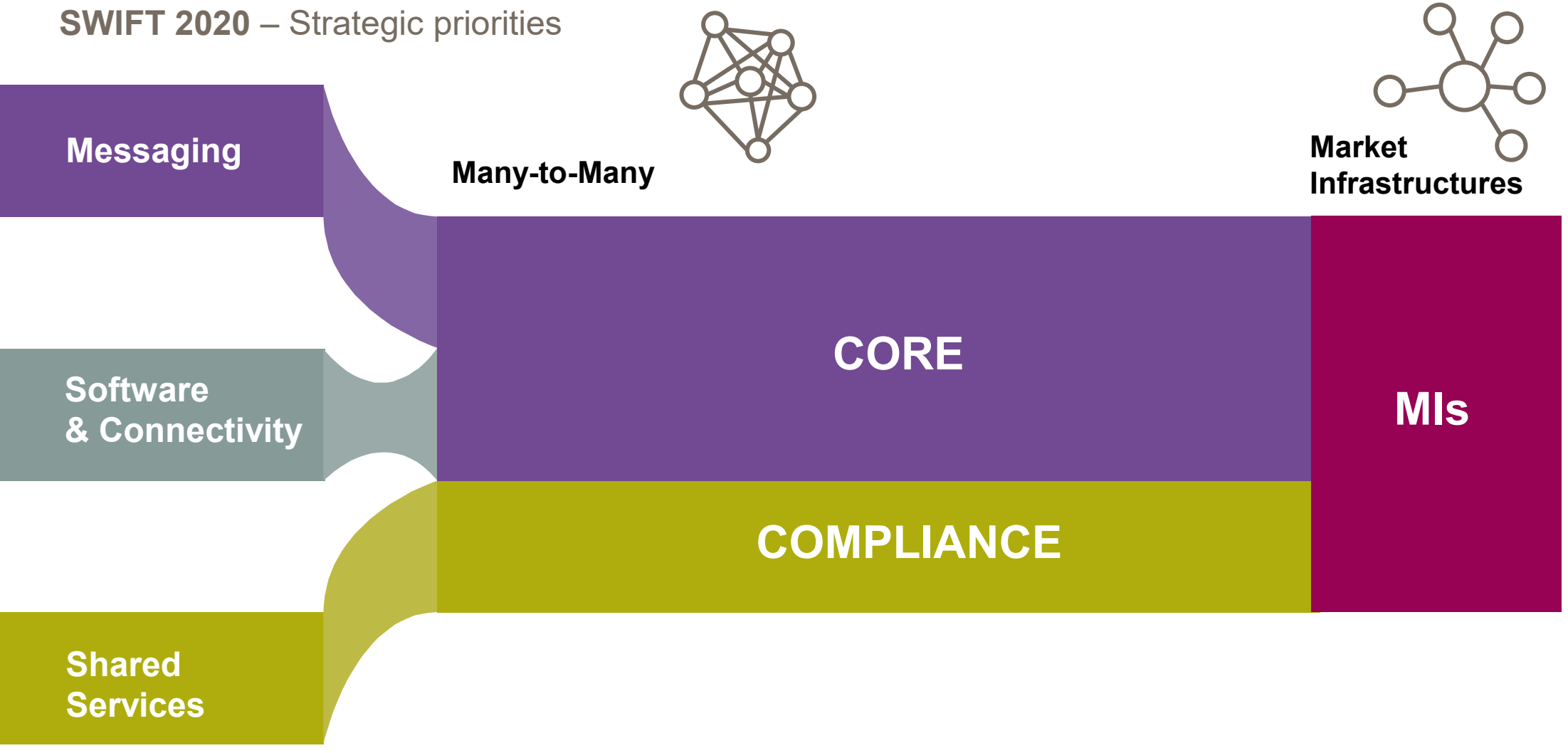
8,000
Delegates

200
Exhibitors

120
Press

125
Sessions

SWIFT 2020 – Strategic priorities



SWIFT 2020 – Strategic priorities

Messaging

Software & Connectivity

Shared Services

Many-to-Many

Grow and strengthen core ‘many-to-many’ financial messaging, connectivity and closely adjacent products and services

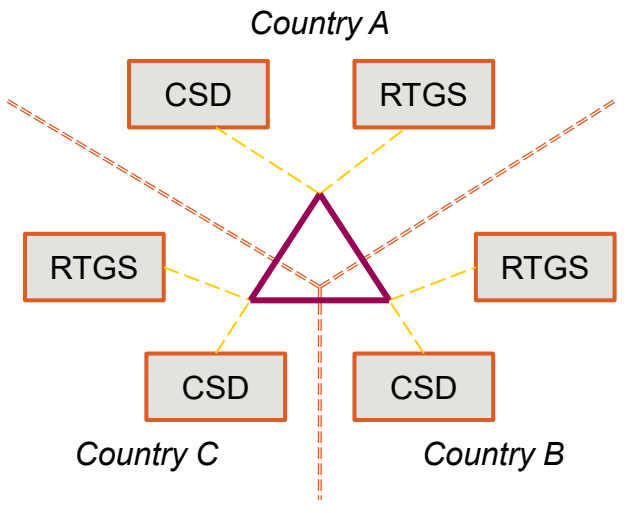
Build our Financial Crime Compliance portfolio to meet the full spectrum of related challenges

Market Infrastructures

Expand and deepen offerings for Market Infrastructures

CSD-RTGS Linkage
SWIFT, the natural choice

CSD-RTGS Linkage



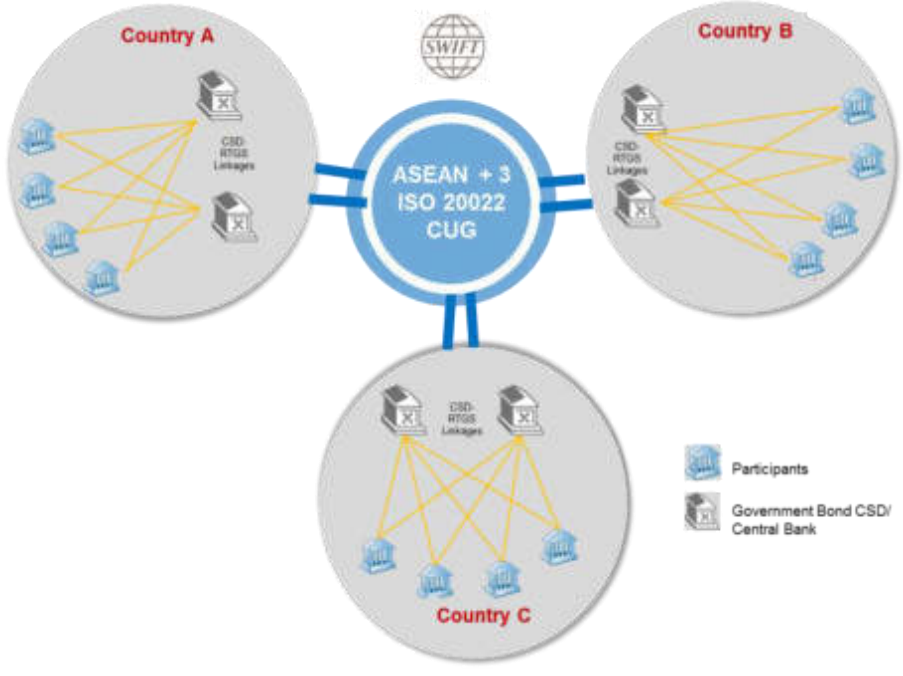
Cross-border access to local bonds

DVP in central bank money

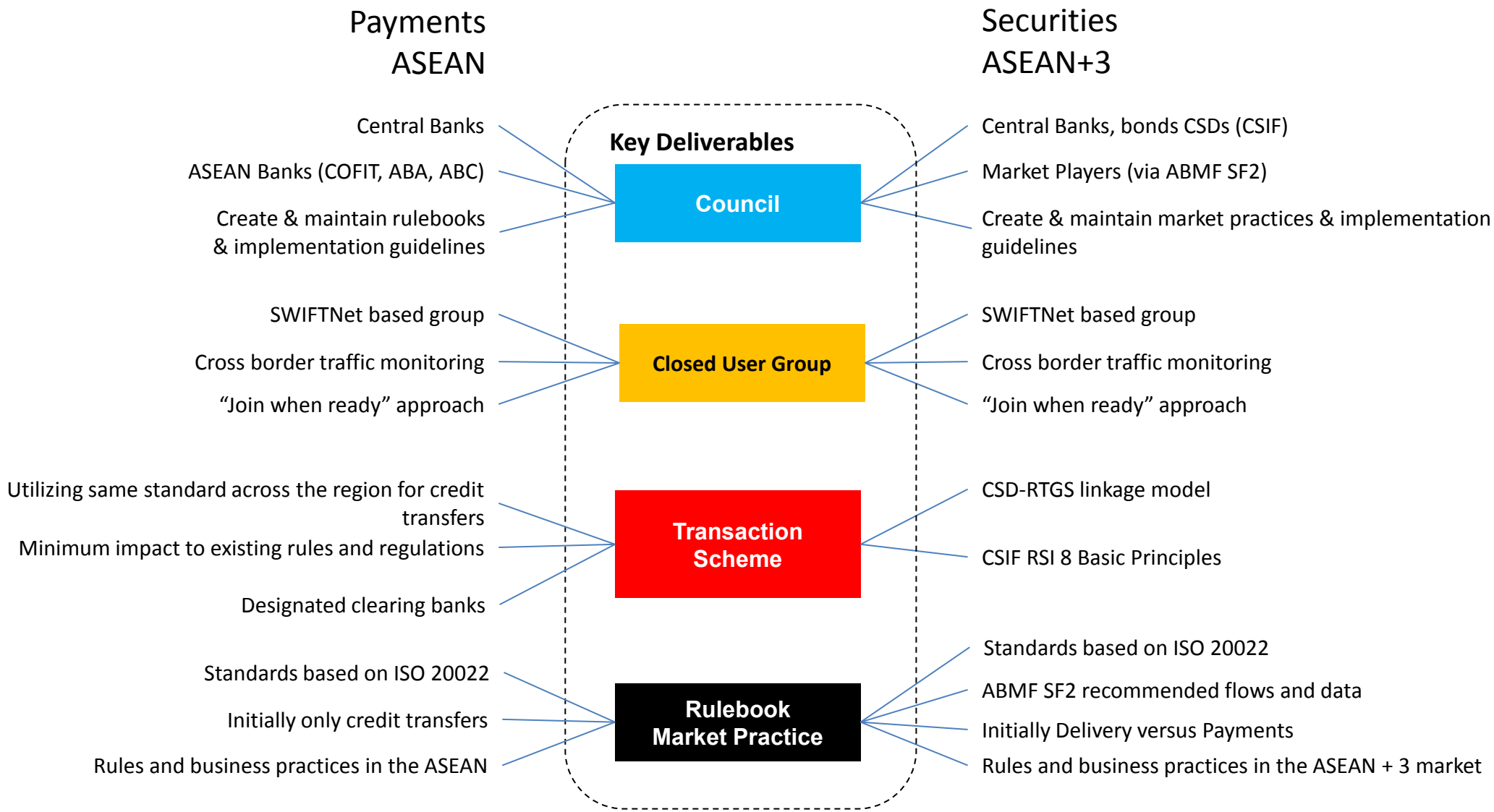
SWIFTNet user

Country	Central Bank	Gvt Bonds CSD
JP	✓	✓
CN	✓	✓ x
HK	✓	✓
TW	✓	✓
KR	✓	✓
SG	✓	✓
MY	✓	✓
VN	✓	x
PH	✓	✓
ID	✓	✓
BN	✓	✓
KH	✓	o
TH	✓	✓
MM	✓	o
LA	✓	o

✓ connected or planned
x not connected
o no infrastructure



Commonalities with Payments Initiatives



SWIFT

ADB

Session 1: Reporting on ASEAN+3 Multi-currency Bond Issuance Framework, New Working Groups, and Bond Market Guide

20th ABMF Meeting

Satoru (Tomo) Yamadera,
Principal Financial Sector Specialist,
SDCC, ADB

Update on the ASEAN+3 Multi-Currency Bond Issuance Framework (AMBIF)

Update on AMBIF

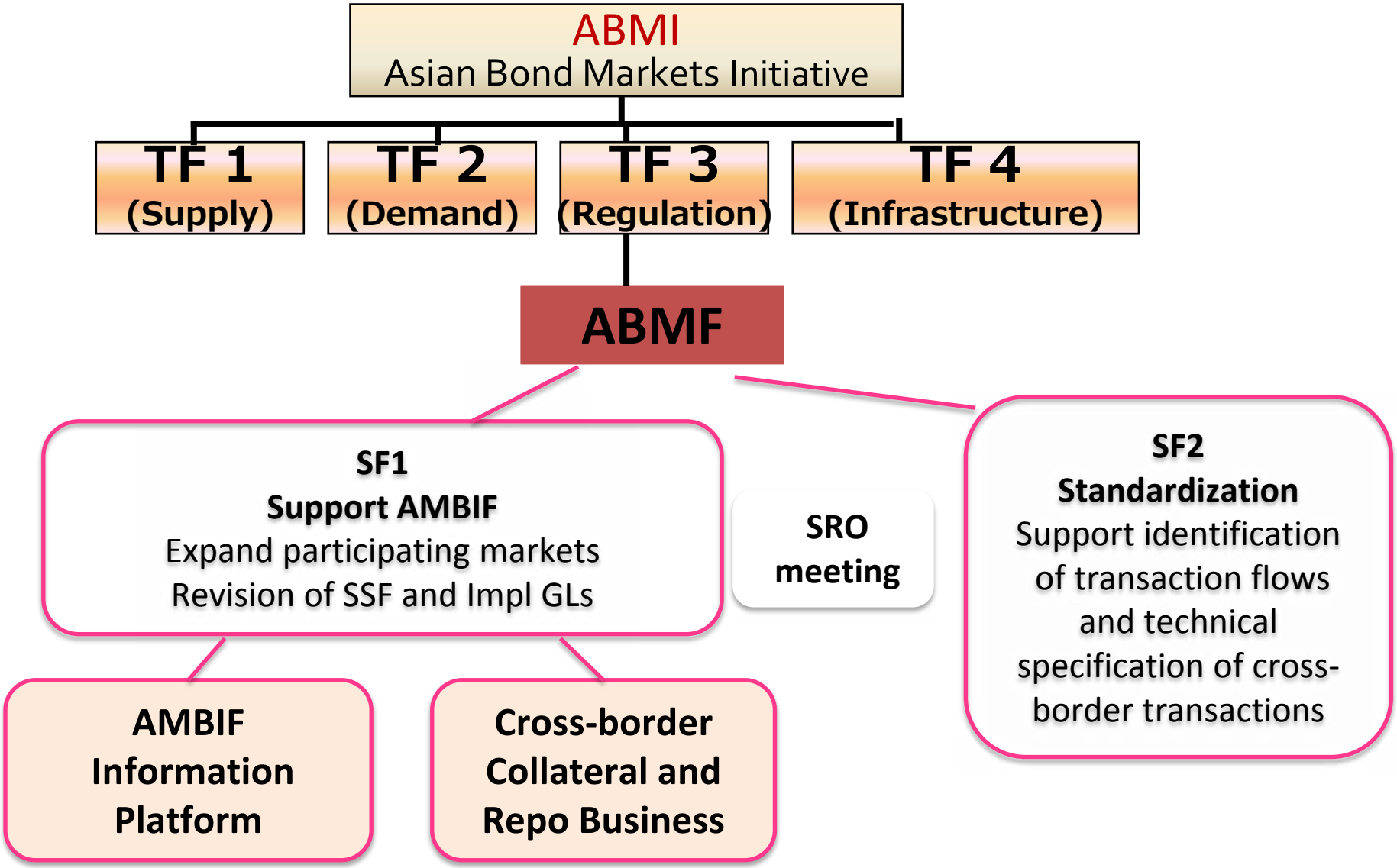
ADB

- The first pilot AMBIF bond was issued on 29 September in Thailand.
  - THB 3 billion, 3 years
  - Listed on Tokyo Probond as well

- Market visit in Hanoi on 21-22 September
  - Workshop to explain AMBIF to key market players and stakeholders.

Update on the new working groups

New WGs


ABMI
Asian Bond Markets Initiative
TF 1
(Supply)
TF 2
(Demand)
TF 3
(Regulation)
TF 4
(Infrastructure)
ABMF
SF1
Support AMBIF
Expand participating markets
Revision of SSF and Impl GLs
SRO
meeting
SF2
Standardization
Support identification of transaction flows and technical specification of cross-border transactions
AMBIF
Information
Platform
Cross-border
Collateral and
Repo Business

WG on collateral business and repo in ASEAN+3

ADB

❖ Objective

- The Working Group on Cross-Border Collateral and Repo shall:
- Identify the current status of cross-border collateral, repo, and securities lending business in ASEAN+3. The result will be reported to the ASEAN+3 Bond Market Forum (ABMF).
- Identify impediments for cross-border collateral, repo, and securities lending business, which has not been identified in the existing studies.
- Find out potential business cases if cross-border collateral, repo, and securities lending are made possible or easier. This may need to consider impact of recent regulatory changes such as OTC derivatives and liquidity management.
- Recommend a preferable approach to enable cross-border collateral and repo in the region more easily, and provide necessary regulatory consideration to ABMF in relation with bond market developments and intra-regional cross-border transactions.

WG – CBCR Workplan

ADB

Up to October

- ADB Secretariat will collect information of existing study to avoid overlap. The WG members are asked to share information that contributes to WG discussion (by the end of August).
- The Secretariat will prepare a document to see what information is available and not based on the existing studies. To start, we may use the study by the SRO Group, which was drafted by Mr. Shiina of JSDA. The WG will be asked to validate available information (in September).
- The WG members are asked to submit a "wish list" which indicates the information you would like to have and what cross-border transactions you would like to see. This should not exclude use of USD and US Treasury in the region, but focus needs to be paid to cross- border. The intention is to find out a potential business cases (by the end of August).
- The WG will discuss a preferable approach to identify status quo of cross-border transactions in the region. It is necessary to construct a customized approach to identify issues in different markets (in September).

WG – CBCR Workplan (revised)

ADB

<Step1> Identify the current market status and extracting Business needs

- Survey will be conducted in the following ways;
  - Map existing information to understand the current status.
  - Preliminary questions will be sent to the WG members. If necessary, questions will be sent to wider market participants.
  - Extract potential needs of CBCR from the survey. The needs can be a wish list of market participants.

<Step2> Defining the business flow

- Based on the needs, business flows to realize the needs will be identified.
- The flows may face various regulatory barriers. These will be identified in detail.
- We will consider CCBM and PVP as models of trading.

<Step3> Definition of the task to realize the flows and mitigating barriers

- Based on the flow, how to tackle the barriers will be considered. Some barriers may be technical and procedural while the other may be linked with policies.
- Merits and demerits of maintaining the barriers will be examined.

WG on AMBIF Information Platform

ADB

- Objective

  1-1. Discuss how information technology can support AMBIF bond issuance and trading

  1-2. Discuss possible technological solution to support AMBIF bond issuance and trading

  1-3. Identify necessary technical specifications to be considered in case a common information platform is considered, and/or in case the exchange of information between individual information platforms is considered

  1-4. Propose steps to be considered in case a common information platform and or the connection of individual information platforms shall be implemented in the future

WG on AMBIF IP Workplan

ADB

Up to October

- ADB Secretariat will circulate the presentations related to bond price information and information platform provided at the previous ABMF meetings. ADB Secretariat would like to ask the WG members to share information regarding an information platform in their respective markets or under their purview (in August).

- ADB Secretariat will organize calls for members to learn about the existing platforms and proposed platform in the region (in August and September).

- The WG members are requested to identify business needs or specifications for the creation of an information platform. Please provide what functions and information should be provided in the information platform (by the end of August).

- Once we have the information on the existing information platforms, we will map out to what extent such information is already provided through existing platforms (by the end of September).

- Hopefully, these exercises would identify what can be done on the basis of existing functions and features and what needs to be done to make a desirable change in the markets (by the end of September).

WG on AMBIF IP Workplan (revised)

ADB

- Two proposal: by KOSCOM on establishing a single platform; and by BPAM on creating network among bond pricing information providers.
- The two proposals are not competing, but show the sequence of our discussion. First, the WG will seek MOUs among the information providers to set conditions to exchange information; then, move towards more single platform solution when ready.
- ADB will ask BPAM to share their experience on MOUs.
- Through the creation of MOUs, Business needs and scope of information to be exchanged will be identified.

Update on the ASEAN+3 Bond Market Guide

BMG 2015 – Status for Reference

Task List	Bond Market Guides 2015													
	BR	PRC	HK	ID	JP	KH	KR	LA	MM	MY	PH	SG	TH	VN
Update/Review of Original BMG 2012		✓	✓	✓	✓			✓		✓	✓	✓	✓	✓
New Material from Members		✓	✓	✓	✓			✓		✓	✓	✓	✓	✓
New Structure applied			✓		✓	✓	✓		✓	✓	✓	✓	✓	
Compilation by ADB Secretariat			✓		✓	✓	✓		✓	✓	☐	✓	✓	
Review by Members			☐		✓				✓	✓		✓	✓	
Revisions by ADB Secretariat					✓					✓		☐	✓	
Edit of Input File										☐			✓	
Review by Authors														
Layout of Input File														
Review by Editor and Authors														
Revision of Layout Version														
Proofreading														
Review by Editor and Authors														
Revision of Layout Version														
Page Proof Check														
Review by Editor and Authors														
Revision of Layout Version														
Compliance Check by ADB DER														
Review by Editor and Authors														
Revision of Layout Version														
Uploaded in ADB, ABO and ABMF														

***Notes: As of 16 October 2015**. Ticks indicate complete/nearly complete work stages; ☐ = in progress.*

Optimizing the Usage of Standards in Data Collection and Analysis

ABMF meeting

Singapore

16th October 2015

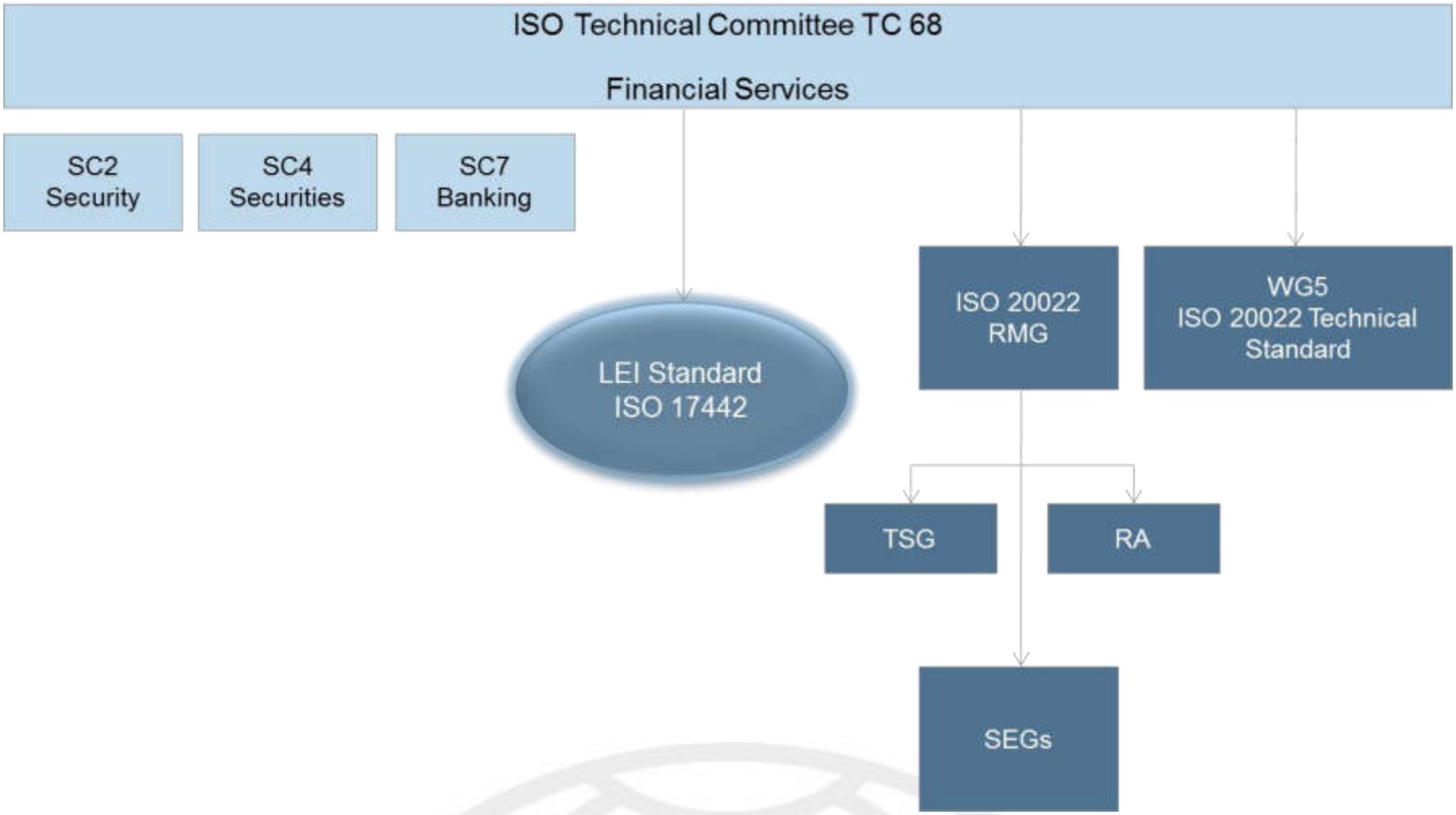
What is ISO?

- International Organization for Standardization, located in Geneva, Switzerland, founded in 1947
- Develops international standards through worldwide network of national standards bodies
- Work performed within Technical Committees (TCs), their subcommittees (SCs) and working groups (WGs)
- 165* National Standards Bodies are represented within the ISO Framework; G20 representatives have ISO affiliation with their national standards bodies
- ISO develops standards in many areas including technology, product safety, energy management. 20493* published standards in the ISO collection.
- The ISO standards development process is carried out through experts participating in committees and working groups.
- Agreement/approval of a standard reflects a double layer of consensus – first within the industry (market players) and then across ISO member countries.
- Formal governance/rules established in "ISO Directives"
  - www.iso.org/directives

* * ISO in figures as of 31st December 2014

International Organization for Standardization

ISO Standards for Financial Services



Usage of standards for financial transactions

- In financial services, standards exist to support our business processes, to make business more efficient, predictable, and as ISO states, sustainable.

- Stakeholders in the industry develop and use standards to mitigate business and operational risks, to improve efficiency and drive out cost, since standards reduce transaction errors, failures, and fraud. Standards lessen or eliminate the financial consequences of NOT having secure, complete and clear information needed to complete financial transactions.

- It has become important and evident that to be effective, standards should cover the end-to-end players in the processing chains within the financial services industry. To that end, financial standards groups aim to work together on a regular and coordinated basis.

- In the Securities industry, standards are used by investment managers, custodians, market infrastructures, such as securities depositories and central counterparties, to communicate details of transactions (trade execution, settlement, reconciliation, investment funds, corporate actions, as examples)

Security standards to support financial transactions

General areas - PIN, Biometrics, Key management, PKI, Encryption, Cryptography

Published Standards

- ISO 9564 Personal Identification Number (PIN) management and security
- ISO 11568 Key management (retail)
- ISO 13491 Secure cryptographic devices (retail)
- ISO 13492 Key management related data element -- Application and usage of ISO 8583 data elements 53 and 96
- ISO 15782 Certificate management for financial services (PKI)
- ISO 16609 Requirements for message authentication using symmetric techniques
- ISO 20038 Banking and related financial – Key Wrap
- ISO 21188 Public key infrastructure management for financial services - Practices and policy framework

Technical Reports

- ISO 13569 Information security guidelines
- ISO 14742 Recommendations on cryptographic algorithms and their use
- ISO 19092 Biometrics
- ISO 19038 Banking and related financial services -- Triple Data Encryption Algorithm (DEA) modes of operation

Identifiers and classification standards

- There often is a need to standardize on specific data elements, so usage of codes and identifiers, like the ISO 17442 LEI standard developed for legal entity identification, are seen in financial services standards.

For example:

- ISO 6166, International Securities Identification Numbering System (ISIN)
- ISO 10383 Codes for exchanges and market identification (MIC)
- ISO 10962 Classification of Financial Instruments (CFI code)
- ISO 18774 Financial Instrument Short Name (FISN) ISO 13616 International bank account number (IBAN)
- ISO 18245 Retail financial services – Merchant category codes
- ISO 9372 Business Identification Code (BIC)
- ISO 4217 Codes for the representation of currencies and funds
- ISO 17442 Financial Services – Legal Entity Identifier (LEI)
- ISO 20275 Entity Legal Forms (ELF) – in development

Modelling and messaging standards

Another large component of financial services standards is the financial messaging that supports exchanges or transport of data. The clarity of the meaning of the data and elements in these exchanges is important, so agreement on the definitions and meaning of this data or pieces of information is required.

For example:

- ISO 8583 Financial transaction card originated messages
- ISO 9992 Messages between the integrated circuit card and the card accepting device
- ISO 11649 Structured creditor reference to remittance information
- ISO 15022 Data Field Dictionary

- ISO 20022 Universal financial industry message scheme

  ISO 20022 consists of the following parts:
  - Part 1: Metamodel
  - Part 2: UML profile
  - Part 3: Modelling
  - Part 4: XML Schema generation
  - Part 5: Reverse engineering
  - Part 6: Message transport characteristics
  - Part 7: Registration
  - Part 8: ASN.1 generation

Leveraging interoperability of standards

- Bring standards together in a way that will make them interoperable and reusable by users of financial data

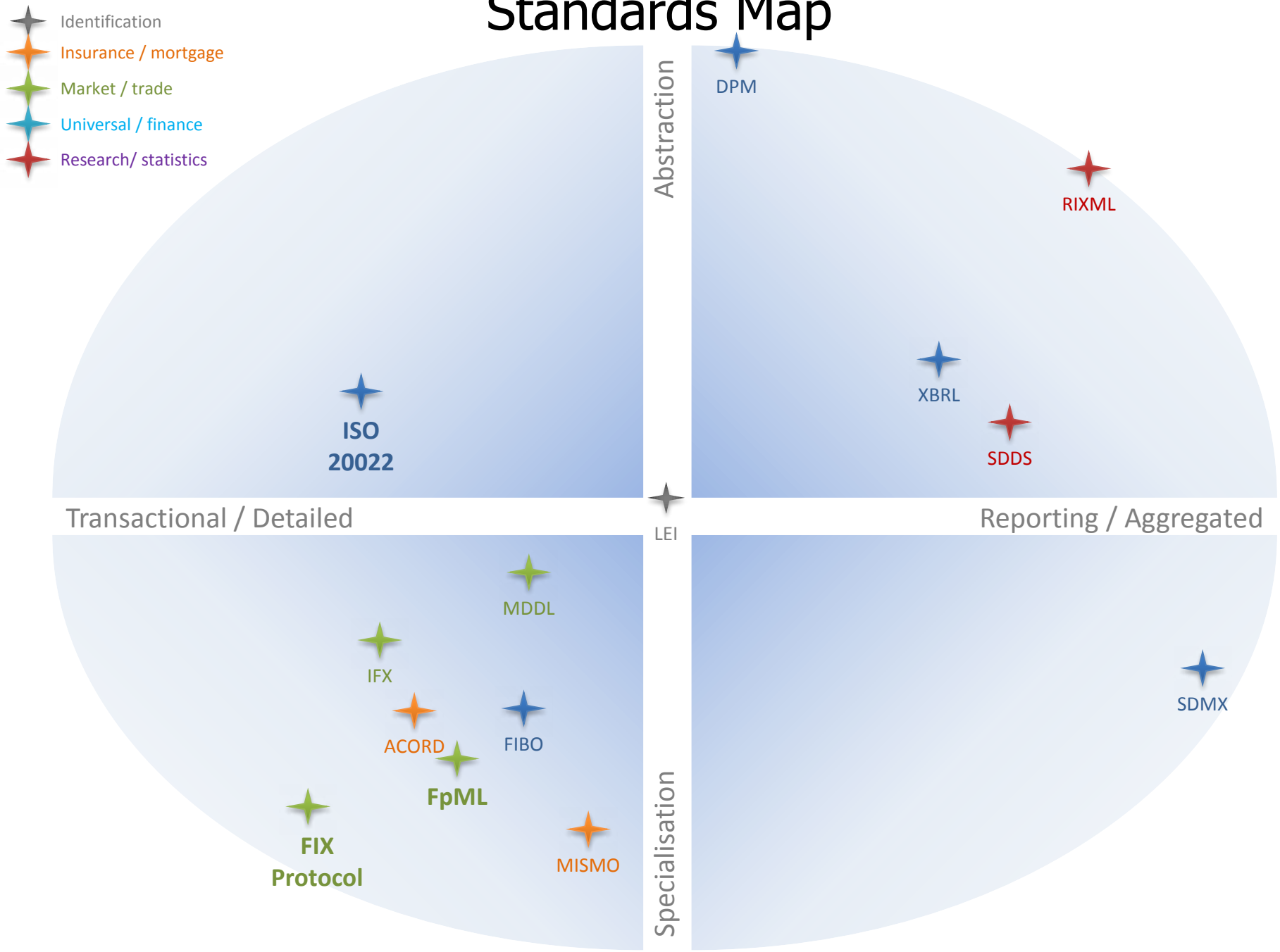
- There is flexibility in the interoperability of standards, with combining standards and the information/data flow to match the specific requirements of information/data collection, reporting and analysis

- The ability to capture transactions in a standard way is a necessary and valuable foundation for all users of financial data, including economic and regulatory analysis

- And the following challenges with respect to data standards and meanings the exist for all users

  Data collection (i.e.: consistency of application, cost (volume, completeness), varied data collection standards),
  Common use of data elements (i.e. comparability, consistency of reporting and review, common definition and understanding), and
  Efficiency (i.e.: collaborative oversight, duplication of infrastructure, single data collection (multi-use)).

Standards Map



Levels of data collection, reporting and analysis

Supervision / regulation

Table 2A. Bilateral credit exposures to top 50 counterparties	
Indicative timing:	End 2012
Dimensions:	• Instrument (8)
Crossings of data[10]:	None
Frequency:	Weekly OR Monthly
Reporting lag:	5 days
Details of Breakdowns:	Instrument: Lending incl. contingent credit lines (excl. short term Money Market instruments); Securities lending, Repo, Money Market placements including interbank funds, Marketable debt and equity securities, Credit hedges, Derivatives exposures, Unsecured settlement/clearing lines
Metrics:	Principal amounts, gross marked to market (MtM)[10] exposures, collateral, net MtM[10] exposures, potential future exposure

International — G-SIB I-I Form — SDMX

Debt instruments	Equity instruments	Derivatives	Off balance sheet items		
			Loan commit-ments	Financial guarantees	Other commit-ments
070	080	090	100	110	120

Regional (Europe) — COREP / LE Form — XBRL / DPM

Debt instruments	Equity instruments	Derivatives	Off balance sheet items		
			Loan commit-ments	~~Financial guarantees~~	Other commit-ments
070	080	090	100	110	120

National (UK) — BoE LE Form * — XBRL / DPM

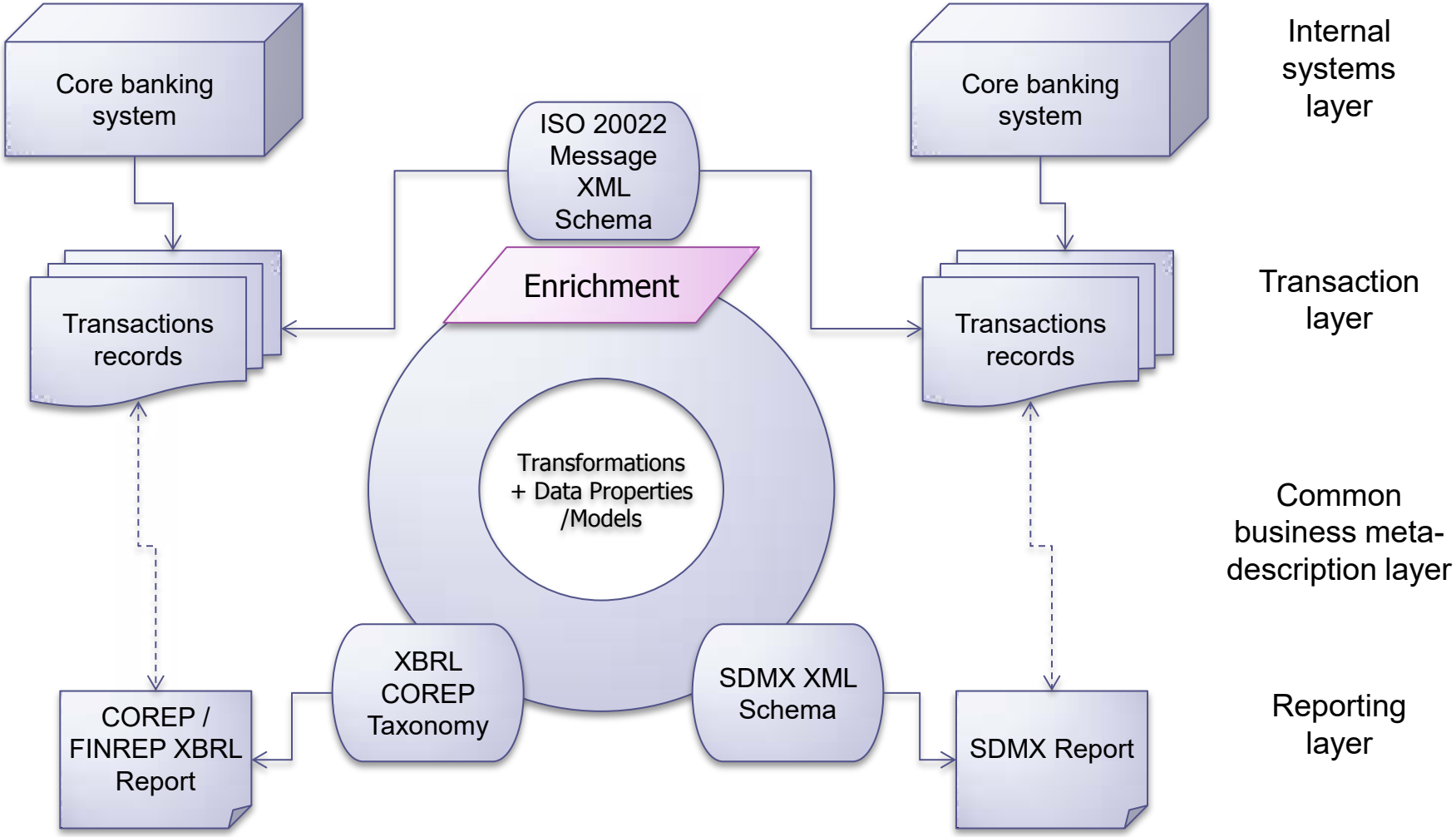
Operations

Exposure	Counterparty	Currency	Value
Exposure	HSBC	GBP	2341234
Exposure	HSBC	GBP	4576456
Exposure	RBS	GBP	6722356
Exposure	RBS	GBP	2987364
Exposure	RBS	GBP	128379432
Exposure	HSBC	GBP	2453245

Entity — Barclays LE * — Proprietary

Transaction / Result — Proprietary — ISO

Achieving data interoperability through standards – example based on EU Common Reporting (COREP), Financial Reporting (FINREP) and Statistical Data Metadata Exchange (SDMX)



Important Considerations

- There is an opportunity to bridge financial industry and regulatory reporting by leveraging the standard codes, identifiers, terms and definitions, and financial messaging, where applicable, for required reporting between reporting entities and regulators. The leveraging of standards can offer this convergence.

- The Legal Entity Identifier (LEI) is an important aggregation point, as a data point, and as an important example of an effective public/private initiative.

- The solution should be founded upon and supported by an established governance model
  - This is critical in maintaining necessary alignment of terms, definitions and financial transaction messages
  - Standardized, semantic model (meaning of data items) should become the focus of interoperability activities and a common repository purpose
  - An established standard that includes a Repository and a Model, such as ISO 20022, can serve as an umbrella for financial transactional standards to maintain this alignment

Implementation of ISO 20022
Lessons to be learnt from the other region

20th ABMF at Sibos in Singapore

16 October 2015 by Mehdi Manaa

EUROPEAN CENTRAL BANK

EUROSYSTEM

ECB-RESTRICTED

Summary

Introduction

- Why T2S
- Initial approach

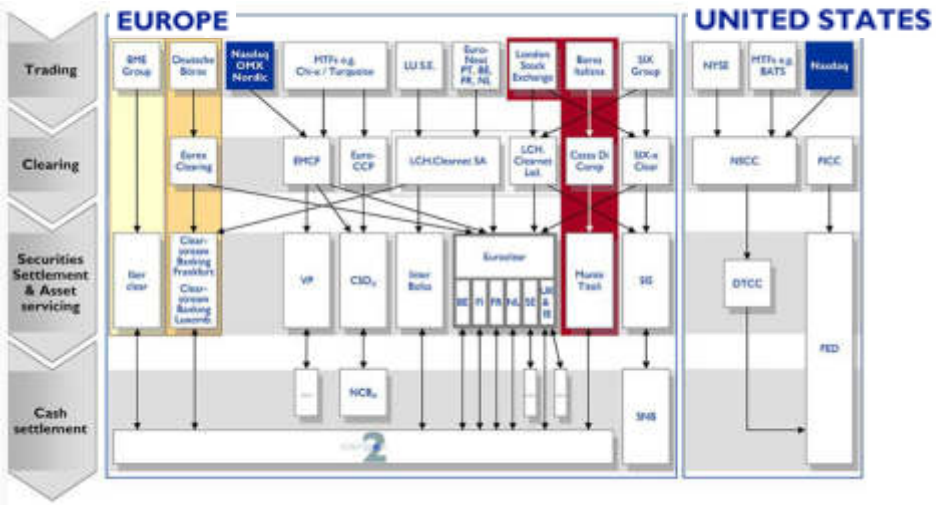
Messages

- Usage of ISO 20022 messages
- Other related message features

Further standardisation

- Monitoring of the standardization process
- Promotion of standardization in different areas
- Future T2S Market Practices

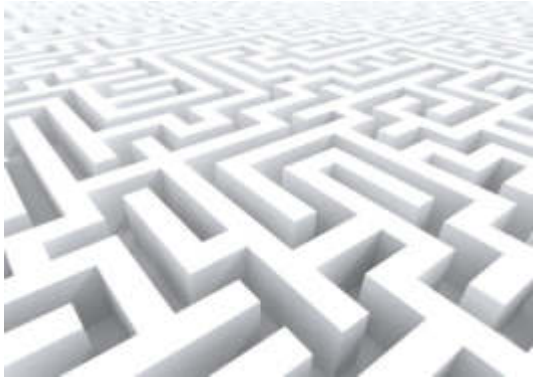
T2S – Implementation of ISO 20022
Why T2S



Very high cost of cross-border settlement – Today, settlement across European countries is extremely complex, involving at least two CSDs and very often also one or several custodian banks. In addition, settlement is de facto a national monopoly, with little or no competition among European providers. For these reasons, cross-border settlement fees are today many times higher than domestic fees, and much higher than in the United States, which already has a highly centralized clearing and settlement infrastructure.

Complex settlement procedures and high level of risk – The high cost of cross-border settlement is also caused by *the lack of harmonization on a legal, technical and fiscal level*. Such non-homogeneous market practices make settlement complicated and entail a high level of risk.

T2S – Implementation of ISO 20022
Initial approach



"Lean approach"

The Eurosystem has avoided the inclusion of national specificities into the system's operational blueprint and kept T2S "lean", i.e. limited to core settlement processes and excluding national specificities.

Participation in T2S will increase the incentives to remove specificities and reach wider harmonization in order to be more competitive in the increasingly integrated EU financial market.

EUROPEAN CENTRAL BANK
EUROSYSTEM

Summary

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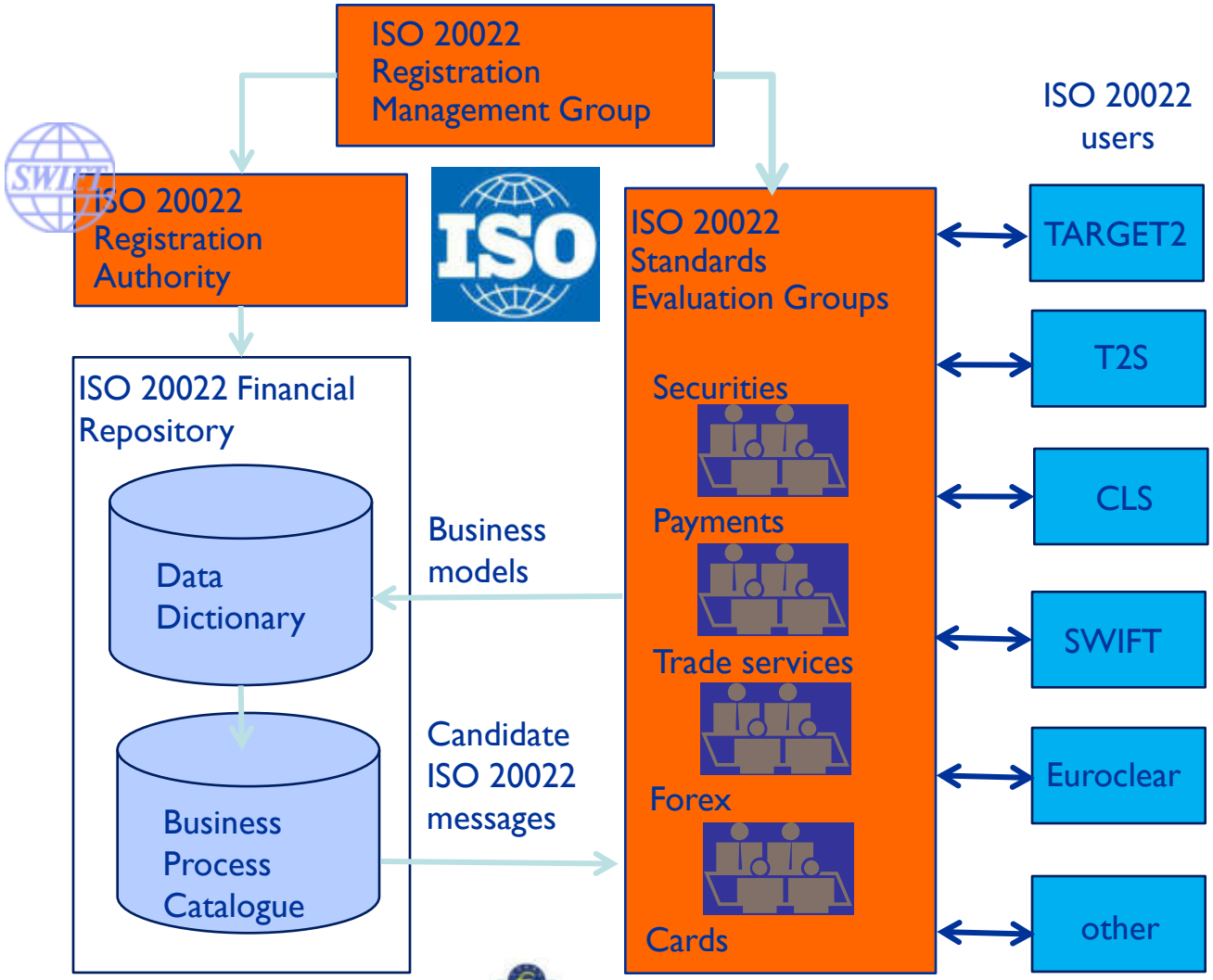
T2S – Implementation of ISO 20022

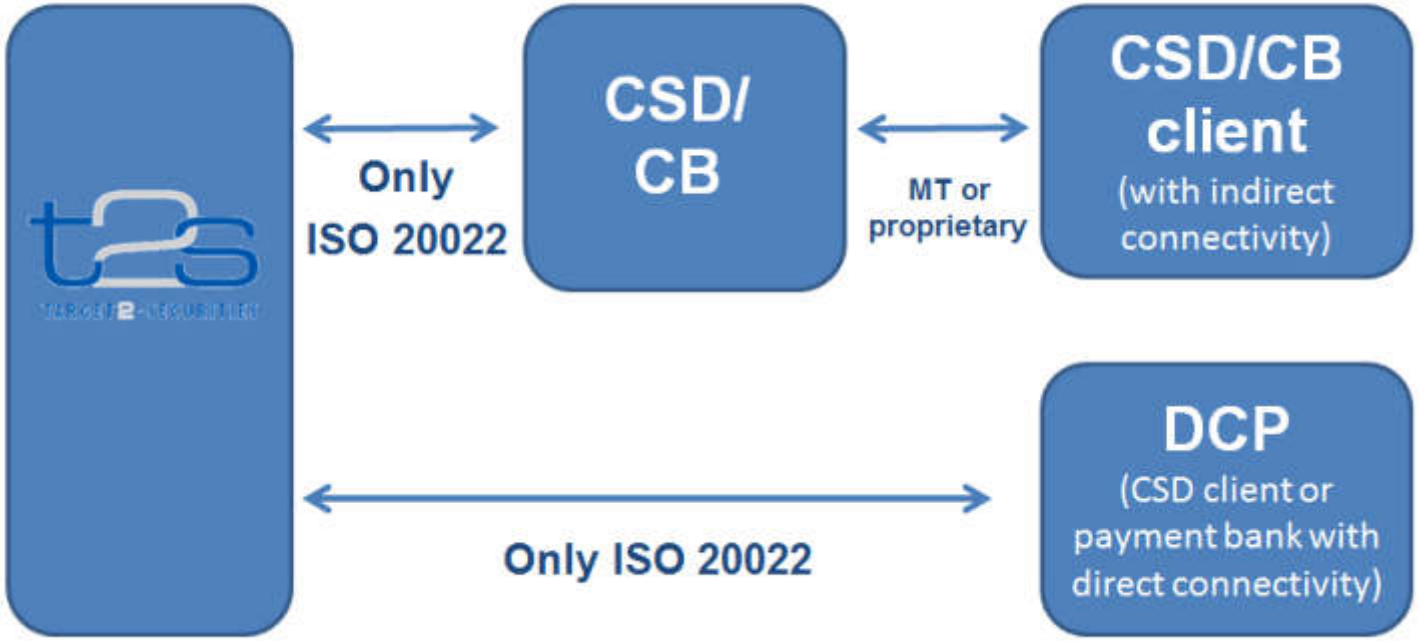
Usage of ISO 20022 messages

Universal financial industry message scheme



T2S – Implementation of ISO 20022

Usage of ISO 20022 messages



T2S is a major contributor of the ISO 20022 standards: it has 130 XML messages – including existing ISO 20022 messages: messages developed at the initiation of T2S which can be reused by the global community for other purposes, and messages for use in T2S only – all of which have T2S specific usage guidelines.

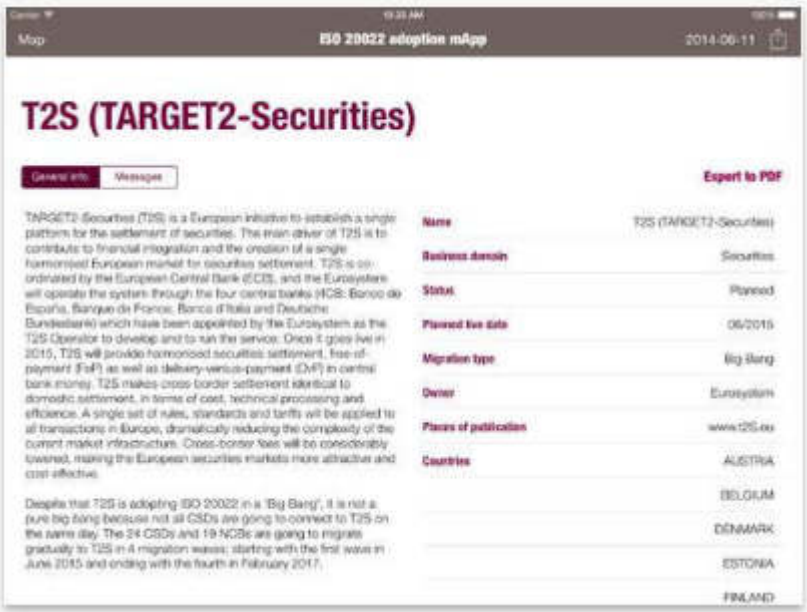
T2S – Implementation of ISO 20022

Usage of ISO 20022 messages

Adoption mApp

Despite that T2S is adopting ISO 20022 in a 'Big Bang', it is not a pure big bang because not all CSDs are going to connect to T2S on the same day.

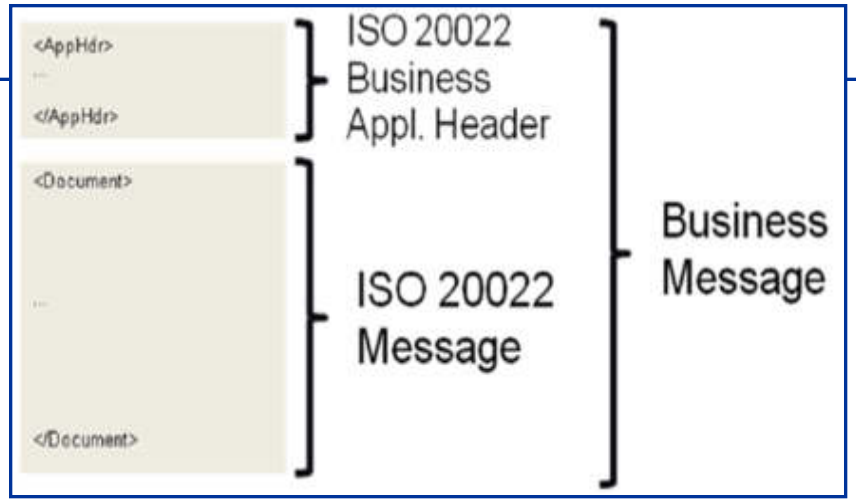
The 24 CSDs and 18 NCBs are going to migrate gradually to T2S and at the same time to ISO 20022 in 4 migration waves; starting with the first wave in June 2015 and ending with the fourth in February 2017.



EUROPEAN CENTRAL BANK
EUROSYSTEM

T2S – Implementation of ISO 20022
Other related message features

- T2s does not support the "old" ISO 15022, but operates for a non-specified time in *coexistence mode*.
- This means that T2S restricts its ISO 20022 messages in accordance to the limitations (e.g. field length, character set, etc.) to which ISO 15022 messages are subject, in order to ensure interoperability between ISO 15022 and ISO 20022 users.
- T2S messages include a Business Application Header (BAH):



The BAH is an ISO 20022 message that can be combined with any other ISO 20022 message to form a business message.
The BAH includes information that can be efficiently used (e.g. for document identification or routing) without even opening the payload of the message itself.

T2S – Implementation of ISO 20022

Other related message features

ISO 20022 messages are customised, in order to meet the specificity of the user requirements of T2S.

For example:

- The list of possible code values is restricted to the values allowed in T2S
- Optional message elements are made mandatory if their usage in T2S is compulsory
- The allowed characters are limited to those used in T2S

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T2S – Further standardisation
Summary

Introduction

- Why T2S
- Initial approach

Messages

- Usage of ISO 20022 messages
- Other related message features

Further standardisation

- Monitoring of the standardization process
- Promotion of standardization in different areas
- Future T2S Market Practices

T2S – Further standardisation
Monitoring the standardisation process

ECB-PUBLIC

SHAPING A NEW EUROPEAN MODEL FOR SECURITIES SETTLEMENT

Jean-Michel Godeffroy, Chairman of the T2S Board

Joint ECB-European Commission conference
"Post-trade harmonisation and financial integration in Europe"
Frankfurt am Main, 19 March 2013

J.M.Godeffroy: "Modest and tough approach"

"*Modest* because we focus on those activities that are necessary to be able to reap the full benefits of T2S right from its launch.

Tough, because we want concrete results."

The Advisory Group has defined a set of activities relating to areas where harmonization is important for the efficiency of T2S. Some of these activities are essential for the new platform to function efficiently at cross-CSD level and are marked as "priority one" (e.g. adoption of a common list of T2S messages and matching fields).
The remaining activities are important harmonization activities which are not strictly necessary for T2S, but will be beneficial in terms of competition and efficiency for the environment surrounding T2S (e.g. market access issues).

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T2S – Further standardisation
Monitoring the standardisation process

	Activities – priority 1		Definition	Monitor	Compliance
1	T2S Messages	T2S ISO 20022 messages	G	G	G
2		T2S mandatory matching fields	G	G	G
3		Interaction for registration	G	G	G
4		Interaction for tax info	G	G	G
5		Interaction for CSD ancillary services	G	G	G
6	Schedule for the settlement day		G	G	G
7	T2S Corporate actions standards		G	G	R
8	Legal harmonisation	Settlement finality I (moment of entry)	R	X	X
9		Settlement finality II (irrevocability of transfer order)	G	G	G
10		Settlement finality III (irrevocability of transfers)	G	G	G
11		Outsourcing IT services	R	X	X
12	Settlement discipline regime		R	X	X
13	Settlement cycles		Y	X	X
14	CSD Account structures	Availability of Omnibus Accounts	G	G	B
15		Restrictions on Omnibus Accounts	G	G	G
16	T2S Accounts Numbering	Securities accounts numbering	G	G	G
17		Dedicated cash accounts numbering	G	G	G
	Activities – priority 2		**Definition**	**Monitor**	**Compliance**
18	Legal harmonisation	Location of Securities Account/Conflicts of Law	R	X	X
19	Corporate actions market standards	CA market (CAJWG) standards	G	G	Y
20	Place of issuance		R	X	X
21	Tax procedures	Withholding tax procedures	G	R	X
22	Shareholder transparency - registration		R	X	X
23	Market access		R	X	X
24	Securities amount data		G	G	G

Dashboard of the T2S harmonisation activities as of 13/02/2014, currently under review

The progress of each activity is measured in terms of:

- "Definition"
- "Monitoring"
- "Compliance"

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T2S – Further standardisation

Promotion of standardization in different areas

The standardization process triggered by T2S goes beyond pure exchange of data and includes the harmonization of market practices.

- Data to be used for Matching fields:

T2S STANDARD:
T2S actors are required to use mandatory T2S matching fields as described in UDFS v. 1.2.1, available on the T2S website.[24]

- But, as another example, also Securities account numbers:

T2S STANDARD:
In securities account numbering, CSDs must use a four-digit BIC to identify parties of CSDs plus 31 digits of free text.

T2S – Further standardisation

Future T2S Market Practices

A big market infrastructure is like a big ship with a diverse community on board. Due to its inertia, it needs to plan way in advance its route if it wants to avoid troubles, as it cannot make sharp turns.

Just to give an idea: the TARGET2 change and release management follows an overlapping "yearly cycle" of 21 months!

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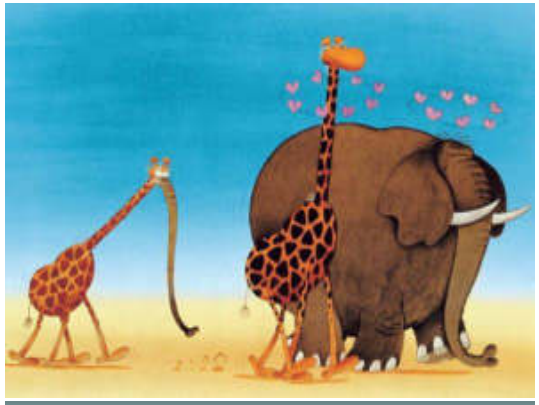
T2S – Further standardisation

Future T2S Market Practices

Example: Current discussion at XMAP on Optional matching fields also in order to reduce the risk of cross-matching

Optional matching fields: non-mandatory matching field whereby a filled-in field may match with a field with no value (unlike Additional matching fields), but when both Parties provide a value, the values have to match.



Example of cross-matching

NON MANDATORY MATCHING FIELDS PER TRANSACTION TYPE

TABLE 112 – OPTIONAL MATCHING FIELDS AND EXAMPLE

e.g. Matching of Optional Fields:

DVP/DWP	FOP	Settlement Instruction 1		Settlement Instruction 2
Common Trade Reference		25689	MATCH	25689
Client of delivering CSD participant		BANKCCLLMAR	NO MATCH	BARCGB210ZS
Client of receiving CSD participant		BSCHESMMXXX	MATCH	(blank)
Securities account of the delivering party		12514	MATCH	12514
Securities account of the receiving party		56541	NO MATCH	89852

What about making any of the optional matching fields mandatory?

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Thank you for your attention!

Any questions?

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ASEAN+3 Bond Market Forum and 7th CSIF Meeting

Connecting CSD and RTGS systems (TARGET, TARGET2 and T2S)

Jochen Metzger, Deutsche Bundesbank

TARGET2 / TARGET2-Securities (T2S) History

Pre euro era

- Separate RTGS system in each European country for the settlement of transactions in their national currencies

TARGET era

1999 – 2007

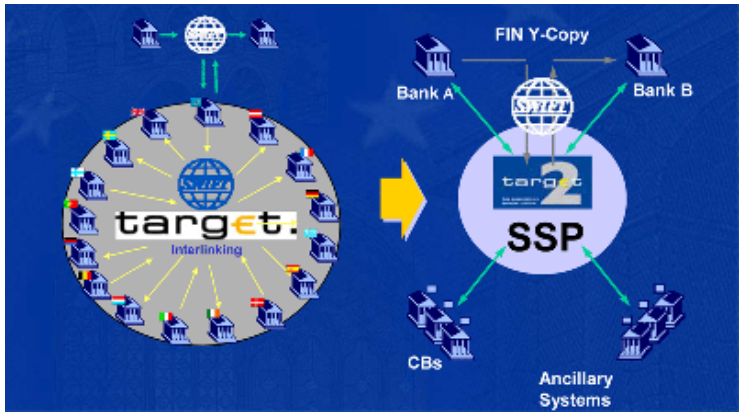
- Connection of the separate RTGS systems in the course of introducing TARGET
- TARGET was based on interfaces between the respective national systems (in addition to the ECB payment mechanism) and that way formed a decentralised system with several differing technical platforms
- Main achievement of TARGET was enabling the processing of payments across the euro area

TARGET2 era

2007 –

- Operation of one integrated technical platform (Single Shared Platform – SSP)
- Nonetheless the participating central banks retain their relationships to the counterparties in their respective countries (i.e. decentralised system based on a single technical platform)
- Advantages compared to TARGET:
  - High level of standardisation
  - Common range of services offered
  - Standardised prices for domestic and cross-border payments
  - Main benefits: liquidity saving features and liquidity management options

  ⇨ Level playing field for financial market players



Visualisation of TARGET to TARGET2 evolution

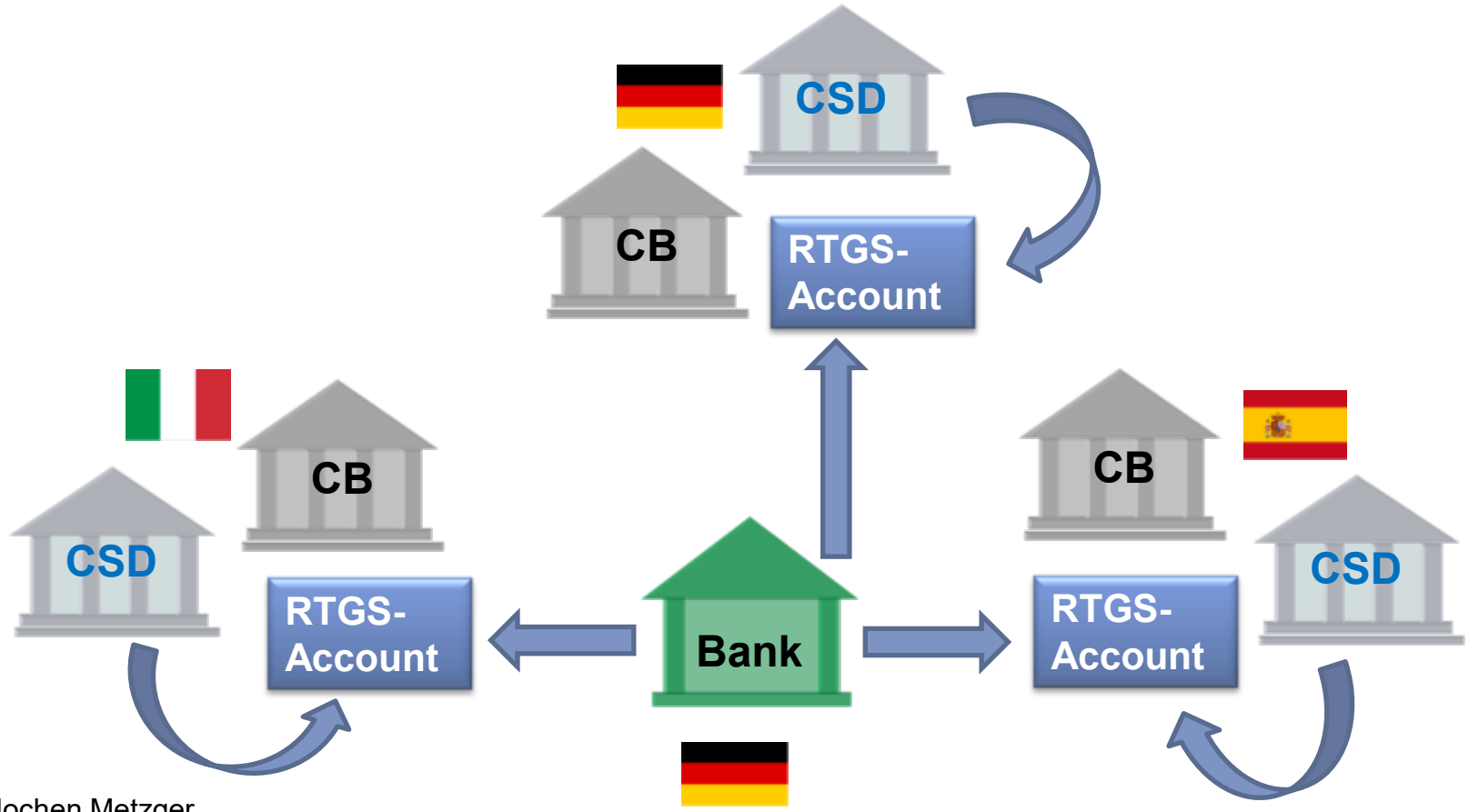
T2S era

2015 –

- Provision of an integrated settlement service for DvP transactions in euro (and foreign currencies)

TARGET era (1999 – 2007)
Connecting CSDs and RTGS systems

- Banks operating cross-border needed RTGS accounts in various countries
- CSDs accessed only domestic RTGS systems via proprietary interfaces

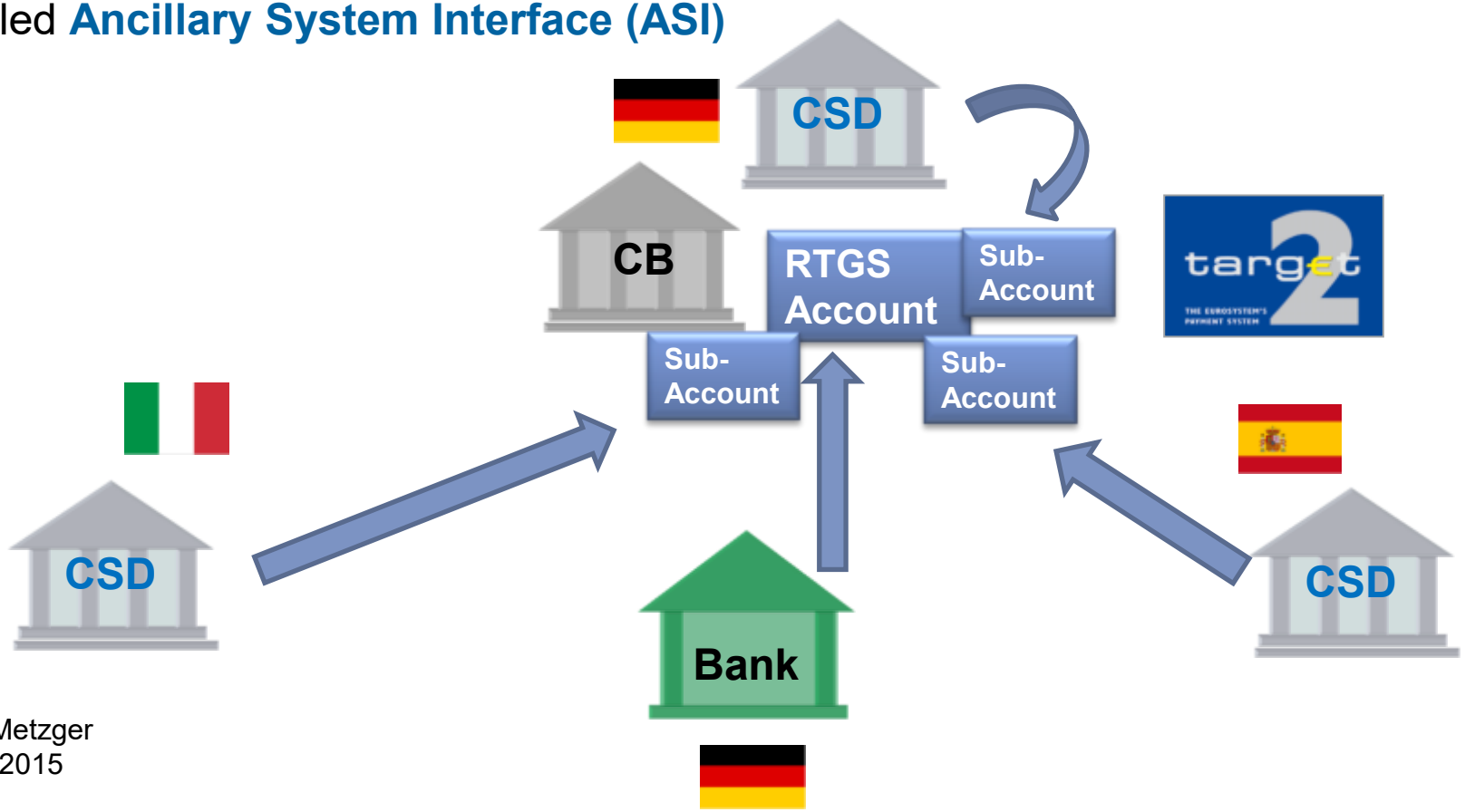


TARGET era (1999 – 2007)
Situation in Germany

- Clearstream Banking Frankfurt (CBF) determined on each working day a net balance of the money settlements for every participant
- The cash settlement of the determined net debit or net credit balances took place via the Bundesbank's service „Electronic Securities Settlement" (EWV) on the participants' current accounts held at Bundesbank
- Also foreign banks, participating in CBF, needed accounts at the Bundesbank
- Besides the cash settlement of net balances EWV executed real-time settlement orders of CBF as well as orders of CCPs in Germany
- Cross-border transactions took place via
  - ICSDs
  - CSD links (if existing)
  - CCBM

TARGET2 era (2007 – today)
Connecting CSDs and RTGS systems

- Strong harmonisation due to single market and single currency
- Banks operating cross-border only need one RTGS account in TARGET2 with their home central bank, but separate “sub-accounts” for each CSD
- CSDs can access all RTGS accounts in TARGET2 via a standardised, so called **Ancillary System Interface (ASI)**



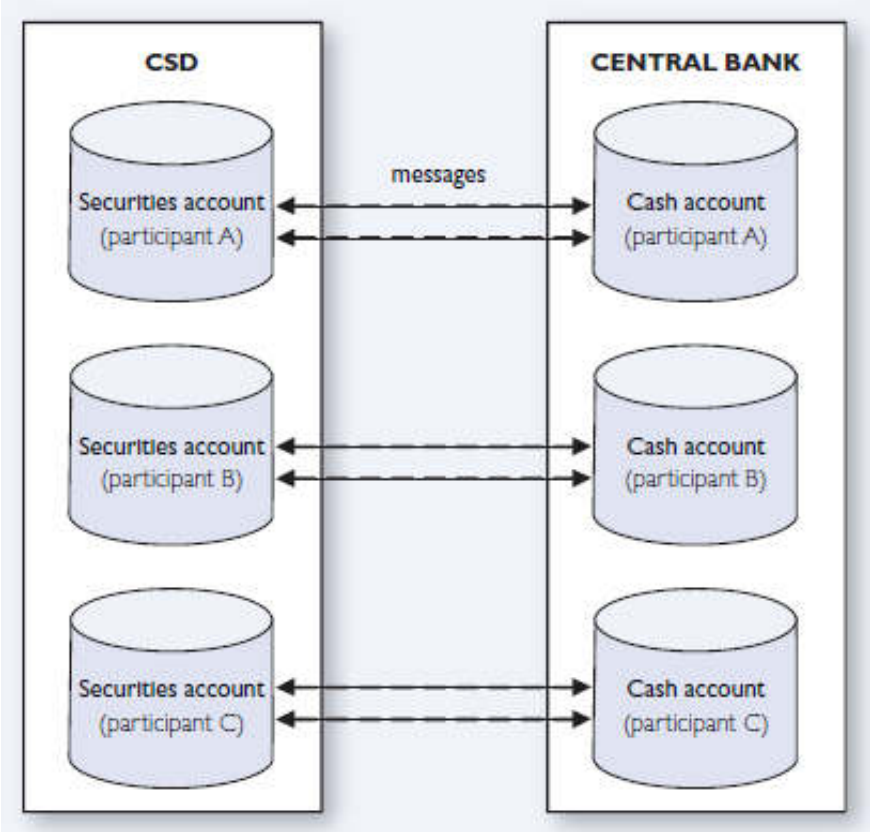
TARGET2 era (2007 – today)
Ancillary System Interface (ASI) in TARGET2

- Broad range of streamlined functionality for CSDs' cash settlement
- Several settlement procedures like real-time or pre-funding with optional mechanisms like guarantee-fund or latest-settlement-time
- Introduction of night-time-settlement (pre-funding only)
- European-wide access to participants in all TARGET2 countries
- Cross-border usage – an RTGS account held with one central bank can be used for settling transactions stemming from ancillary systems from other countries
- Possibility for participants to use only one RTGS account for several CSDs but with separated sub-accounts (e.g. for night-time-settlement)
- Integration with normal payment business
- Highest priority for CSD settlement transactions
- The Ancillary System Interface can also be used for the cash settlement of other systems like CCPs or retail payment systems

TARGET2 era (2007 – today)
Interfaced model

- The settlement (securities and cash leg) does not take place on the same technical platform:
  - The securities leg is settled on the CSDs' platforms
  - The cash leg is settled in TARGET2 via ASI
  - Transaction messages are exchanged using an interface between the central banks' system (TARGET2) and the CSDs' systems
- The CSDs' systems and TARGET2 constantly communicate with each other
- This model does not fully support the needs of ESES markets in Europe

Interfaced model



Source: ECB

TARGET2-Securities era (2015 – today)
Integrated model

- The settlement (securities and cash leg) takes place on one single technical platform:

  One possibility (and current practice in some countries): central bank money accounts are outsourced to the CSDs

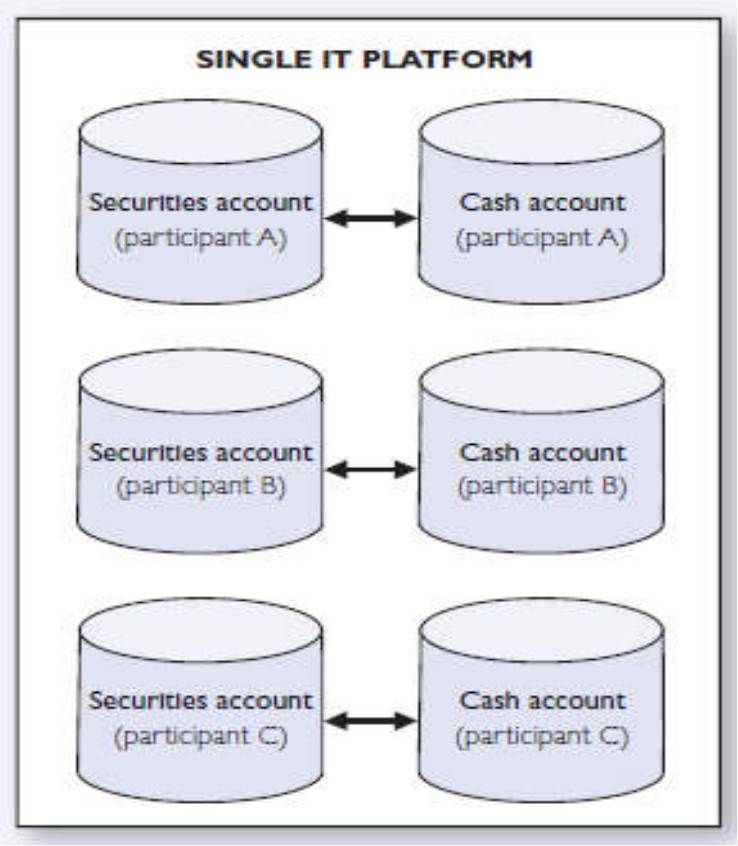
  ⇨ **But:** Outsourcing central bank money is extremely critical

  ⇨ **Thus:** Integration of central bank money and securities on one single platform should ultimately be done only by the Eurosystem itself

  ⇨ **TARGET2-Securities**

- Higher efficiency of real-time settlement
- Pan-European post-trade integration

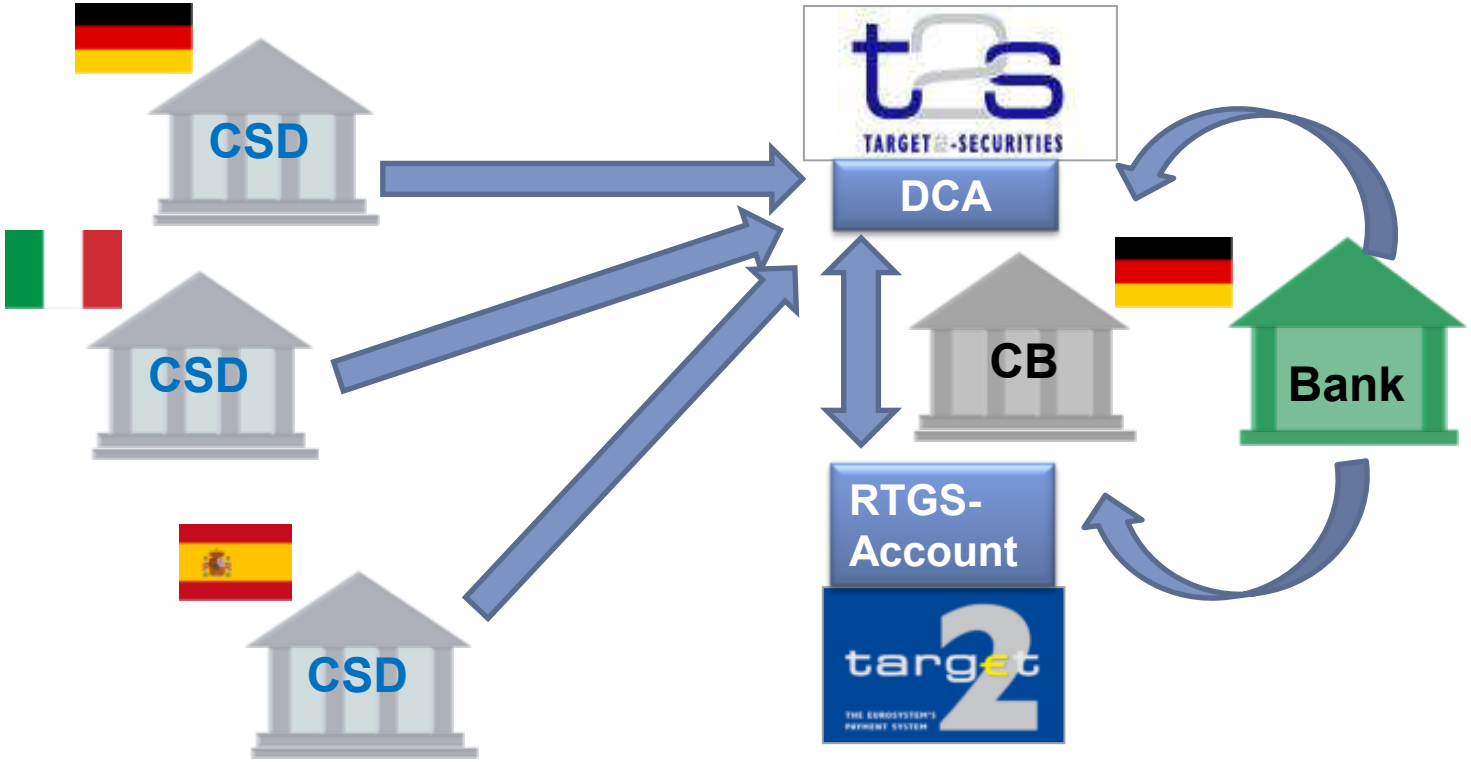
Integrated model



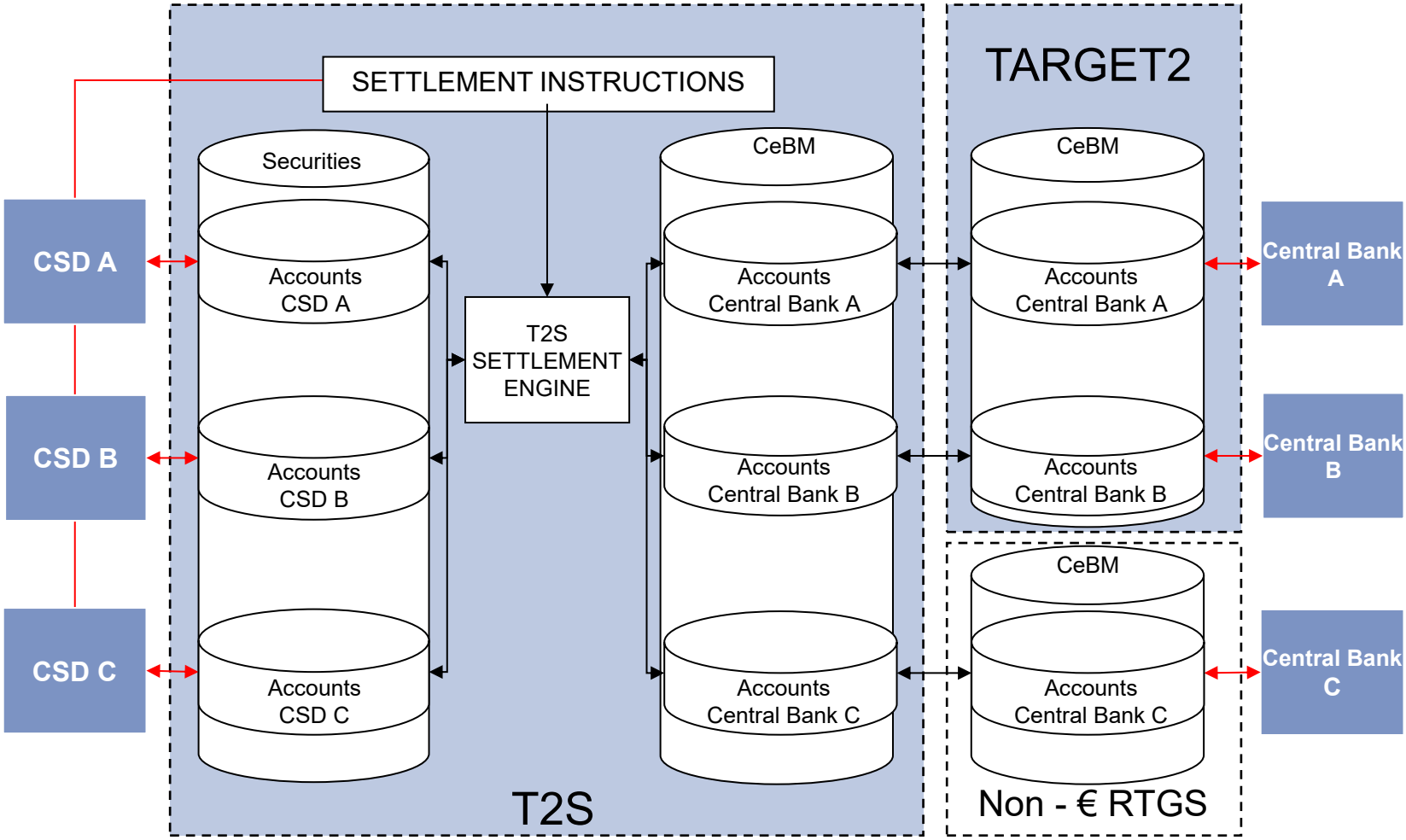
Source: ECB

TARGET2-Securities era (2015 – today)
Connecting CSDs and RTGS systems

- Banks operating cross-border only need one RTGS account in TARGET2 and only one dedicated cash account (DCA) with their home central bank for settlement with all CSDs in T2S (very efficient use of liquidity)
- CSDs can access all DCAs in T2S via standardised interface



Connecting CSDs and RTGS systems
Integrated model T2S



CeBM = central bank money

Vision 2020
The realisation of the magic triangle

since Nov. 2007

Since June 2015

The Eurosystem operates two of the **worlds most important market infrastructures** for payments and securities settlement

Market needs

Legal and regulatory requirements

Cost-efficient processing

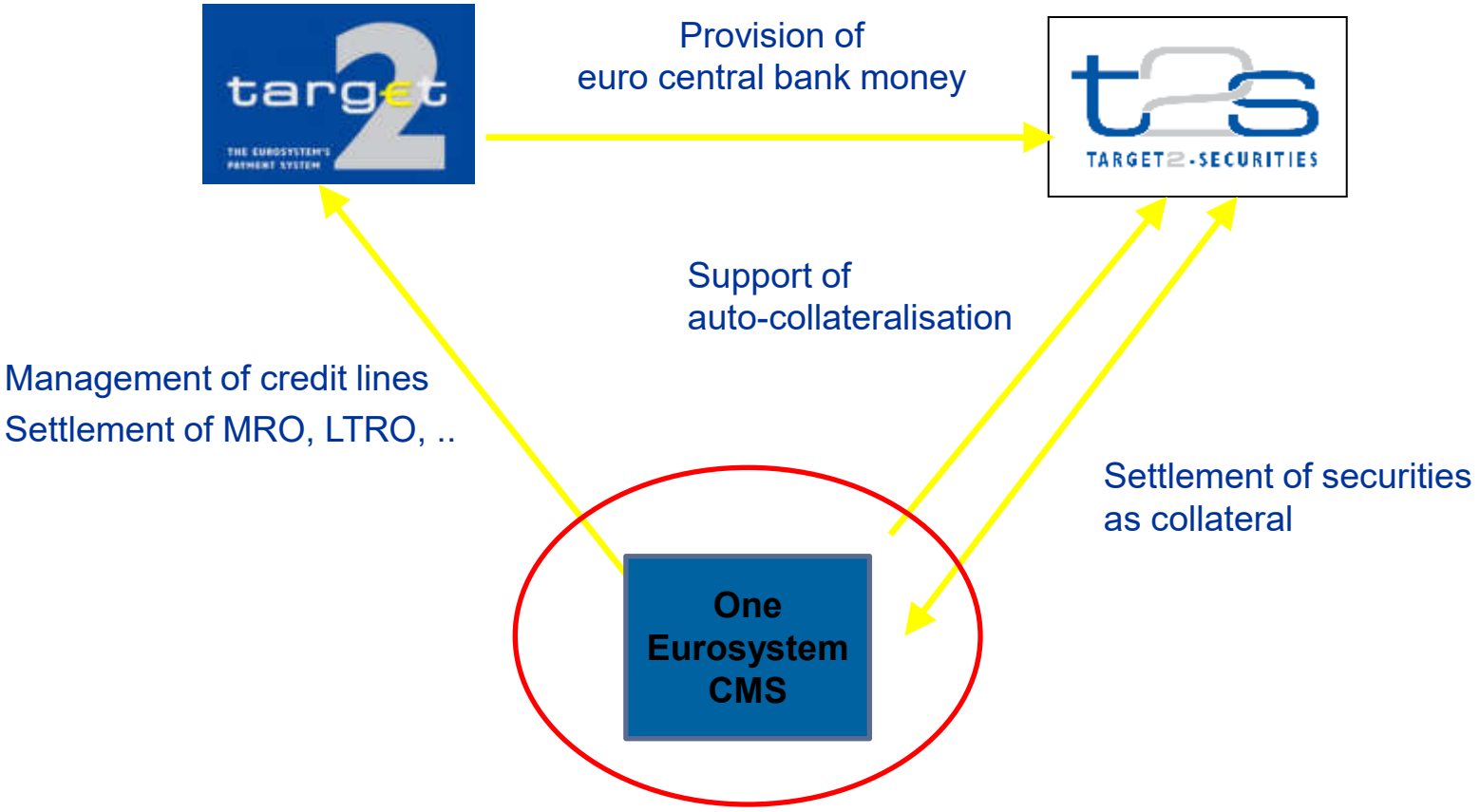
Vision 2020

Strategy to further develop the Eurosystem market infrastructures (including a common Eurosystem collateral management system)

Fostering financial market integration to complete the „Single Market“

Complementary to political driven „capital market union“ in Europe

Vision 2020
One Eurosystem CMS as part of vision 2020



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Thank you very much!

Jochen Metzger

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Wilhelm-Epstein-Straße 14
60431 Frankfurt / Main

GERMANY

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Backup

The role of International Central Securities Depositories (ICSDs) Key milestones and prospects

- **1927** – Morgan Guaranty Trust Company acting as sub-custodian with links to agents in domestic markets enables Americans to invest in foreign securities directly on U.S. exchanges.

- **1968** –The Brussels office of Morgan Guaranty launches the Euroclear System for the orderly settlement of Eurobonds and other cross-border transactions. The use of the system minimised risk as transactions within the system settle versus payment (DvP) in Commercial Bank Money (CoBM) using the respective currency.

- **1970** – Foundation of Clearstream (by the time Cedel) providing settlement and custody of Eurobonds and other cross-border securities services.

- **1993** – Implementation of the new Bridge agreement between Clearstream and Morgan Guaranty/Euroclear

- **1999** – Introduction of the Euro induced certain weakening of ICSD business as settlement of cross-border transactions in one common currency via Target in Central Bank Money (CeBM) further minimised risk of transactions.

- **2007** – Launch of TARGET2 further facilitates cross-border business for CSDs (one standardised interface for all RTGS accounts) thereby weakening the ICSD business.

- **2015** – Launch of T2S provides cash and securities settlement on an integrated platform in CeBM which will probably lead to a further weakening of ICSDs' business.

LEI

GLOBAL
LEGAL
ENTITY
IDENTIFIER
FOUNDATION

Global Legal Entity Identifier Foundation

Visibility. Stability. Integrity.

Gerard Hartsink, GLEIF Chairman
Asian Bond Market Forum, Singapore, 16 October 2015

Content

1. The Legal Entity Identifier (LEI)
2. Why LEI?
3. The role of the Global Legal Entity Identifier Foundation (GLEIF) in the Global LEI System (GLEIS)
4. GLEIF infrastructure development and next steps
5. Options of the LEI for the Asian Bond Market Initiative

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1. The Legal Entity Identifier (LEI)

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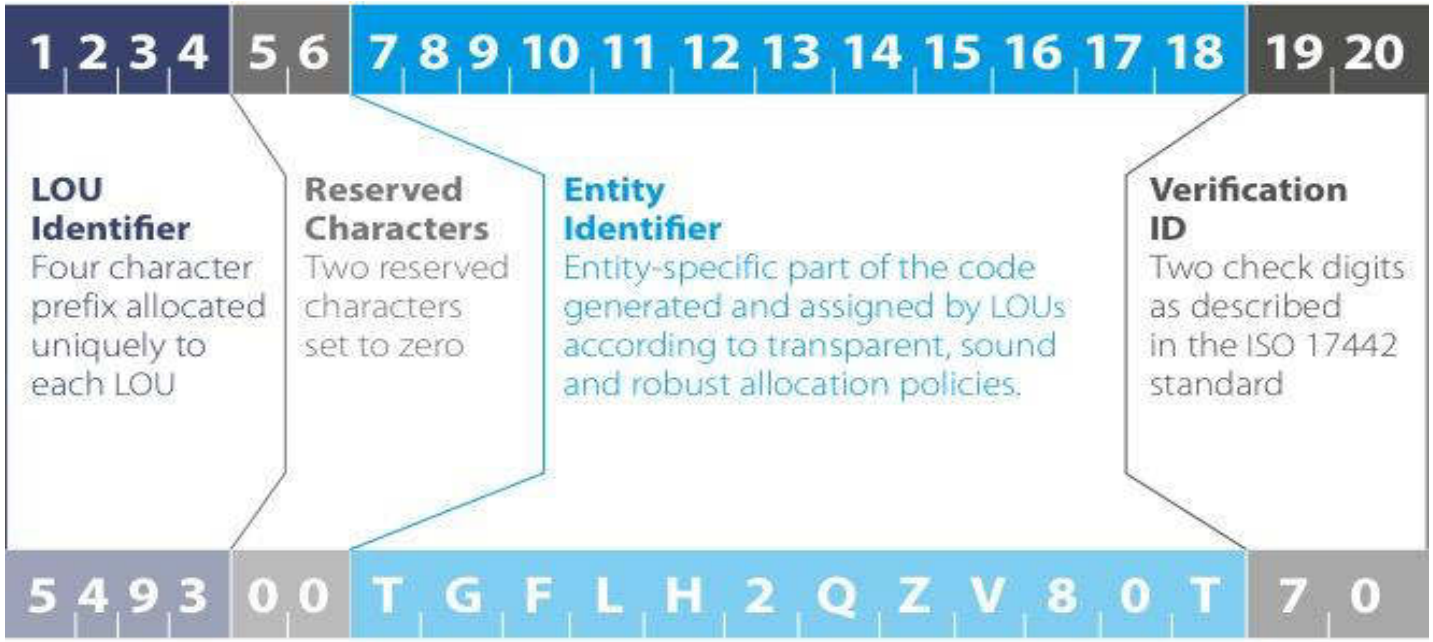
The LEI is based on the ISO 17442 standard

- Unique 20 digit alphanumeric code based on ISO 17442 standard assigned to legal entities
- LEIs are issued by local operating units (LOUs)
- LOUs supply registration, renewal and other services, and act as the primary interface for registrants for LEIs



Example: ABB Sécheron S.A., Switzerland

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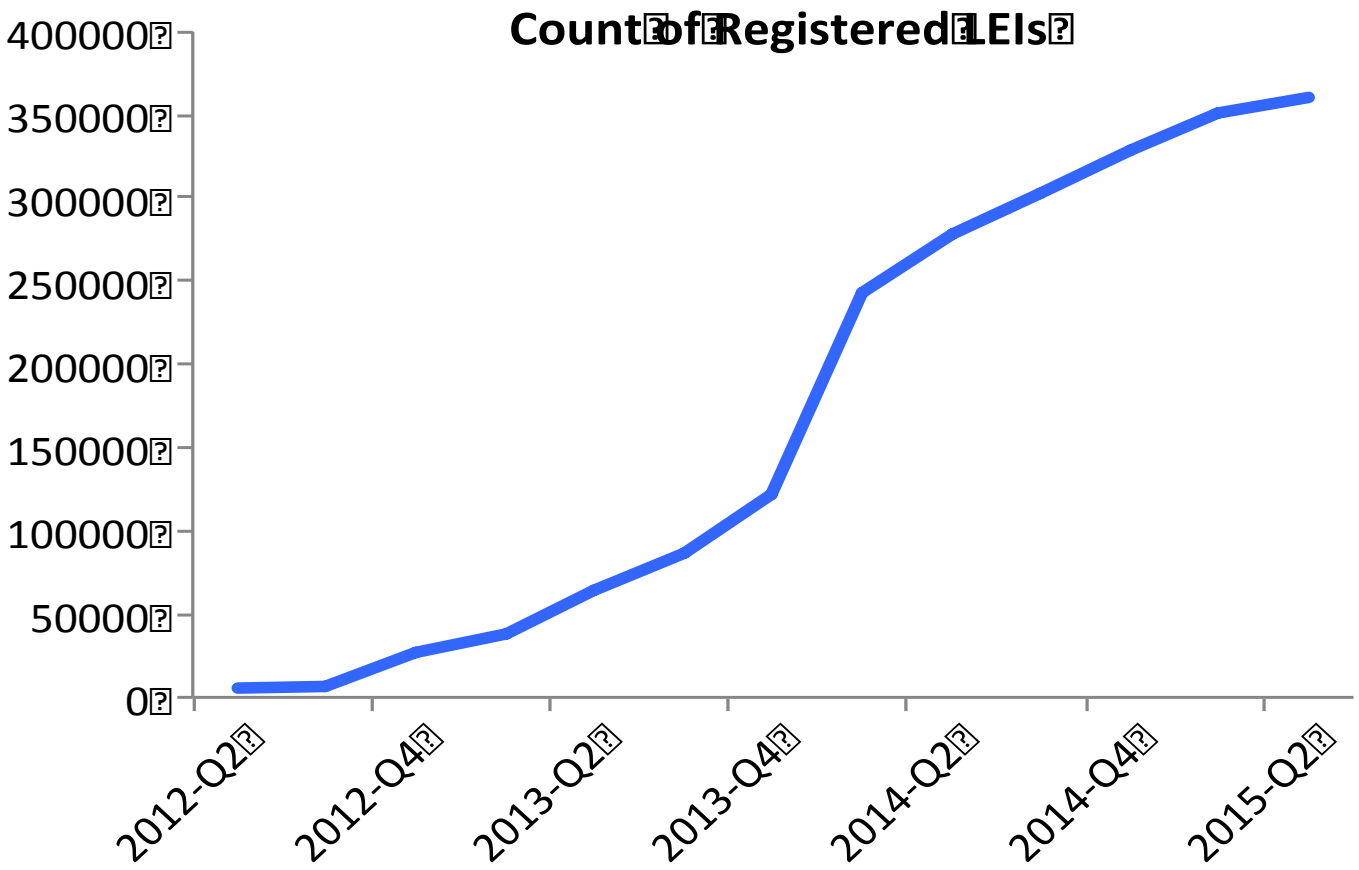
LEI growth path



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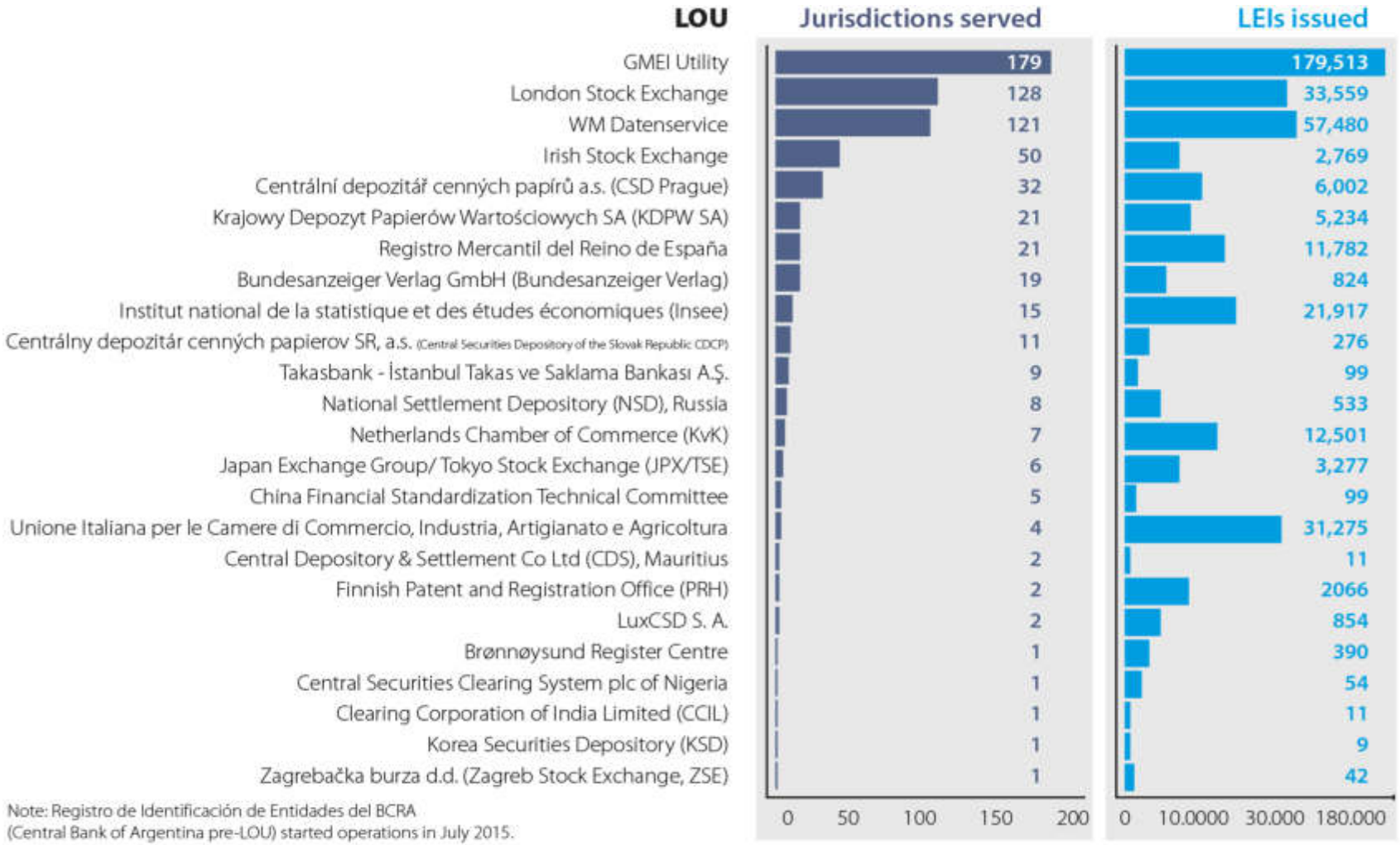
LOU portfolio: local, regional and global presence*

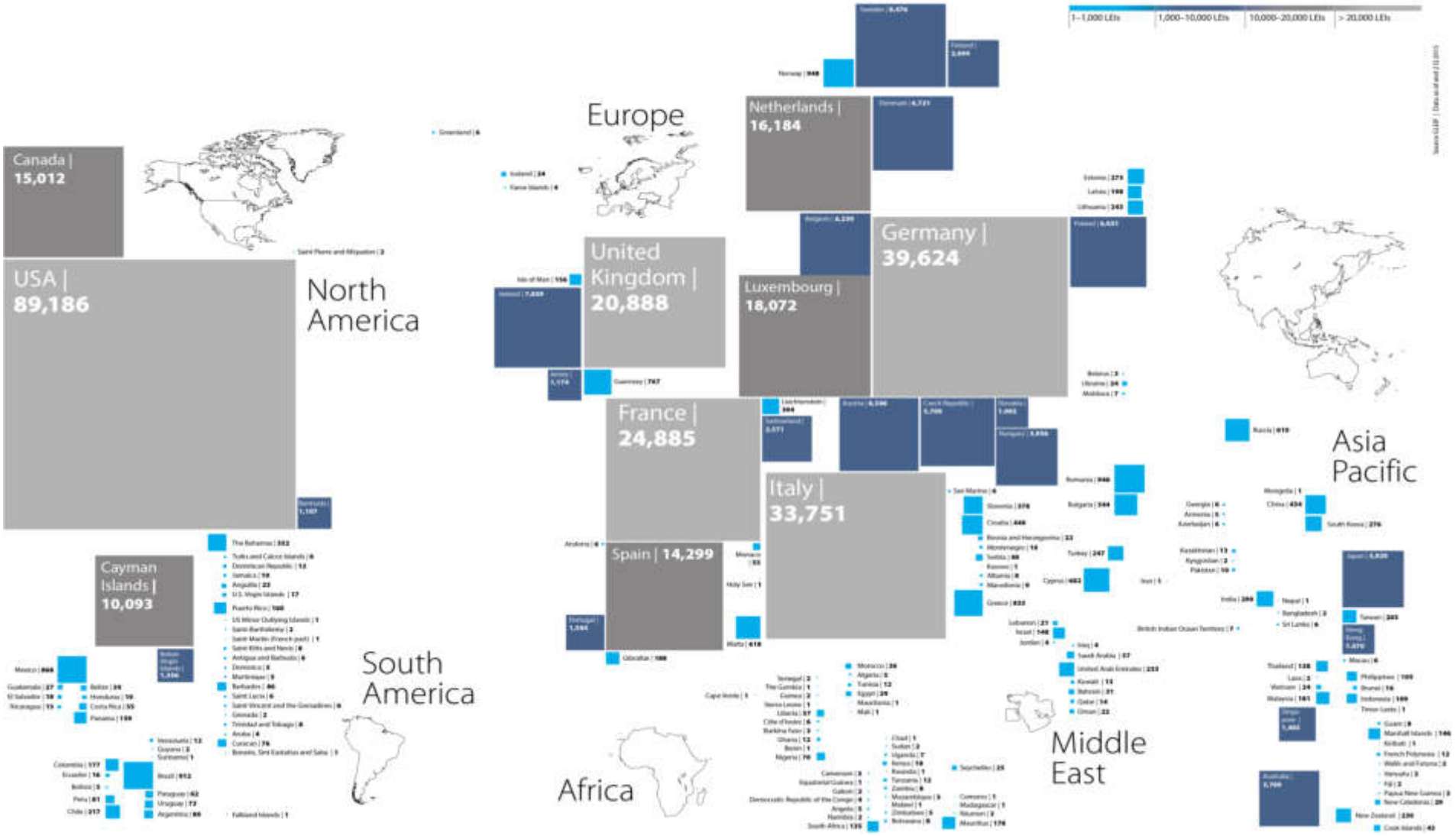
A legal entity in a jurisdiction can use the registration services of any LOU that is accredited and qualified to validate LEI registrations in the jurisdiction.



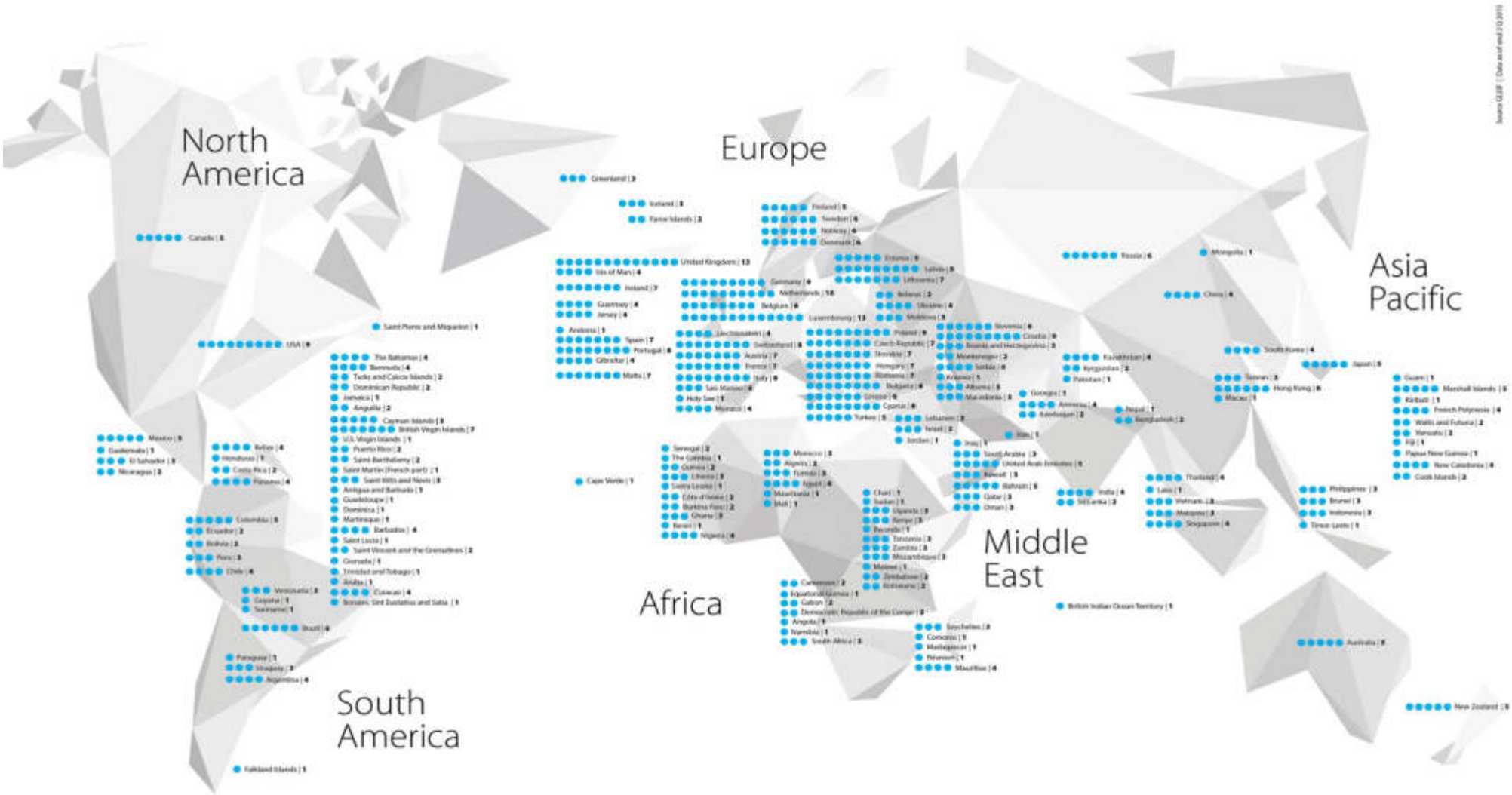
Note: Registro de Identificación de Entidades del BCRA (Central Bank of Argentina pre-LOU) started operations in July 2015.

*Figures as of end 2 Q 2015

Number of LEIs per country (end 2 Q 2015)



Number of LOUs serving a country (end 2 Q 2015)



2. Why LEI?

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Financial Stability Board press release (30 June 2014)

- **"Unique identification of parties to financial transactions underpins multiple financial stability objectives."**
  - Improved risk management in firms
  - Better assessment of micro and macro prudential risks
  - Facilitation of orderly resolution
- **"It also provides many benefits to the private sector."**
  - Lowering operational risks
  - Facilitating straight through processing

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Mark Carney and Bertrand Badré in the Financial Times (3 June 2015)

- "Authorities must ensure that they provide a clear and consistent interpretation and enforcement of international standards."

- **"They should work with the financial industry to pursue technical measures, such as the global Legal Entity Identifier system, which standardizes identification, and Know Your Customer platforms that help avoid duplicating due diligence work."**

- "Both solutions are already being implemented, but they need regulators' support to reach the scale needed to achieve more reliable due diligence."

Mark Carney is the Chairman of the Financial Stability Board. Bertrand Badré is Chief Financial Officer of the World Bank.

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For what (financial) transactions

- **Required by the public authorities in the following areas**
  - See 'Rulemaking' initiatives page at www.gleif.org
- **Risk assessment, market surveillance and enforcement**
  - Reporting to derivatives regulators
  - Reporting to securities regulators
  - Reporting to central banks
  - Reporting to insurance regulators
  - Reporting to pension funds regulators
  - Balance of payments reporting
  - AML (anti money laundering),
    CFT (combating the financing of terrorism) and sanction regimes
- **Other needs of the public sector**
  - Provision of statistical market research
  - Collateral management central banks
  - Public procurement

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Benefits of LEI adoption for users in the private sector

- **Global Financial Markets Association (GFMA)*:**
  - "LEIs allow for consistent identification of parties to financial transactions, facilitating a **consistent and integrated view of exposures**."
  - "A global, standardized LEI will enable organizations to more effectively measure and **manage counterparty exposure, while providing substantial operational efficiencies** and **customer service improvements** to the industry."

*GFMA represents the common interests of the world's leading financial and capital market participants, and speaks for the industry on the most important global market issues. GFMA's mission is to provide a forum for global systemically important banks to develop policies and strategies on issues of global concern within the regulatory environment. (www.gfma.org)

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Benefits of LEI adoption for users in the private sector

- **LEI adoption responds to business needs with regard to identification management in the following areas**
  - Correspondent banking
  - Trade finance (UCP 600)
  - Cash management corporates
  - Asset management for (pension) funds
  - Payment schemes
  - Card payment schemes
  - E-invoicing schemes
  - OTC (over-the-counter) trading
  - Trading, clearing and settlement rulebooks
  - Collateral Management
  - Data management
  - Credit rating
  - Market research

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Use cases: application of the LEI in the private sector

- LEI data are free of charge downloadable from www.gleif.org
- **Example: data management**
  - Easier mapping of legal entity reference data from multiple suppliers by using the LEI
  - Identification management of legal entities possible with reference data information only, e.g. mapping of legal company names across various systems
  - Higher data quality across operational systems leads to reduced data management cost, since LEI data is quality-assured via annual renewal cycles
  - Increased reporting capabilities at a lower cost

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3. The role of the Global Legal Entity Identifier Foundation (GLEIF) in the Global LEI System (GLEIS)

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What is the GLEIF?

- GLEIF is a Swiss Foundation founded by the **Financial Stability Board (FSB)**
- The Foundation has an (international) Board of 15 Directors that held its inaugural meeting on 26 June 2014
- The **Regulatory Oversight Committee (ROC)** oversees GLEIF
  - Represents members from public authorities across the globe
  - Three ROC Observers attend GLEIF Board meetings
- The **CPMI-IOSCO* Principles** for Financial Market Infrastructures 2012 are applicable to the oversight of the GLEIF by the ROC

*CPMI: Committee on Payments and Market Infrastructures
IOSCO: International Organization of Securities Commissions

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The role of the GLEIF in the Global LEI System

- **GLEIF performs four main functions:**

1. **Rulemaking:** proposes, defines, issues and enforces worldwide uniform operational and technical standards and protocols for LEIs and LEI Reference Data. GLEIF published on 7 October 2015 the Master Agreement.
2. **Operations:** provides the technical infrastructure necessary to unite and to make publicly available at www.gleif.org the LEI information published by Local Operating Units (LOUs)
3. **Monitoring:** accredits LOUs and monitors compliance of LOUs and users with the operational and technical standards and protocols. On 7 October 2015 GLEIF published the Master Agreement, which is the contractual framework governing the relationship between GLEIF and the LOUs. GLEIF published on 7 October 2015 the Accreditation Manual.
4. **Communication:** makes all relevant documentation available at www.gleif.org

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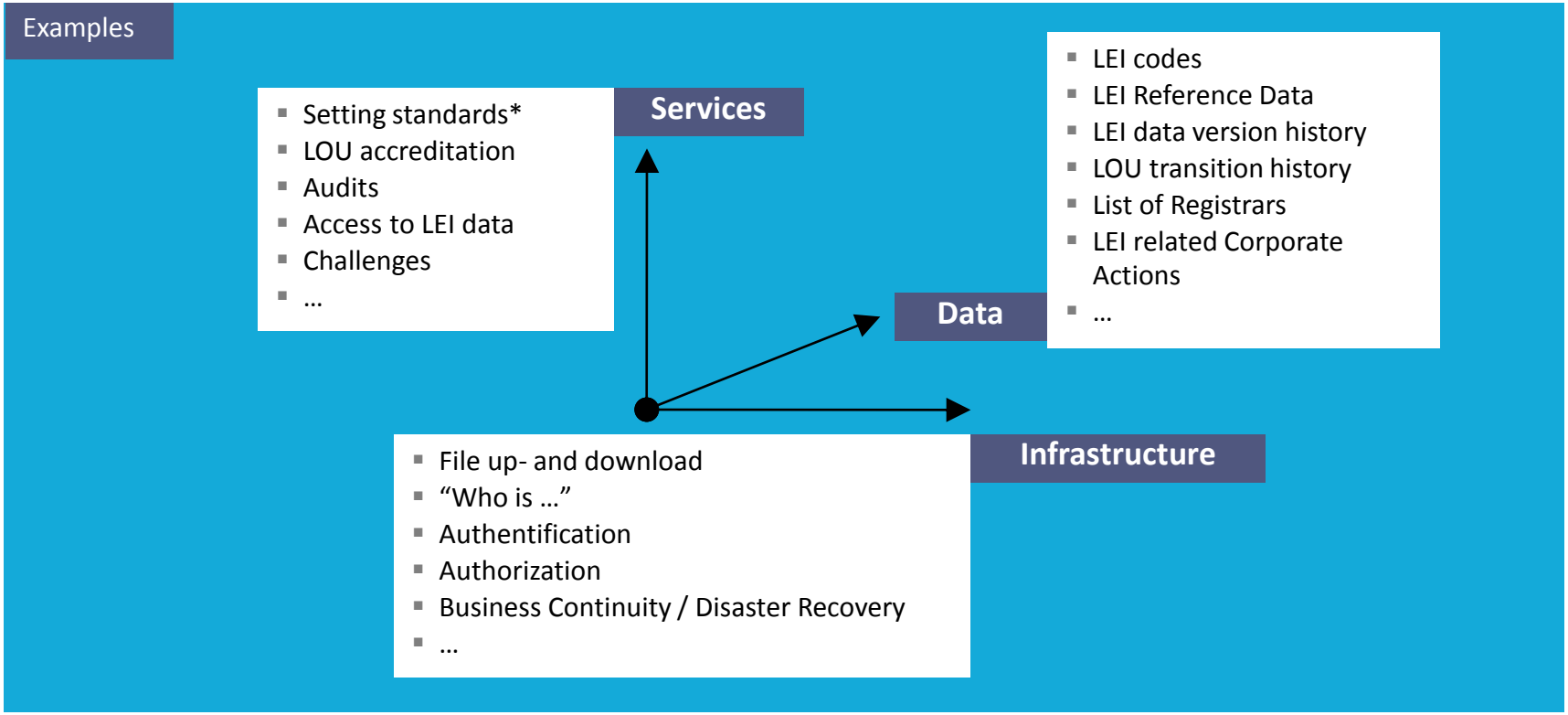
The role of the GLEIF in the Global LEI System

GLEIF is accountable and responsible for setting up the GLEIS in three dimensions. Business and technical process design will follow these dimensions.



* "Setting legal and technical standards and protocols" as service to the public and private sectors

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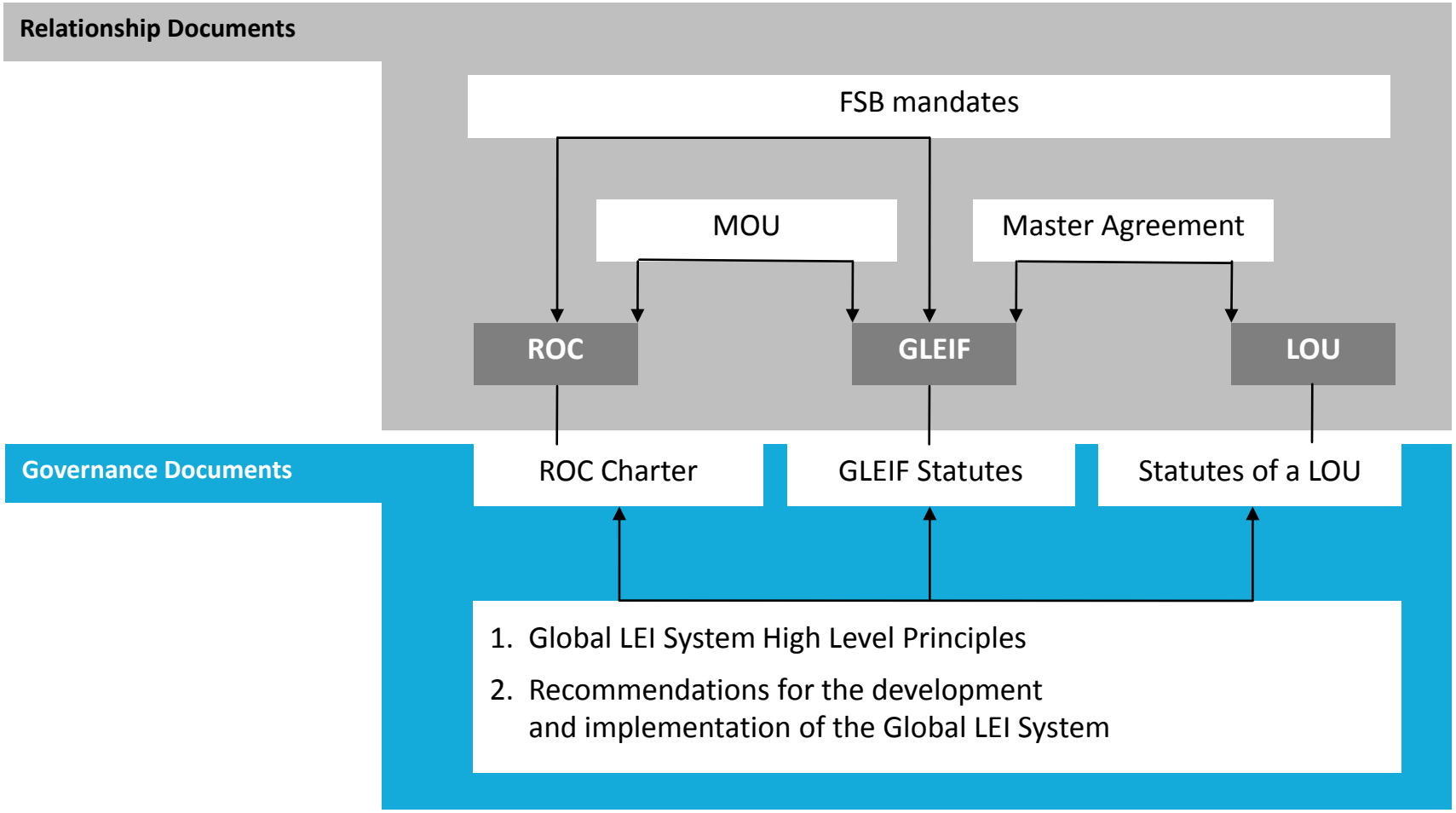
Global LEI System relationship and governance documents



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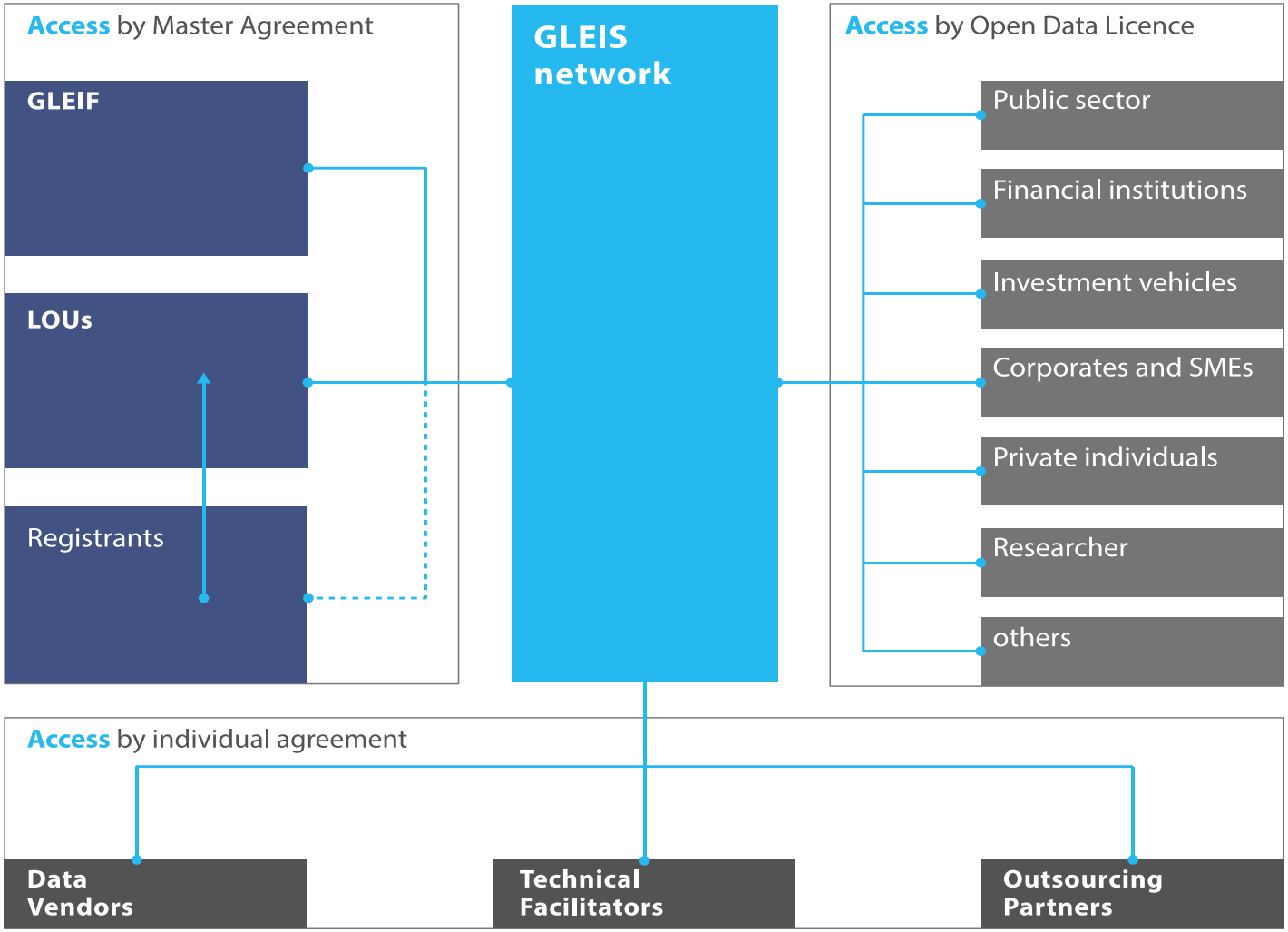
Global LEI System (GLEIS) as a legal network



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4. GLEIF infrastructure development and next steps

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GLEIF service: daily concatenated file

- **GLEIF collects daily the LEI data from the LOUs (Local Operating Units)**
  - The LOUs deliver the data to GLEIF in the CDF (Common Data File) format
  - GLEIF publishes daily the concatenated file with all individual files of the LOUs
  - The GLEIF Concatenated File is available at www.gleif.org
- This daily GLEIF unique service is available **free of charge to any user**

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Common Data File Format

LEI Data Record		[1..*]
LEI	LEI	[0,1]
Entity	Entity	[1]
LegalName	Name	[1]
OtherEntityNames	OtherEntityName	[0..n]
LegalAddress	Address	[1]
HeadquartersAddress	Address	[1]
OtherAddresses	OtherAddress	[0..n]
BusinessRegisterEntityID	BusinessRegisterEntityID	[0,1]
LegalJurisdiction	JurisdictionCode	[0,1]
LegalForm	Name	[0,1]
AssociatedEntity	Associated	[*]
EntityStatus	EntityStatusEnum	[1]
EntityExpirationDate	DateTime	[0,1]
EntityExpirationReason	EntityExpirationReasonEnum	[0,1]
SuccessorEntity	Successor	[0,1]
Registration	Registration	[1]
InitialRegistrationDate	DateTime	[1]
LastUpdateDate	DateTime	[1]
RegistrationStatus	RegistrationStatusEnum	[1]
NextRenewalDate	DateTime	[1]
ManagingLOU	LEI	[1]
ValidationSources	ValidationSourcesEnum	[0,1]
Extension	Extension	[0,1]

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GLEIF Concatenated File on www.gleif.org

LEI

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Overview

GLEIF Services

Access LEI Data

General Information

LEI Download

Original Sources

LOU Services

Issue New LEI

Manage Data Challenges

Details for LEI data published on 2015-06-08

GLEIF Concatenated File

Download concatenated file (2015-06-08)

372,067 LEI records, 42.53 mb, Created by GLEIF
MD5 Checksum:
fa8f9e5c108a2f3f85a104a032e12195

Pre-LOU original source files

Back to LEI Download

Pre-LOU	Content Date	Download Date	MD5 Checksum	Record Count	Source File	Status
Brønnøysund Register Centre	2015-06-08	2015-06-08	Show Checksum	381	Download (28.17 kb)	✓
Bundesanzeiger Verlag Gm Verlag)						
Central Depository & Settle Mauritius						
Central Securities Clearing						

Status Icons Explained:

- ✓ Source file was available for download from LOU on day of concatenation and it was compliant with the common data file (CDF) format.
- Source file was not available for download from LOU on day on concatenation or was not compliant with the common data file (CDF) format. An earlier file, which was compliant with the common data file (CDF) format but might not be up-to-date, was used to create the concatenated file. Click the corresponding status icon for more information.
- Source file was never available from LOU or was never compliant with the common data file (CDF) format. No data of the respective LOU is included in the concatenated file.

GLEIF service: daily golden copy

- The LEI services will be upgraded before the end of October 2015
- Additional features are planned to be included in the Common Data File Format such as Business Register and Legal Entity Form ISO 20275
- Search engine allows database search with multiple search criteria
- Search results will be displayed
- Search results will also be available for download in various formats
- There will be a golden copy file available which is generated out of the database with always up to date LEI records

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Next steps for GLEIF

1. **"Who is who" (in progress)**
   - Rollout program is the current key focus of the GLEIF
   - ROC prepares policies for adding BR (Business Register) and Entity Legal Forms ISO 20275 to the CDF (Common Data File)
   - ROC is preparing a policy for branches and for sole traders
2. **"Who owns whom"**
   - Draft consultation paper on direct and ultimate parents of the ROC was published on 7 September 2015
   - The ROC Chair has informed the GLEIF that it will get a mandate to execute this program
3. **What is linked?**
   - ISO 6166 ISIN
   - ISO 9362 BIC
   - Etc

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5. Options of the LEI for the Asian Bond Market Initiative

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Options of the LEI for the Asian Bond Market Initiative

- LEI is a unique global legal entity identifier that supports the Asian Bond Market Initiative
- Inclusion of the LEI in the bond transaction processes (inclusive payments) will contribute to more standardization
- Inclusion of the LEI will improve the management of operational risks for all actors in the bond market
- The SWIFT community plans to include the LEI in the Category 5 securities messages for the November 2016 release
- The CPMI published a consultative report on correspondent banking with the recommendation to include the LEI in the payment messages to mitigate AML/CFT risks

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ADB

20th ABMF SF2:

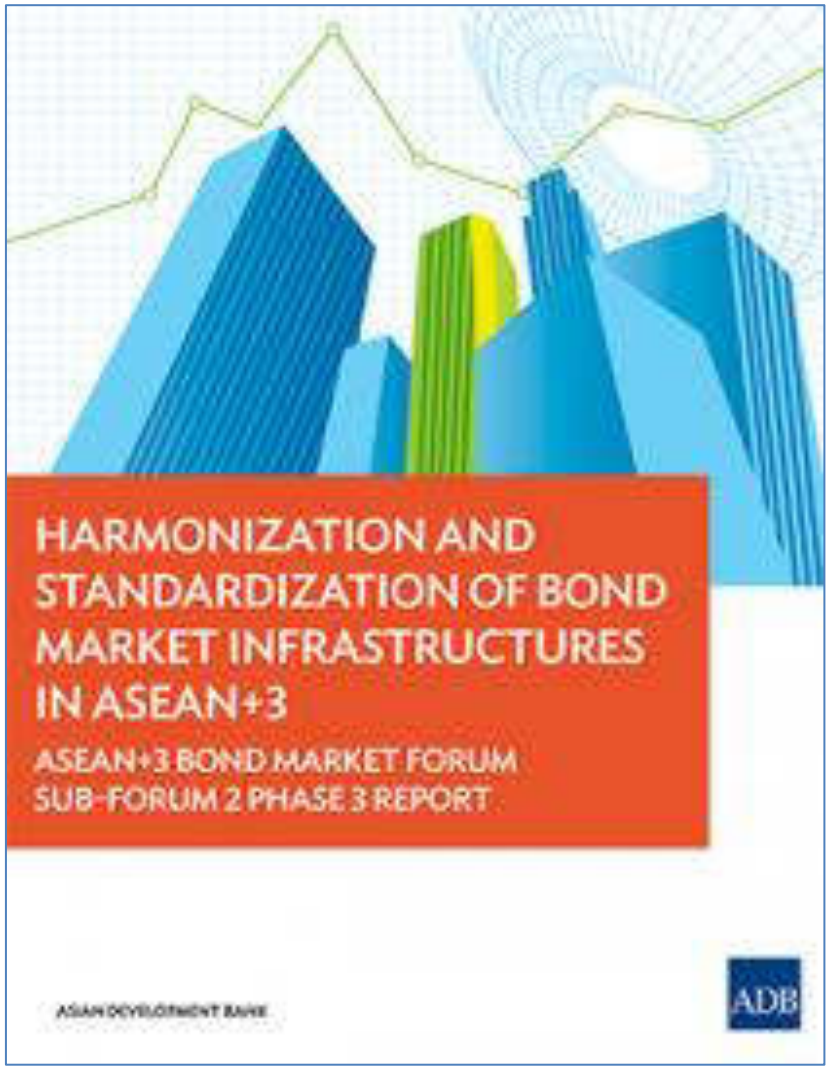
Updating ABMF SF2 related issues

16 October 2015 in Singapore

Preliminary Draft

NTT DATA
Global IT Innovator

Taiji Inui
ADB Consultant - Financial Information Technology Specialist
NTT DATA Corporation and NTT DATA Institute of Management Consulting

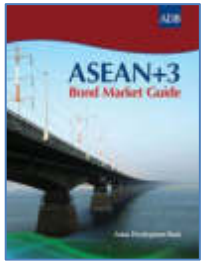


Harmonization and Standardization of Bond Market Infrastructures in ASEAN+3

ABMF SF2 Phase 3 Report

http://www.adb.org/publications/harmonization-and-standardization-bond-market-infrastructures-asean3

Related Previous Reports Submitted to ABMI



ASEAN+3 Bond Market Guide: January 2012

http://www.adb.org/publications/asean3-bond-market-guide

ASEAN+3: Information on Transaction Flows and Settlement Infrastructures: December 2013

http://www.adb.org/publications/asean3-information-transaction-flows-and-settlement-infrastructures

Basic Principles on Establishing a Regional Settlement Intermediary and Next Steps Forward: May 2014

http://www.adb.org/publications/basic-principles-establishing-regional-settlement-intermediary-next-steps

Progress Report on Establishing a Regional Settlement Intermediary and Next Steps: May 2015

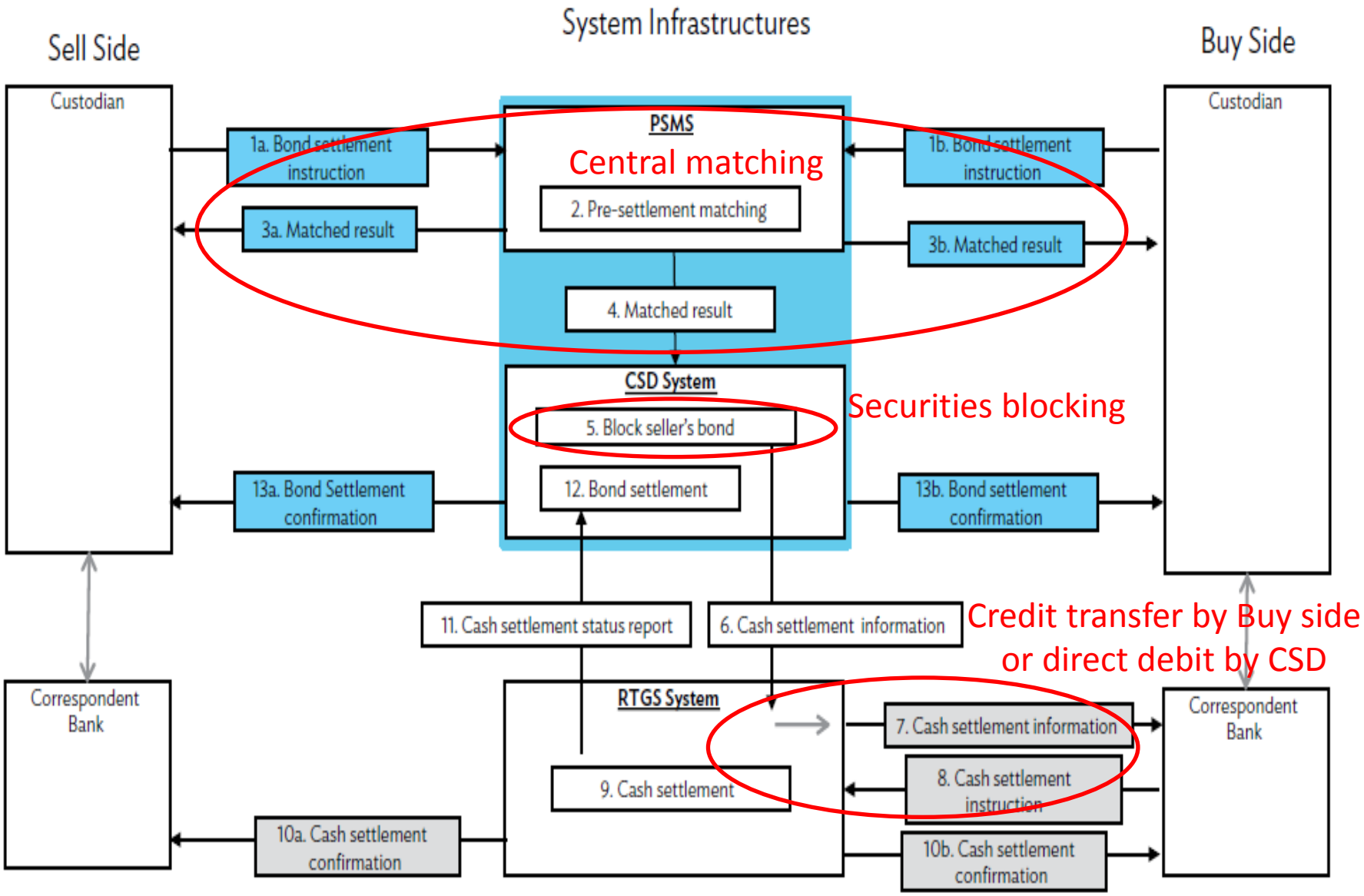
http://www.adb.org/publications/progress-report-establishing-regional-settlement-intermediary-and-next-steps

Contents

1. Reference DVP flow and ISO 20022 message items for cross-currency DVP (repo)
2. Surveying cross-border collateral and cross-currency repo services
3. Possible transaction flows of BN, KH, LA, and MM
4. ISO Institutional Framework
5. Possible next steps

Reference DVP flow and ISO 20022 message items for cross-currency DVP (repo)

Proposed Reference DVP Flow



Source: ABMF SF2

Proposed Reference DVP Flow

1. Custodians (both sell and buy sides) enter the term “Securities Settlement Transaction Instructions” into a PSMS (or a CSD if PSMS functions are provided by the CSD).3
2. Pre-settlement matching needs to be completed 1 day before the settlement date (S-1).
3. Matched results (Securities Settlement Transaction Status Advice) are sent back to the sell side and buy side.
4. Matched results are transferred from a PSMS to a CSD, if the PSMS and CSD are operated in different platforms.
5. The CSD blocks (earmarks) the sell-side bond.
6. The CSD transfers cash settlement information to the RTGS to effect cash settlement for the DVP settlement.
7. The RTGS forwards the cash settlement information to the correspondent bank of the buy side. Although a forwarding message and the subsequent step, cash settlement instruction, is omitted in some markets, it is recommended that credit transfer instructions from the buy side be effected for high-value payments like bond DVP settlement, in particular for cross-border transactions. When omitting steps 7 and 8, a pre-arrangement, such as earmarking the exact amount for the settlement, needs to be secured beforehand.
8. The buy-side correspondent bank sends cash settlement instruction to the RTGS to effect credit transfer for DVP settlement.
9. Cash settlement is effected by transferring funds from the buy-side current account to the sell-side current account in the RTGS.
10. When cash settlement is successfully completed, cash settlement confirmations are sent to both the sell and buy sides.
11. Also, a cash settlement status report is sent from the RTGS to the CSD.
12. The blocked bond is released to the buy-side account in the CSD.
13. Bond settlement confirmations are sent from the CSD to both the sell and buy sides.

Source: ABMF SF2

Points to be discussed

1. Central matching or local matching (1a and 1b)
2. Blocking securities (5)
3. Forwarding cash settlement information and entering cash settlement instruction (7 and 8)
   - When omitting steps 7 and 8, a pre-arrangement, such as earmarking the exact amount for the settlement, needs to be secured beforehand.

Cross-border STP (objective of ABMF SF2)

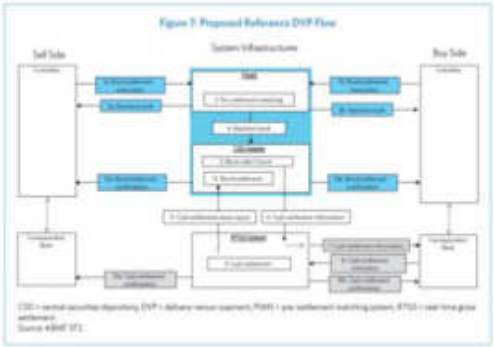
Study cross-currency DVP Connecting possible two economies as examples

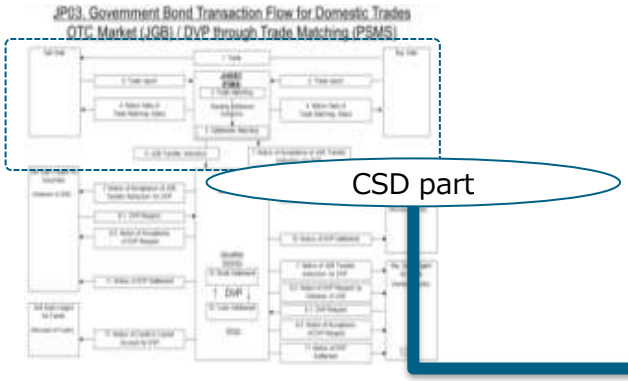
This is just possible examples of cross-currency DVP flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators and participants.

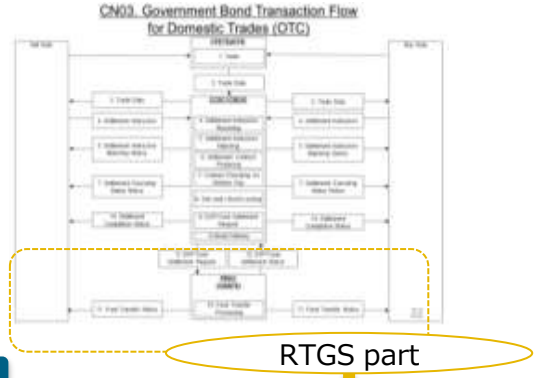
Cross-currency DVP Flow

Linking DVP flows of two economies

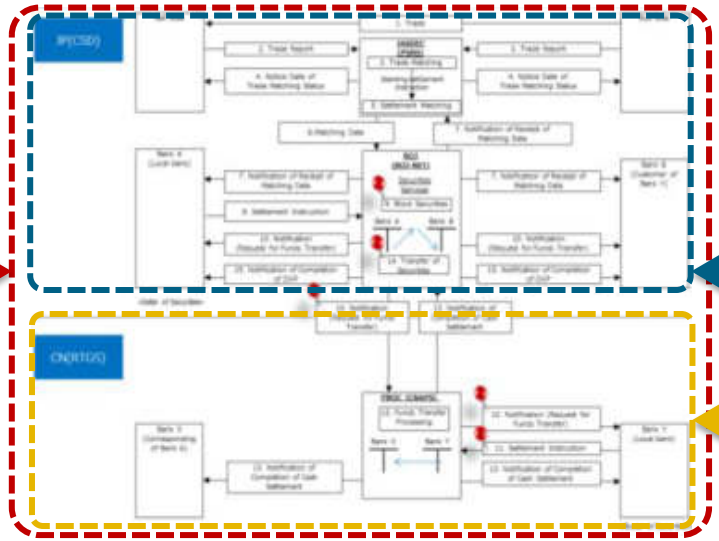
Reference DVP Flow	Securities settlement of economy A	Cash settlement of economy B







CSD-RTGS Linkageにおける証券決済DVPフロー



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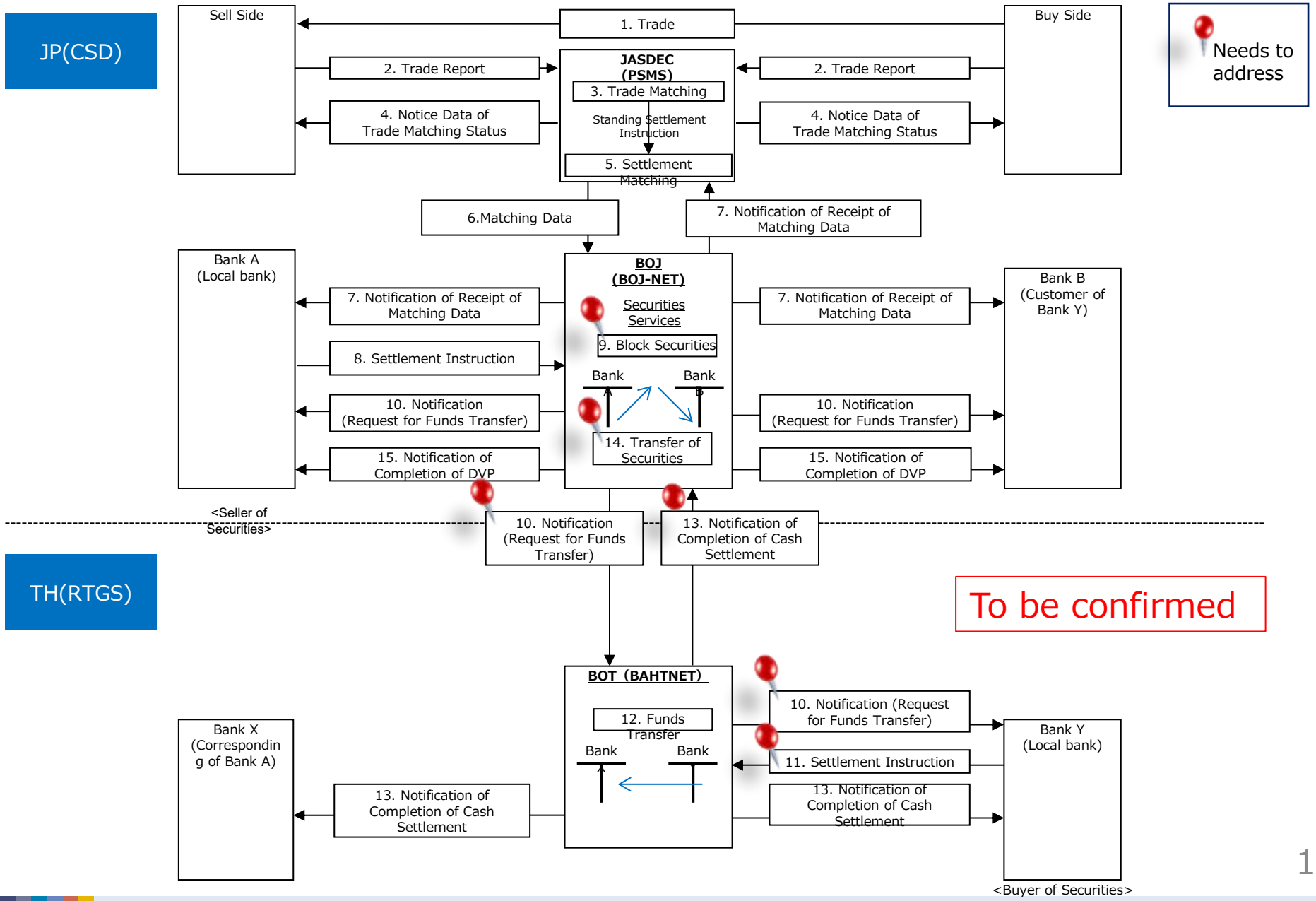
Possible example: Thailand (TH) and Japan
CSD(JP)-RTGS(TH) Linkage Flow of Government Bond



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An example: Thailand (TH) and Japan CSD(JP)-RTGS(TH) Linkage Flow of Government Bond Process(1/2)

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To be confirmed

Process	Description
1. Trade	• Sell side and buy side trade government bond over-the-counter.
2. Trade Report	• Both sell side and buy side send trade report to Japan Securities Depository Center, Inc.(JASDEC).
3. Trade Matching	• JASDEC performs trade matching.
4. Notice Data of Trade Matching Status	• JASDEC notifies both sell side and buy side of trade matching status.
5. Settlement Matching	• JASDEC performs settlement matching with Standing Settlement Instruction (SSI) generated by Pre-Settlement-Matching System(PSMS).
6. Matching Data	• JASDEC sends Matching Data to Bank of Japan(BOJ).
7. Notification of Receipt of Matching Data	• Upon receipt of the matching data, BOJ-NET sends an acknowledgment (notification of receipt of matching data) to both Bank A, Bank B and PSMS. • Either Bank A or Bank B can cancel the matching data until BOJ-NET executes the securities settlement instruction from Bank A.
8. Settlement Instruction	• Bank A sends a securities settlement instruction to BOJ-NET. Bank A cannot cancel the securities settlement instruction after sending it to BOJ-NET. • If it does not receive the securities settlement instruction by the cut-off time, BOJ-NET cancels the corresponding matching data.
9. Block Securities	• BOJ-NET blocks securities in Bank A's account. • In case of shortage of BOJ's securities, the blocking of securities is unsuccessful, BOJ-NET cancels the securities settlement instruction and sends a notification of cancellation of securities settlement instruction to Bank A. The matching data remains in BOJ-NET until the cut-off time.

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An example: Thailand (TH) and Japan
CSD(JP)-RTG S(TH) Linkage Flow of Government Bond Process(2/2)

NTT DATA

To be confirmed

Process	Description
10. Notification (Request for Funds Transfer)	• If the blocking is successful, BOJ-NET sends a notification (request for funds transfer) to BAHTNET. • After validating the notification, BAHTNET sends a notification(request for funds transfer) to Bank Y.
11. Settlement Instruction	• Bank Y sends cash settlement instruction to BAHTNET.
12. Funds Transfer	• After receiving the cash settlement instruction from Bank Y, BAHTNET debits Thai Baht from Bank Y's account and credits the same amount to Bank X's account. • If cash settlement is unsuccessful, BAHTNET places the cash settlement instruction in the queue. BAHTNET effects the cash settlement instruction once Bank Y has sufficient funds in its account.
13. Notification of completion of Cash Settlement	• BAHTNET returns notification of completion of cash settlement to BOJ-NET, Bank X and Bank Y upon successful cash settlement.
(In case of Unsuccessful Funds Transfer) 13*. Unsuccessful Funds Transfer	• Bank Y can cancel the queued cash settlement instruction. • If the validation is unsuccessful, BAHTNET cancels the notification (request for funds transfer) and sends a notification of cancellation of request for funds transfer to BOJ-NET. BOJ-NET releases the blocked securities and sends a notification of release of securities to both Bank A and Bank B. • If cash settlement is cancelled or not completed by the cut-off time, BAHTNET sends notification of cancellation to BOJ-NET. BOJ-NET releases the blocked securities and sends notification of release of securities to both Bank A and Bank B.
14. Transfer of Securities	• BOJ-NET transfers securities from Bank A's account to Bank B's account. • If BAHTNET is in short of funds after the cut-off time, BOJ-NET cancels the securities settlement instruction and the matching data.
15. Notification of Completion of DVP	• BOJ-NET sends notification of completion of DVP to both Bank A and Bank B.

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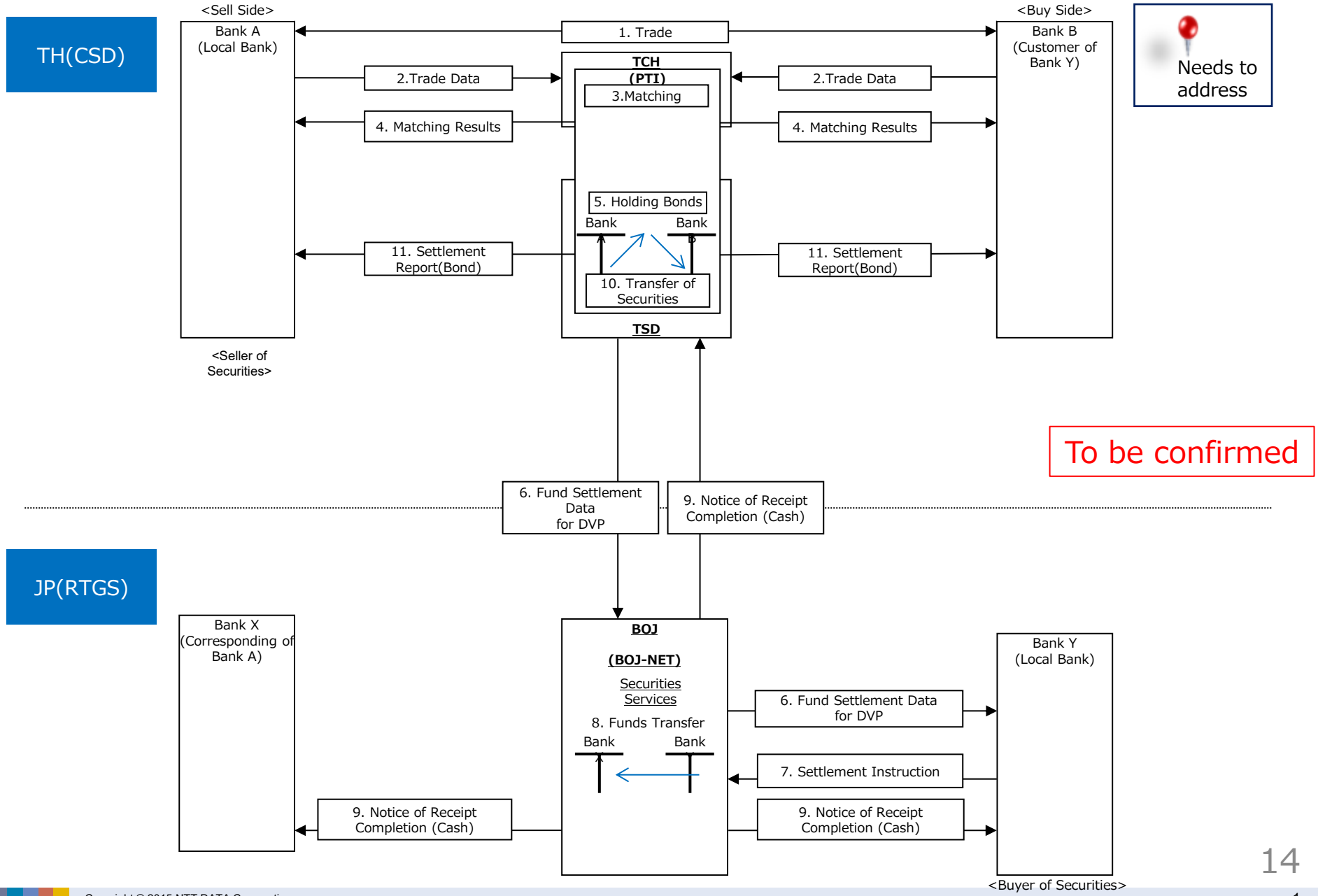
Possible example: Thailand (TH) and Japan
CSD(TH)-RTGS(JP) Linkage Flow of Government Bond



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Possible example: Thailand (TH) and Japan
CSD (TH)-RTGS (JP) Linkage Flow of Government Bond Process (1/2)

NTT DATA

To be confirmed

Process	Description
1. Trade	• Sell side and buy side trade via OTC market.
2. Trade Data	• Sell side and buy side send transaction details to TCH via PTI System
3. Matching	• TCH matches trade data from sell side and buy side.
4. Matching Results	• TCH sends matching results to sell side and buy side via PTI System.
5. Holding Bonds	• TCH sends settlement details to TSD. Then, TSD checks availability and blocks securities in member's account. • In case of shortage of TSD's securities, the blocking of securities is unsuccessful, TSD cancels the securities settlement instruction and sends a notification of cancellation of securities settlement instruction to Bank A. The matching data remains in TSD until the cut-off time.
6. Fund Settlement Data for DVP	• If the blocking is successful, TSD sends a notification (request for funds transfer) to BOJ-NET. • After validating the notification, BOJ-NET sends a notification(request for funds transfer) to Bank Y. • If the validation is unsuccessful, BOJ-NET cancels the notification (request for funds transfer) and sends a notification of cancellation of request for funds transfer to TSD. TSD releases the blocked securities and sends a notification of release of securities to both Bank A and Bank B.
7. Settlement Instruction	• Bank Y sends cash settlement instruction to BOJ-NET.

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Possible example: Thailand (TH) and Japan CSD (TH)-RTGS (JP) Linkage Flow of Government Bond Process (2/2)

NTT DATA

To be confirmed

Process	Description
8. Funds Transfer	• After receiving the cash settlement instruction from Bank Y, BOJ-NET debits Japanese Yan from Bank Y's account and credits the same amount to Bank X's account • If cash settlement is unsuccessful, BOJ-NET places the cash settlement instruction in the queue. BOJ-NET effects the cash settlement instruction once Bank Y has sufficient funds in its account.
9. Notice of Receipt Completion (Cash)	• BOJ-NET returns notification of completion of cash settlement to TCH and Bank X and Bank Y upon successful cash settlement.
(In case of Unsuccessful Funds Transfer) 9*. Unsuccessful Funds Transfer	• Bank Y can cancel the queued cash settlement instruction. • If cash settlement is cancelled or not completed by the cut-off time, BOJ-NET sends notification of cancellation to TCH. TCH releases the blocked securities and sends notification of release of securities to both Bank A and Bank B.
10. Transfer of Securities	• TCH transfers securities from Bank A's account to Bank B's account. • If BOJ-NET is in short of funds after the cut-off time, TCH cancels the securities settlement instruction and the matching data.
11. Settlement Report (Bond)	• TSD sends settlement reports to sell side, buy side and TCH via PTI System.

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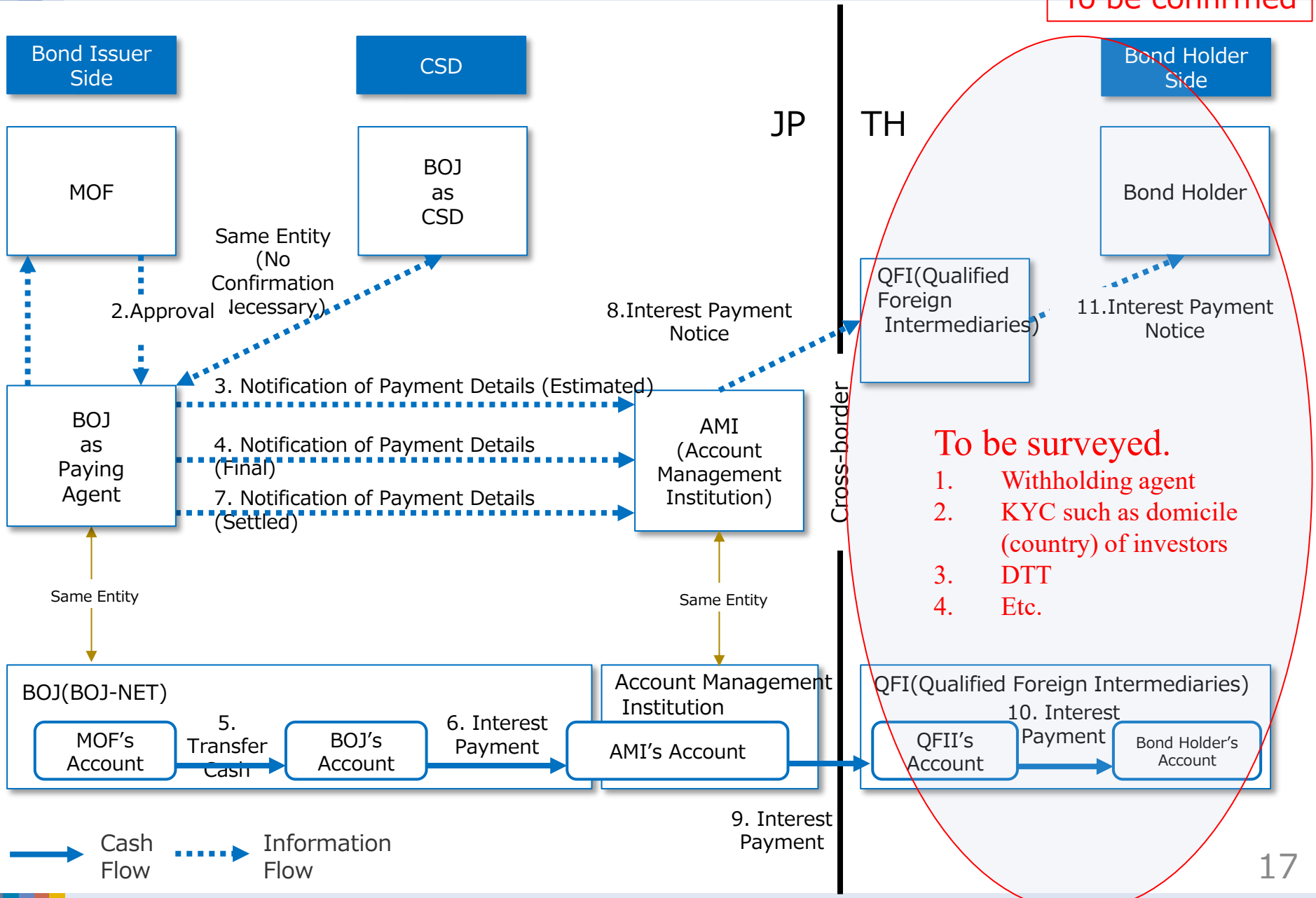
Possible example: Thailand (TH) and Japan

CSD(JP)-RTGS(TH) Interest Payment Flow of Government Bond

To be confirmed



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Possible example: Thailand (TH) and Japan
CSD(JP)-RTGS(TH) Interest Payment Flow of Government Bond Process

NTT DATA

To be confirmed

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 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 notifies qualified foreign intermediaries of interest payment.
9.	• Account management institutions credit to qualified foreign intermediaries accounts with interest payment.
10.	• Qualified foreign intermediaries credit to bondholder's accounts with the settled interest paid by BOJ.
11.	• Qualified foreign intermediaries notifies bond holders of interest payment.

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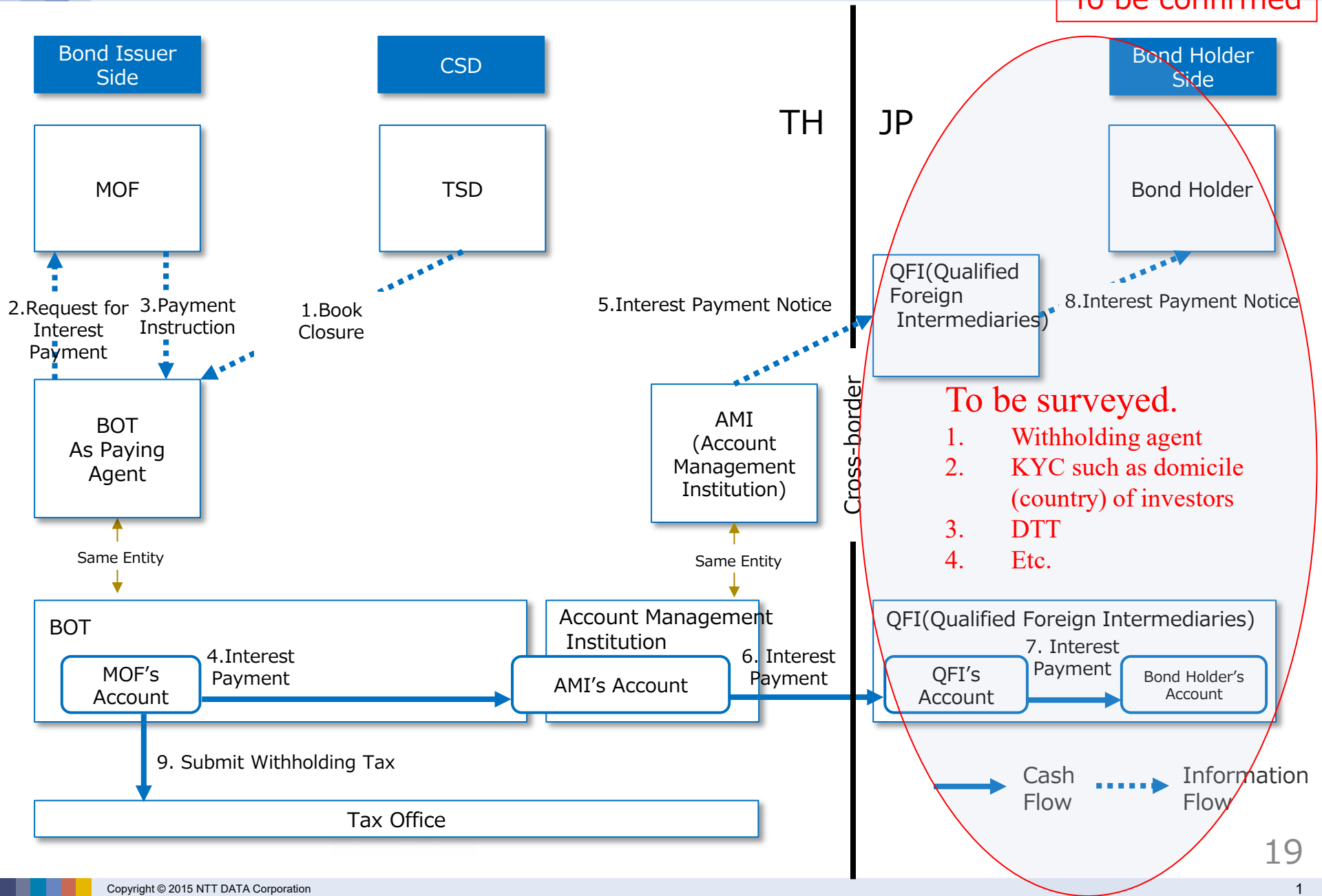
Possible example: Thailand (TH) and Japan
CSD(TH)-RTGS(JP) Interest Payment Flow of Government Bond

NTT DATA

To be confirmed



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Possible example: Thailand (TH) and Japan
CSD(TH)-RTGS(JP) Interest Payment Flow of Government Bond Process

NTT DATA

To be confirmed

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 scrip 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 notifies qualified foreign intermediaries of interest payment.
6.	• Account management institutions credit to qualified foreign intermediaries accounts with interest payment.
7.	• Qualified foreign intermediaries credit to bondholder's accounts with the settled interest paid by BOJ.
8.	• Qualified foreign intermediaries notifies bond holders of interest payment.
9.	• BOT submits withholding tax to the Revenue Department (on a monthly basis).

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The list of Fit and Gap Analysis (examples)

NTT DATA

To be confirmed

No.	Issues	Economy					
		BN	CN	---	TH	VN	
1.	Some book-entry system do not have the function of 'block of the securities', because book-entry system and RTGS are the same infrastructure.						CSD
2.	Many book-entry system do not have the function to send cash settlement instruction to RTGS located in other economies.						CSD
3.	Many book-entry system do not have the function to receive cash settlement report from RTGS located in other economies.						CSD
4.	Some economies have pre-settlement matching and participants use the function of Standing Settlement Instruction(SSI) for trades by residents. If cash settlement is performed in other economy, participants would like to use the function of SSI or not.						CSD
5.	Many RTGS do not have the function of passing cash settlement notification from CSDs located in other economies to participants of its RTGS.						RTGS
6.	Related to ID.5, many RTGS do not have function to receive Cash Settlement Instruction from buy side.						RTGS
7.	After receiving cash settlement instruction from, RTGS should make a decision that cash settlement instruction is valid or not. However, there is no regulated method how to decide valid or invalid instruction.						RTGS
8.	There are time lags about cut-off time and operating hour between CSDs and RTGS. In this situation, cash settlement instruction wait in queue because of shortage of fund beyond cut-off time of CSDs in other country. Book-entry system make a fail of securities settlement instruction in accordance with cash settlement in the queue.						RTGS

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The list of Fit and Gap Analysis (examples)

NTT DATA

To be confirmed

No.	Issues	Economy					
		BN	CN	---	TH	VN	
9.	In some economies, paying agents send notice of interest payment more than once. Investors and their custodians located in other countries should receive multiple notice of interest payment or not.						Interest payment
10.	Some economies have the scheme of QFI (Qualified foreign intermediaries) to identify information such as domicile (country) of investors outside the country, but other economies do not have such a scheme.						Interest payment
11.	Procedures of taxation such as withholding tax for non-resident are different country by country and economy by economy.						Interest payment
12.	Procedures of currency exchange related to interest and redemption payment are different economy by economy.						Interest payment
13.	Some economies regulate pre-funding for bond trading. If bond trade executes in economy which have pre-funding regulation but cash settlement executes in another economy which does not have a such kind of regulation, how to dealt with pre-funding regulation.						Regulation
14.	Some economies have a regulation about trade report to authorities but other economies do not have it. In case of cross-border DVP, participants should submit trade report or not.						Regulation
15.	For FX trade, some economies impose that all FX forward value transactions must match with the underlying securities transactions. In case of cross-border DVP, how to dealt with such kind of regulations.						Regulation
16.	For cross-border bond trading, some economies regulate that market participants report to central bank before trade execution. In case of cross-border DVP, how to dealt with such kind of regulations.						Regulation

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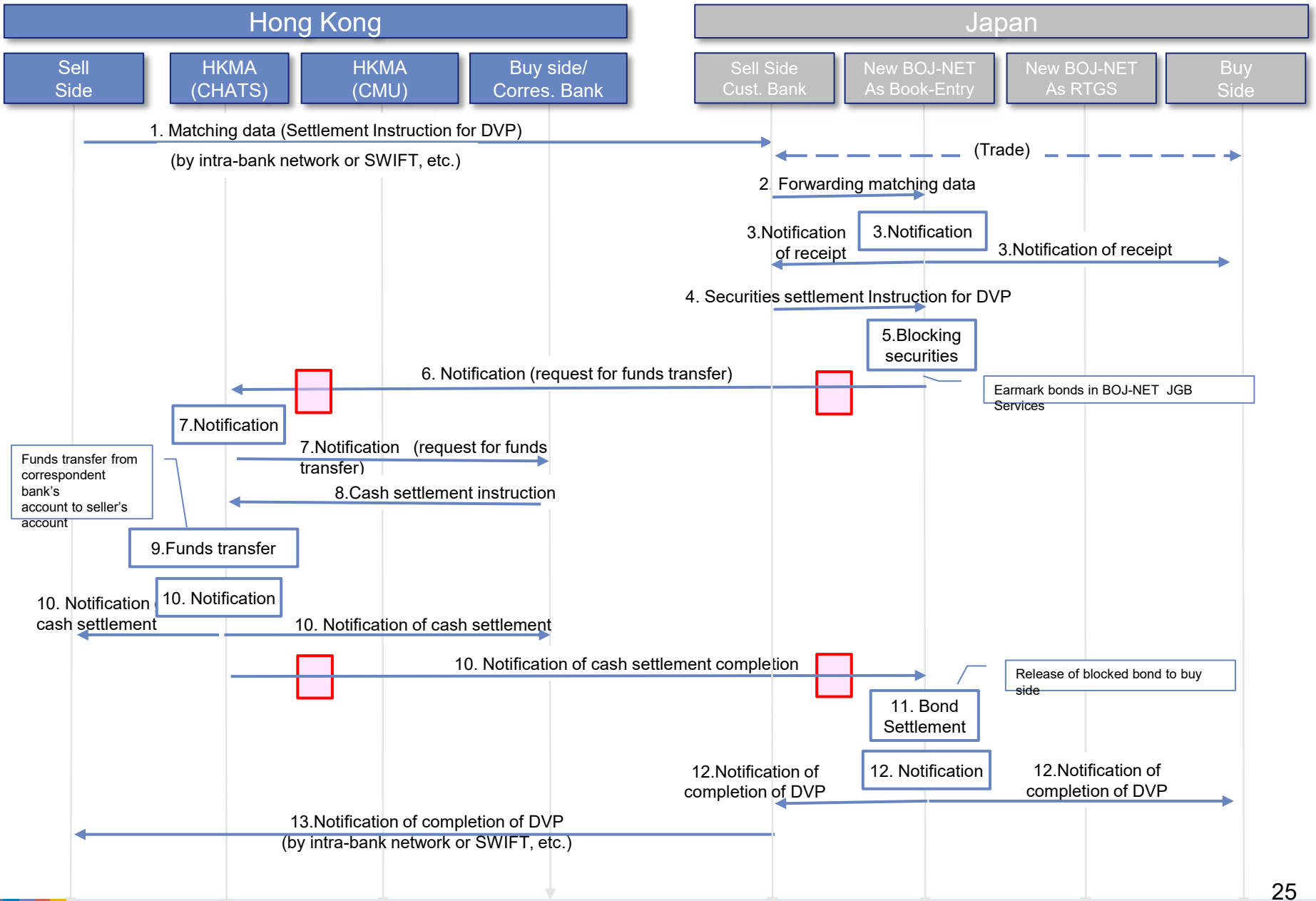
Message items for DVP

1. Minimum (essential) message items for domestic DVP settlement are proposed for each message (sese.023, sese.024, sese.025, pacs.009, and camt.054).
2. Also, basic definition of each essential message item is proposed based on ISO 20022 definition.
3. Cross-currency DVP is proposed to implement cross-border STP by CSIF

Cross-border STP
(objective of ABMF SF2)

Cross-currency DVP Example



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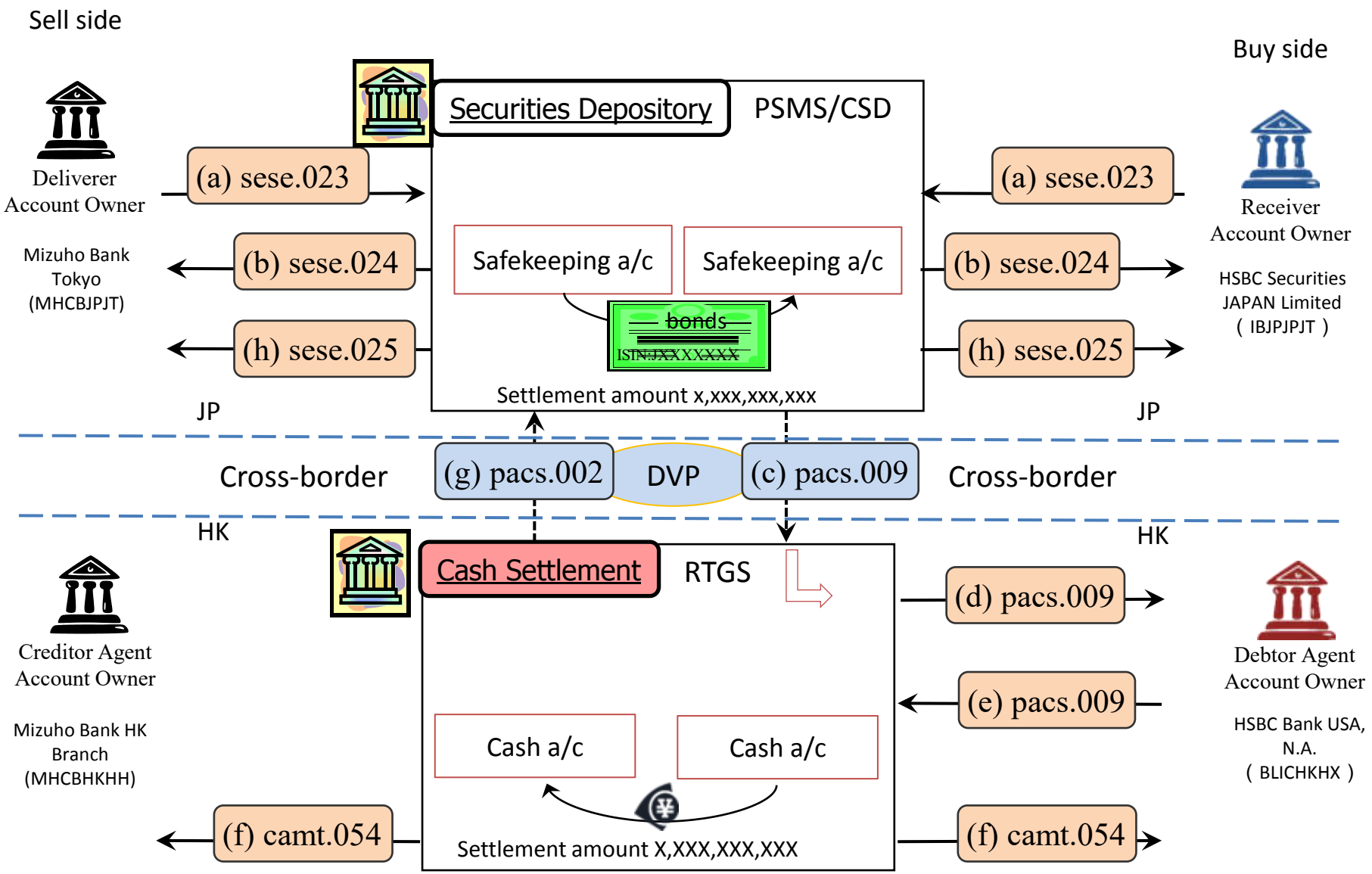
Example of Standard ISO 20022 Messages and Items



Definition of message items in ASEAN+3 were different country by country and economy by economy

Essential (minimum) message items are trying to be standardized

When considering cross-border transactions, messages for domestic transactions do not have specific message items.

Message items for securities settlement instruction sese.023

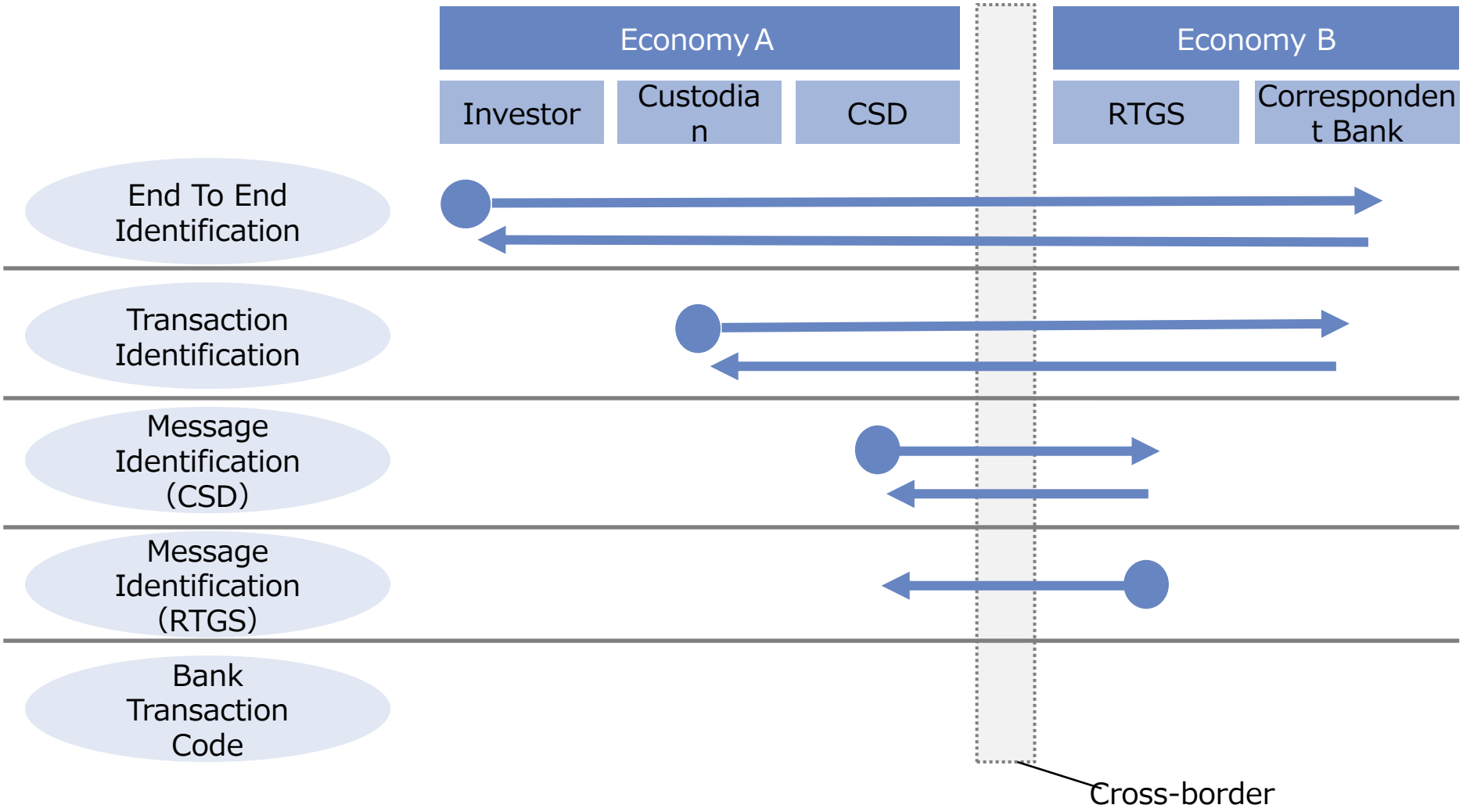
Message Items	Definition
Transaction Identification	Unambiguous identification of the transaction as known by the instructing party.
Securities Movement Type	Specifies if the movement on a securities account results from a deliver or a receive instruction (such as DELI or RECE).
Payment	nt or
Settlement	
Financial Instrument Ide	Financial instrument representing a sum of rights of the investor vis-a-vis the issuer
Settlem	
Safekee	
Securiti Typ	
Deliveri Par	
Receiving Settlement Parties	Identifies the chain of receiving settlement parties (such as BIC).
Debtor and/or Debtor Agent	Party that owes an amount of money to the (ultimate) creditor (such as BIC). Debtor Agent (Financial institution servicing an account for the debtor)
Creditor and/or Creditor Agent	Party to which an amount of money is due (such as BIC). Creditor Agent (Financial institution servicing an account for the creditor)
Settlement Amount	Total amount of securities to be paid or received in exchange for the securities (amount of money in the cash entry).
Credit Debit Indicator	Indicate an entry is a credit or debit (such as CREDIT or DEBIT)

Message items need to be revised.

For example:

1. **RTGS system for cash settlement needs to be specified.**
2. **Identification linking securities settlement and cash settlement needs to be specified.**

Fit and Gap Analysis
Issues related ID



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ISO 20022 messages and/or message items to fit cross-currency DVP (repo) need to be specified

Business Justifications (BJ) and/or Change Requests (CR) need to be submitted.

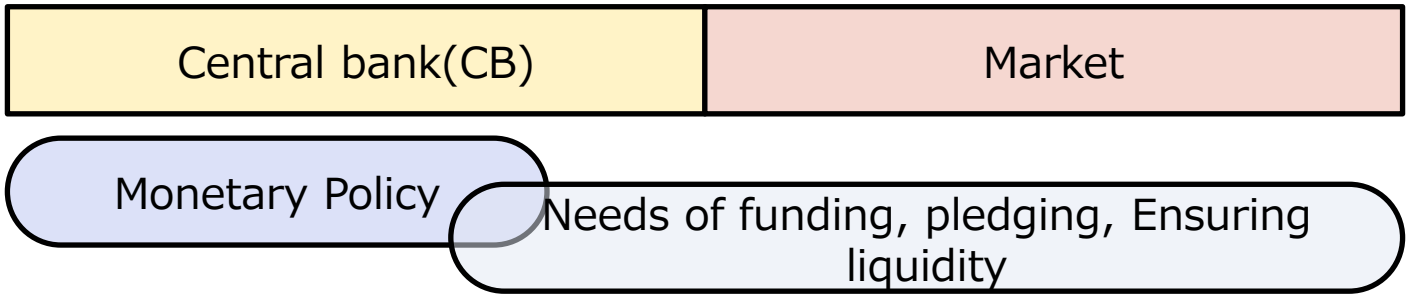
Survey on Cross-border Collateral and Repo Services

1. Supporting Cross-border Collateral and Repo WG
2. Conceptual understanding of collateral and repo business

Conceptual understanding collateral and repo business

There are two major parties in collateral and repo transactions:
One is central bank and the other is market player.

Transactions are categorized based on objectives and counterparties.
Transactions are made on various objectives, i.e., funding, pledging and ensuring liquidities.



	CB	Market
Monetary Policy	・Open-market operations, etc.	
Funding, Pledging, and Ensuring liquidity	・Intraday overdraft etc. pledging as collateral	・GC repo, SC repo, and pledged collateral (CCP, Securities financing)

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Steps of the study: how to proceed

NTT DATA

<Step1> Identify the current market status and extracting Business needs

- Survey will be conducted in the following ways;
  1. Map existing information to understand the current status.
  2. Preliminary questions will be sent to the WG members. If necessary, questions will be sent to wider market participants.
  3. Extract potential needs of CBCR from the survey. The needs can be a wish list of market participants.

<Step2> Defining the business flow

- Based on the needs, business flows to realize the needs will be identified.
- The flows may face various regulatory barriers. These will be identified in detail.
- We will consider CCBM and PVP as models of trading.

<Step3> Definition of the task to realize the flows and mitigating barriers

- Based on the flow, how to tackle the barriers will be considered. Some barriers may be technical and procedural while the other may be linked with policies.
- Merits and demerits of maintaining the barriers will be examined.

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This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

Possible Transaction Flows of BN, KH, LA, and MM

To be revised

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

Brunei Darussalam (BN)

1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Sukuk Al-Ijarah)
3. Bond Transaction Flow for Domestic Trades (Corporate Sukuk Al-Ijarah)
4. Profit & Redemption Payment Flow (Government Sukuk Al-Ijarah)
5. Profit & Redemption Payment Flow (Corporate Sukuk Al-Ijarah)

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram
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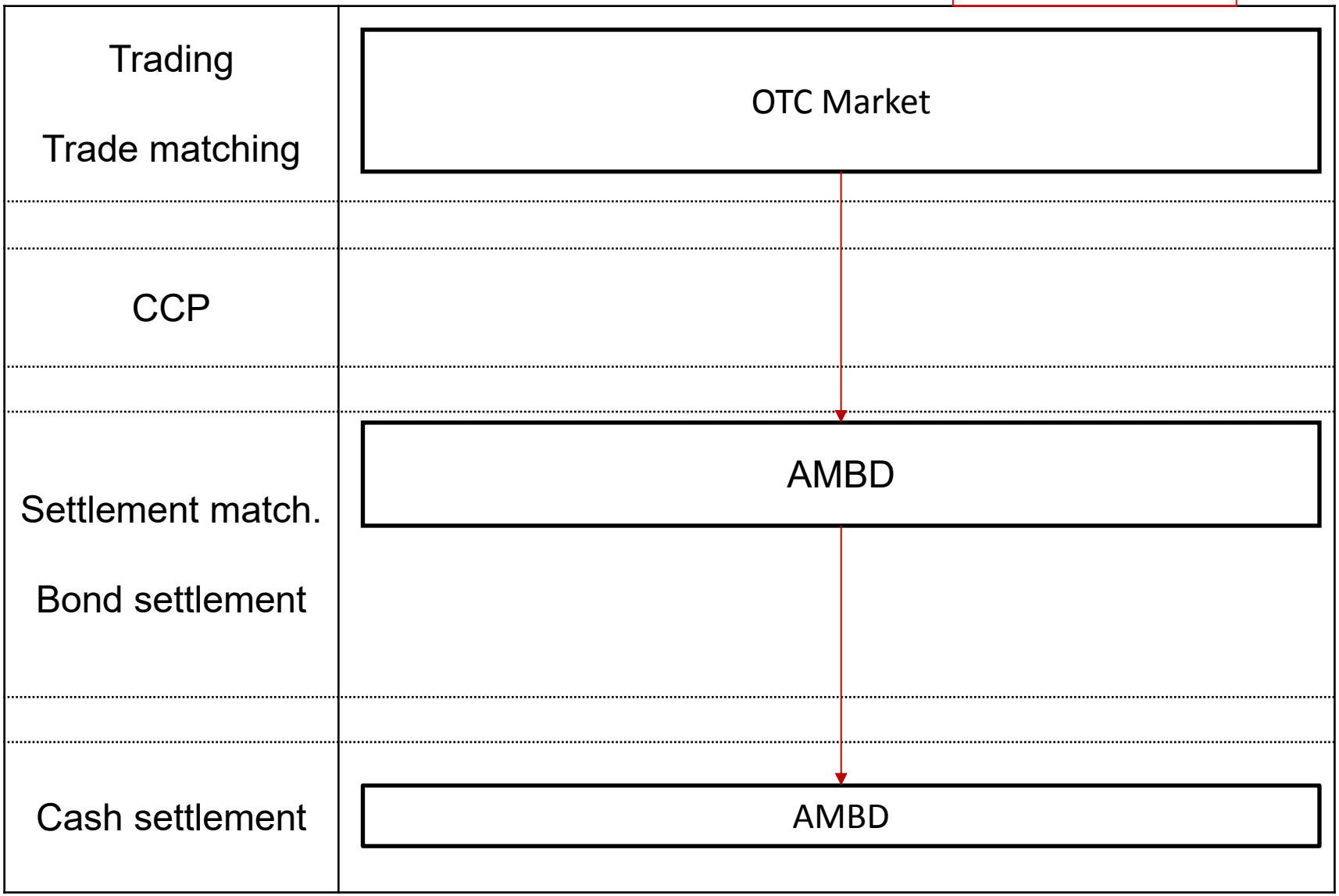
4. Profit & Redemption Payment Flow (Government Sukuk Al-Ijarah)
5. Profit & Redemption Payment Flow (Corporate Sukuk Al-Ijarah)

BN01. Government Bond Market Infrastructure Diagram

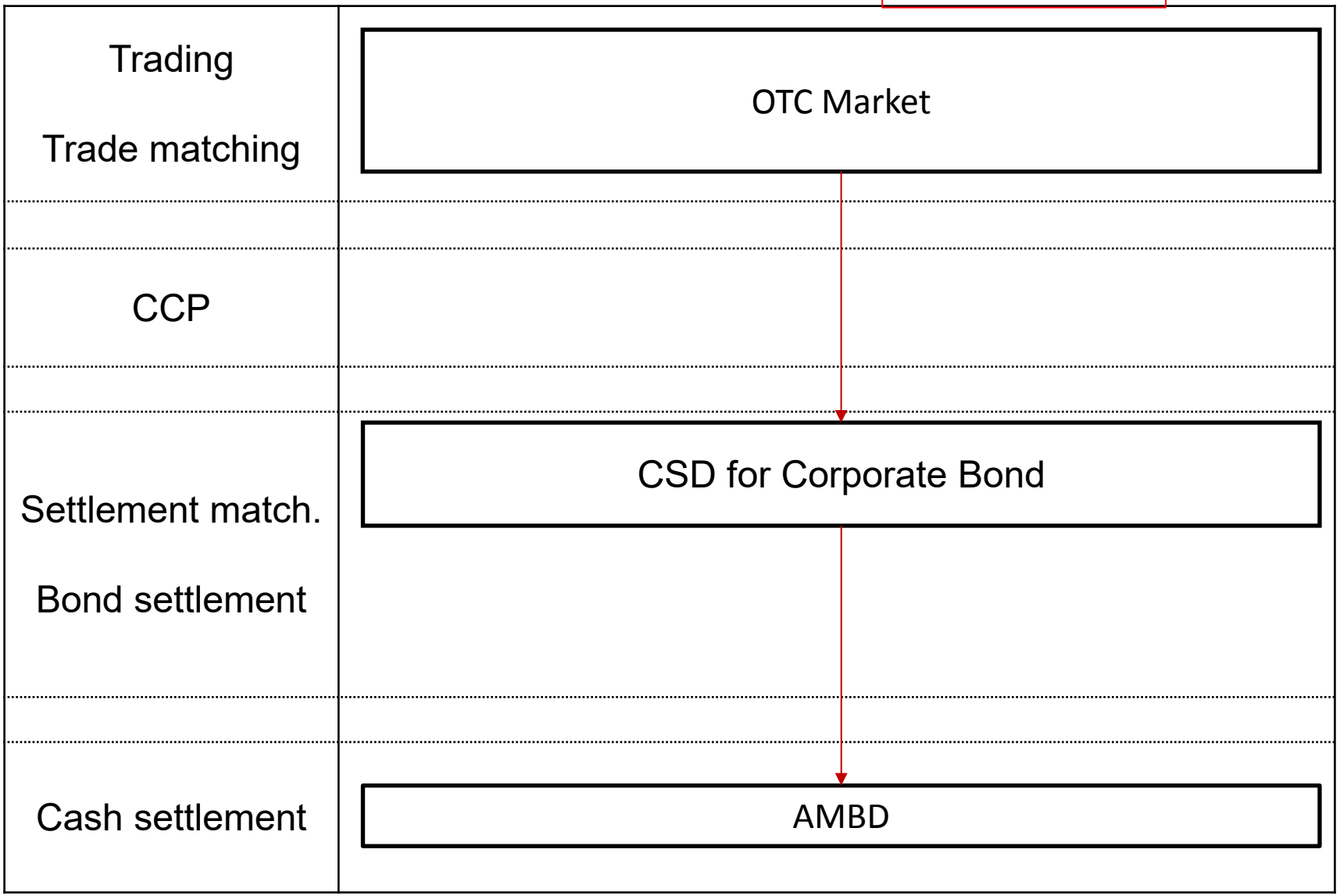
To be confirmed



AMBD: Autoriti Monetari Brunei Darussalam

BN02. Corporate Bond Market Infrastructure Diagram

To be confirmed



AMBD: Autoriti Monetari Brunei Darussalam

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1. Bond Market Infrastructure Diagram
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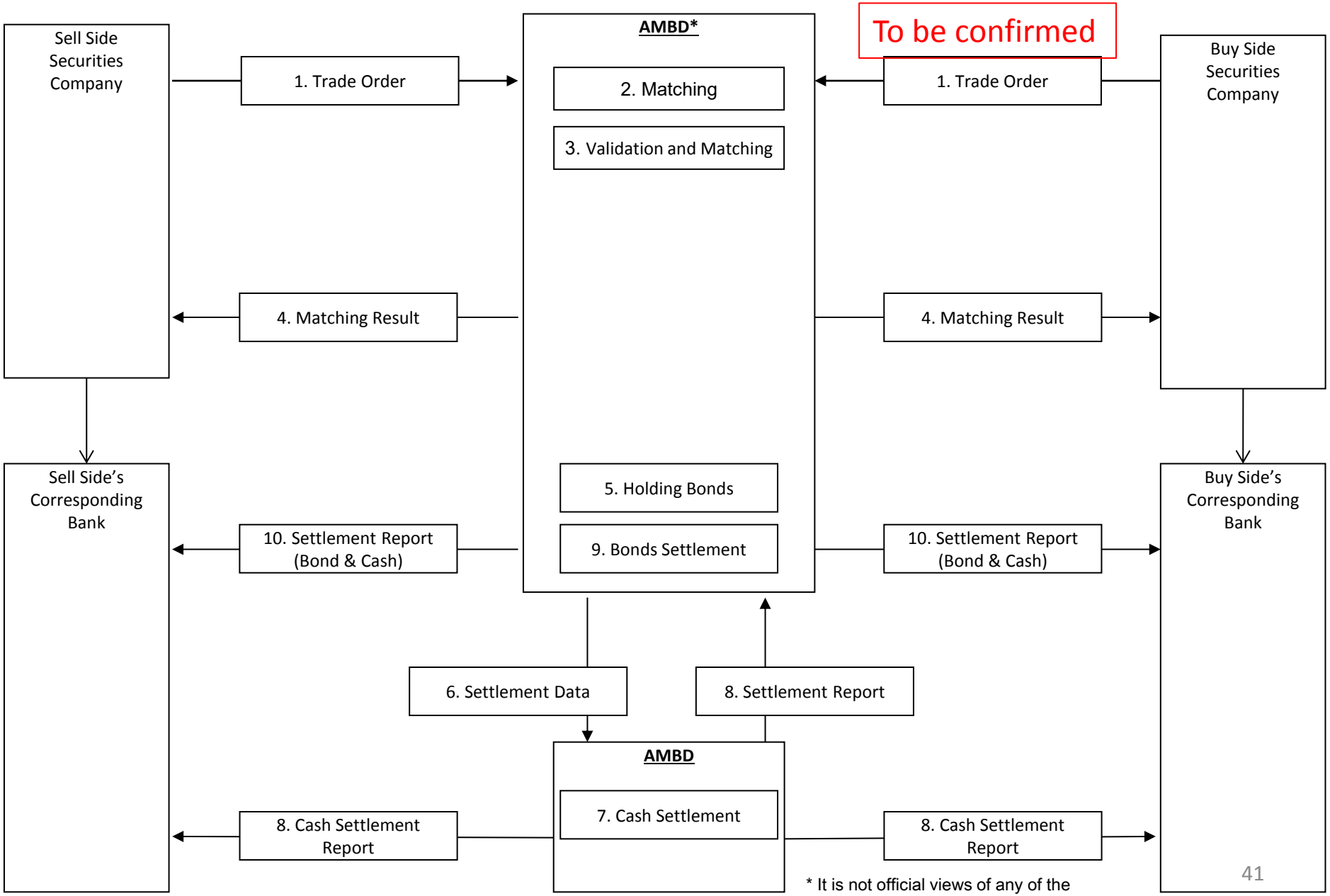
4. Profit & Redemption Payment Flow (Government Sukuk Al-Ijarah)
5. Profit & Redemption Payment Flow (Corporate Sukuk Al-Ijarah)

BN03. Government Bond Transaction Flow for Domestic Trades



* It is not official views of any of the institutions.

BN03. Government Bond Transaction Flow for Domestic Trades

To be confirmed

Exchange Market

1. Sell side and buy side enter trading order into the AMBD as CSD system.
2. AMBD performs matching.
3. AMBD makes trade confirmation.
4. AMBD sends detail of matched results to sell side and buy side.
5. AMBD checks availability and holds securities.
6. AMBD sends settlement data to AMBD automatically via FTP.
7. AMBD executes cash settlement.
8. AMBD notices cash settlement confirmation to AMBD as CSD. AMBD also notices cash settlement confirmation to sell side and buy side.
9. AMBD releases held securities and executes securities delivery.
10. AMBD sends settlement report to sell side and buy side.

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram

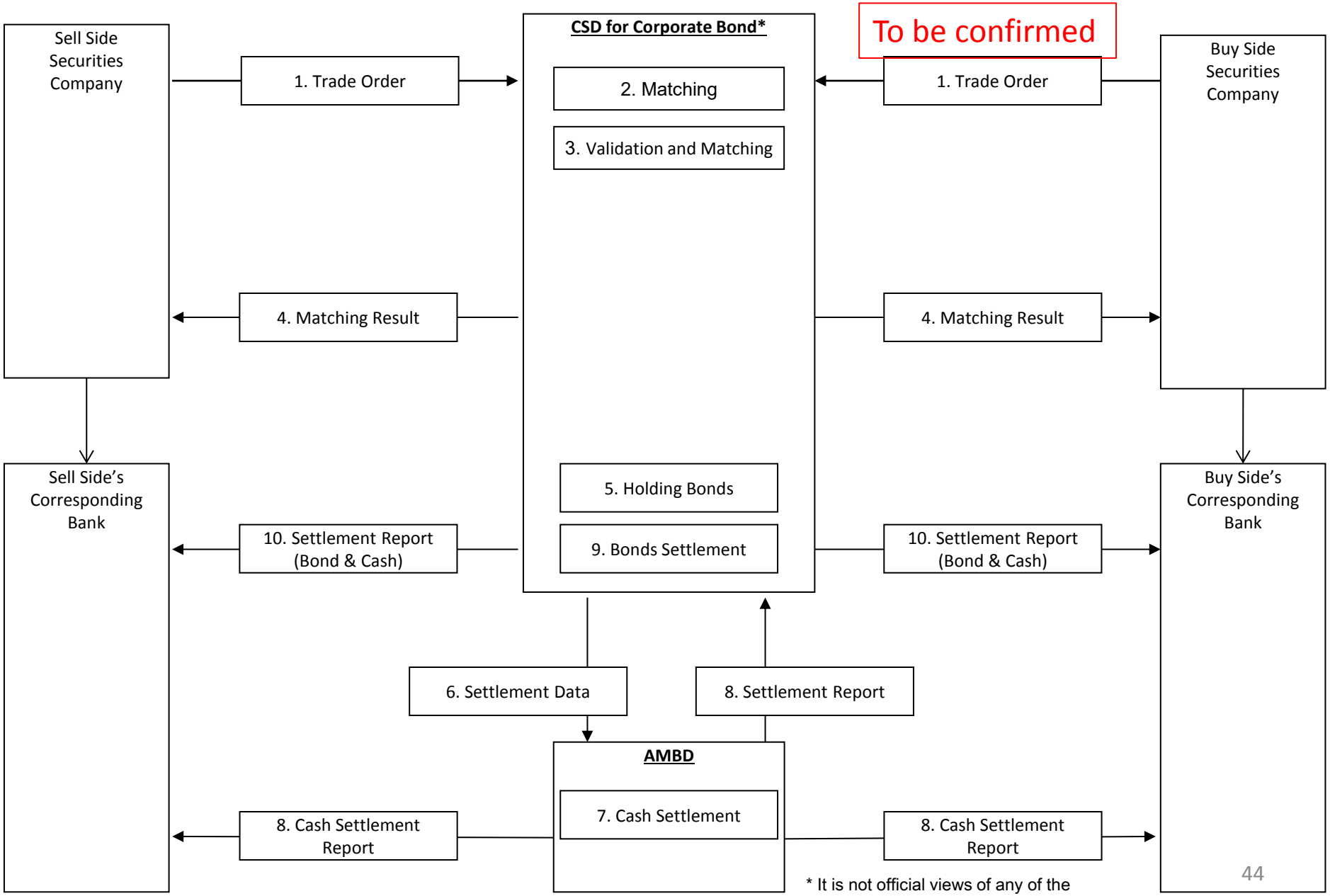
2. Bond Transaction Flow for Domestic Trades (Government Sukuk Al-Ijarah)

3. Bond Transaction Flow for Domestic Trades (Corporate Sukuk Al-Ijarah)

4. Profit & Redemption Payment Flow (Government Sukuk Al-Ijarah)

5. Profit & Redemption Payment Flow (Corporate Sukuk Al-Ijarah)

BN04. Corporate Bond Transaction Flow for Domestic Trades



* It is not official views of any of the institutions.

BN Corporate Bond Transaction Flow for Domestic Trades

To be confirmed

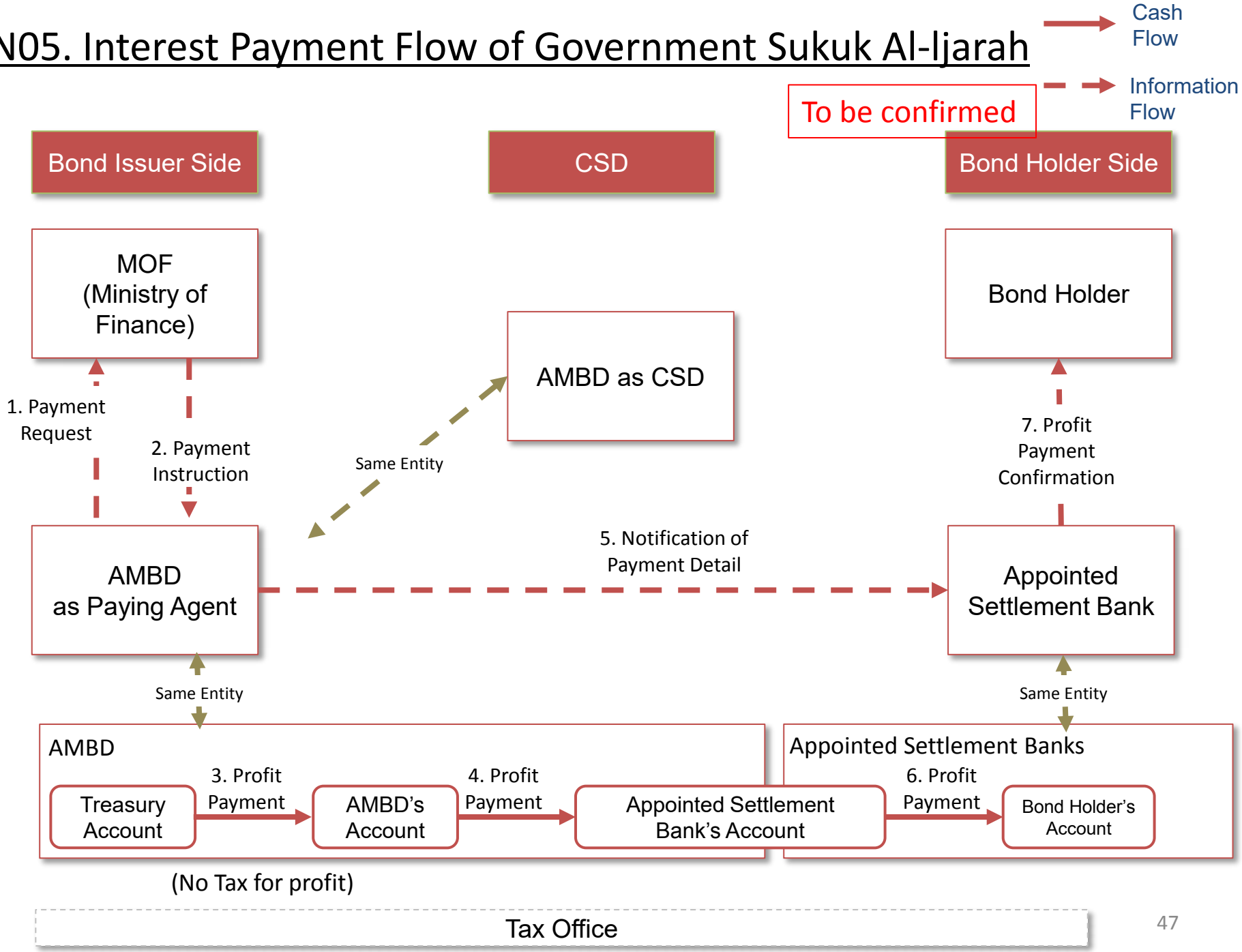
Exchange Market

1. Sell side and buy side enter trading order into the CSD for Corporate Bond system.
2. CSD for Corporate Bond performs matching.
3. CSD for Corporate Bond makes matching.
4. CSD for Corporate Bond sends detail of matched results to sell side and buy side.
5. CSD for Corporate Bond checks availability and holds securities.
6. CSD for Corporate Bond sends cash settlement information to RTGS.
7. AMBD (RTGS) system executes cash settlement.
8. AMBD notices cash settlement confirmation to CSD for Corporate Bond. AMBD also notices cash settlement confirmation to sell side and buy side corresponding banks.
9. AMBD releases held securities and executes securities delivery.
10. CSD for Corporate Bond sends settlement report to sell side and buy side.

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Sukuk Al-Ijarah)
3. Bond Transaction Flow for Domestic Trades (Corporate Sukuk Al-Ijarah)
4. Profit & Redemption Payment Flow (Government Sukuk Al-Ijarah)
5. Profit & Redemption Payment Flow (Corporate Sukuk Al-Ijarah)

BN05. Interest Payment Flow of Government Sukuk Al-Ijarah

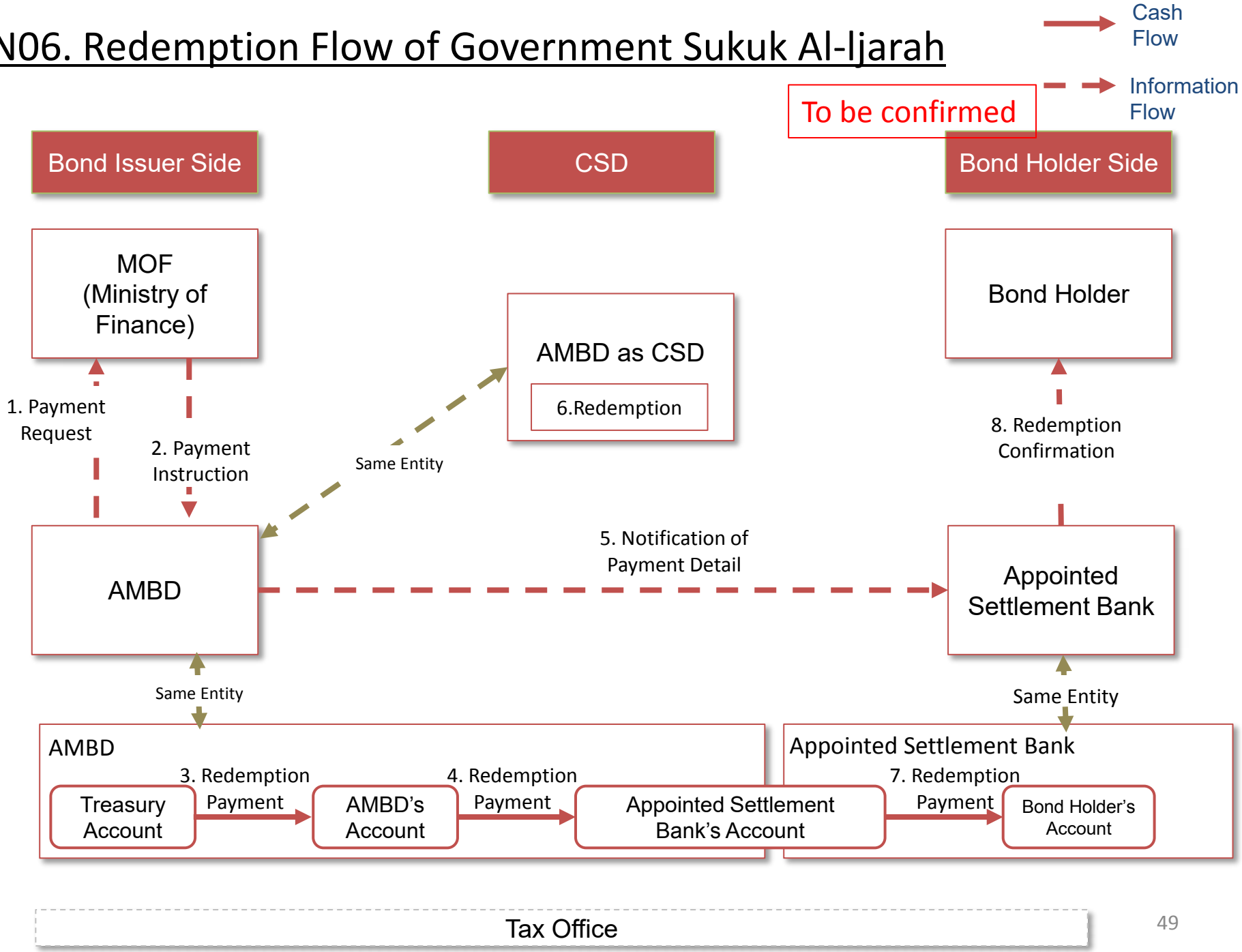


BN Profit Payment Flow of Government Sukuk Al-Ijarah

Process of Interest Payment

1. MOF provides order of debit to AMBD in advance of profit payment date.
2. MOF instructs AMBD to make profit payment.
3. On payment date, AMBD debits profit payment amount from Treasury Account following order of debit by MOF and credit it to it's own account.
4. AMBD transfers cash for profit payment to commercial bank's account.
5. AMBD sends notification for profit payment to commercial bank.
6. Commercial bank credits profit amount to its client's account in the case that bond is held by bond holder.
7. Commercial bank notifies bond holders of profit payment.

BN06. Redemption Flow of Government Sukuk Al-Ijarah



BN Redemption Payment Flow of Government Sukuk Al-Ijarah

To be confirmed

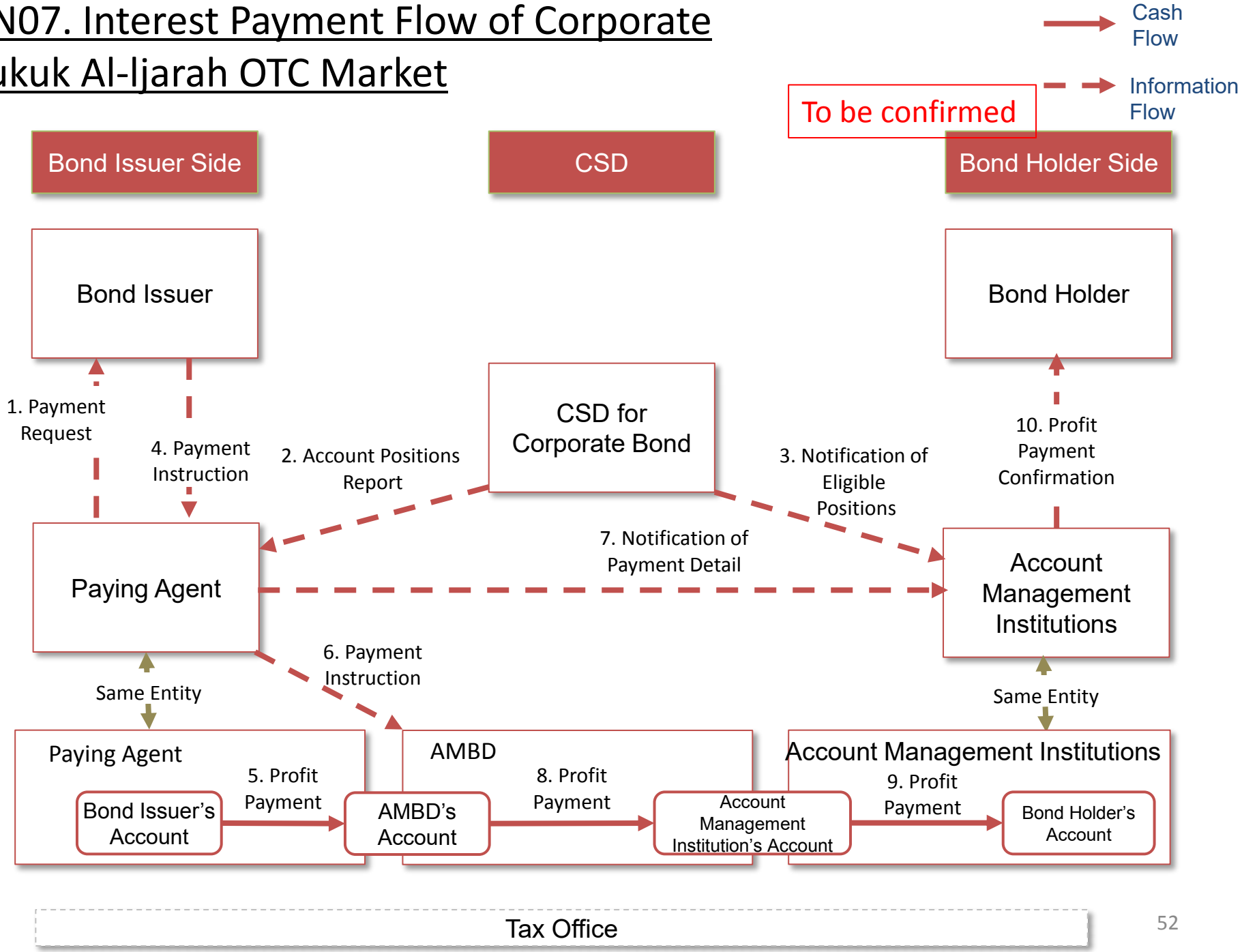
Process of Redemption Payment

1. MOF provides order of debit to AMBD in advance of redemption due date.
2. MOF instructs AMBD to make redemption payment.
3. On due date, AMBD debits redemption payment amount from Treasury Account following order of debit by MOF and credit it to it's own account.
4. AMBD transfers cash for redemption to Appointed Settlement Bank's account.
5. AMBD sends notification for redemption to Appointed Settlement Bank.
6. AMBD makes bond redemption.
7. Appointed Settlement Bank credits redemption payment to its client's account in the case that bond is held by bond holder.
8. Appointed Settlement Bank notifies bond holders of redemption.

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Sukuk Al-Ijarah)
3. Bond Transaction Flow for Domestic Trades (Corporate Sukuk Al-Ijarah)
4. Profit & Redemption Payment Flow (Government Sukuk Al-Ijarah)
5. Profit & Redemption Payment Flow (Corporate Sukuk Al-Ijarah)

BN07. Interest Payment Flow of Corporate Sukuk Al-Ijarah OTC Market



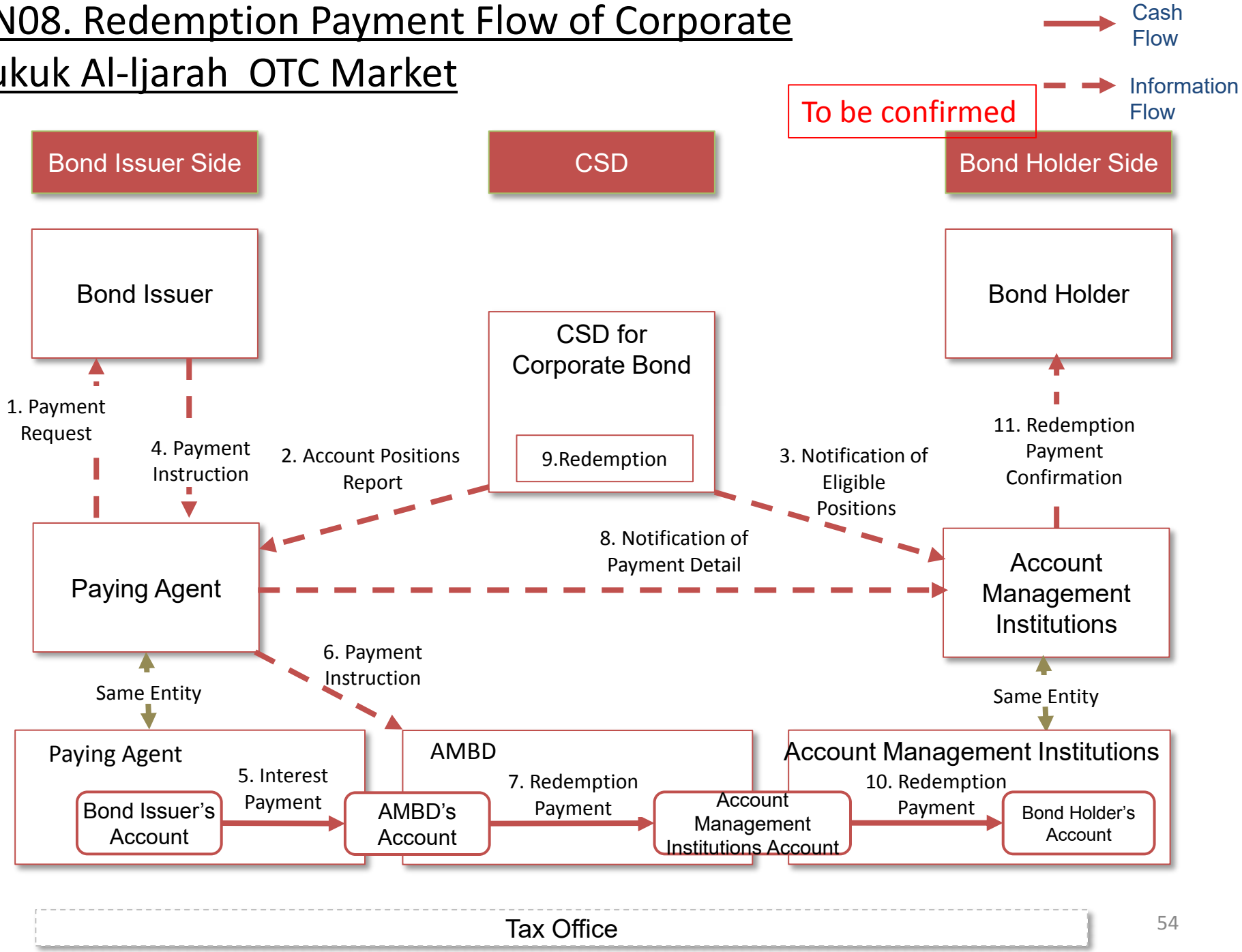
BN Profit Payment Flow of Corporate Sukuk Al-Ijarah

To be confirmed

Process of Interest Payment

1. Paying agent notifies bond issuer of profit payment.
2. Before profit payment date, CSD for Corporate Bond sends Account Positions Report to paying agent.
3. Before profit payment date, CSD for Corporate Bond notification of eligible positions to account management institutions.
4. Bond issuer instructs paying agent to make profit payment.
5. Paying agent transfers cash from issuer's account to it's own account.
6. Paying agent instruct ABMD to pay profit to Account Management Institutions.
7. Paying agent sends notification for profit payment to Account Management Institutions.
8. AMBD transfers the interest proceeds to the account management institutions.
9. Account Management Institutions subsequently pay the profit proceeds to the bond holders.
10. Account Management Institutions notifies bond holders of profit payment.

BN08. Redemption Payment Flow of Corporate Sukuk Al-Ijarah OTC Market



BN Redemption Payment Flow of Government Sukuk Al-Ijarah

To be confirmed

Process of Interest Payment

1. Paying agent notifies bond issuer of redemption payment.
2. Before redemption payment date, CSD for Corporate Bond sends Account Positions Report to paying agent.
3. Before redemption payment date, CSD for Corporate Bond sends notification of eligible positions to account management institutions.
4. Bond issuer instructs paying agent to make redemption payment.
5. Paying agent transfers cash from issuer's account to it's own account.
6. Paying agent instruct AMBD to pay last interest and principal to Account Management Institutions.
7. On redemption payment date, the AMBD transfers the interest proceeds to the account management institutions.
8. Paying Agent sends notification for redemption to Account Management Institutions.
9. CSD for Corporate Bond carries out redemption.
10. CSD for Corporate Bond members subsequently pay the interest proceeds to the bond holders.
11. Account Management Institutions notify bond holders of redemption payment.

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

Cambodia (KH)

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)

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram

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

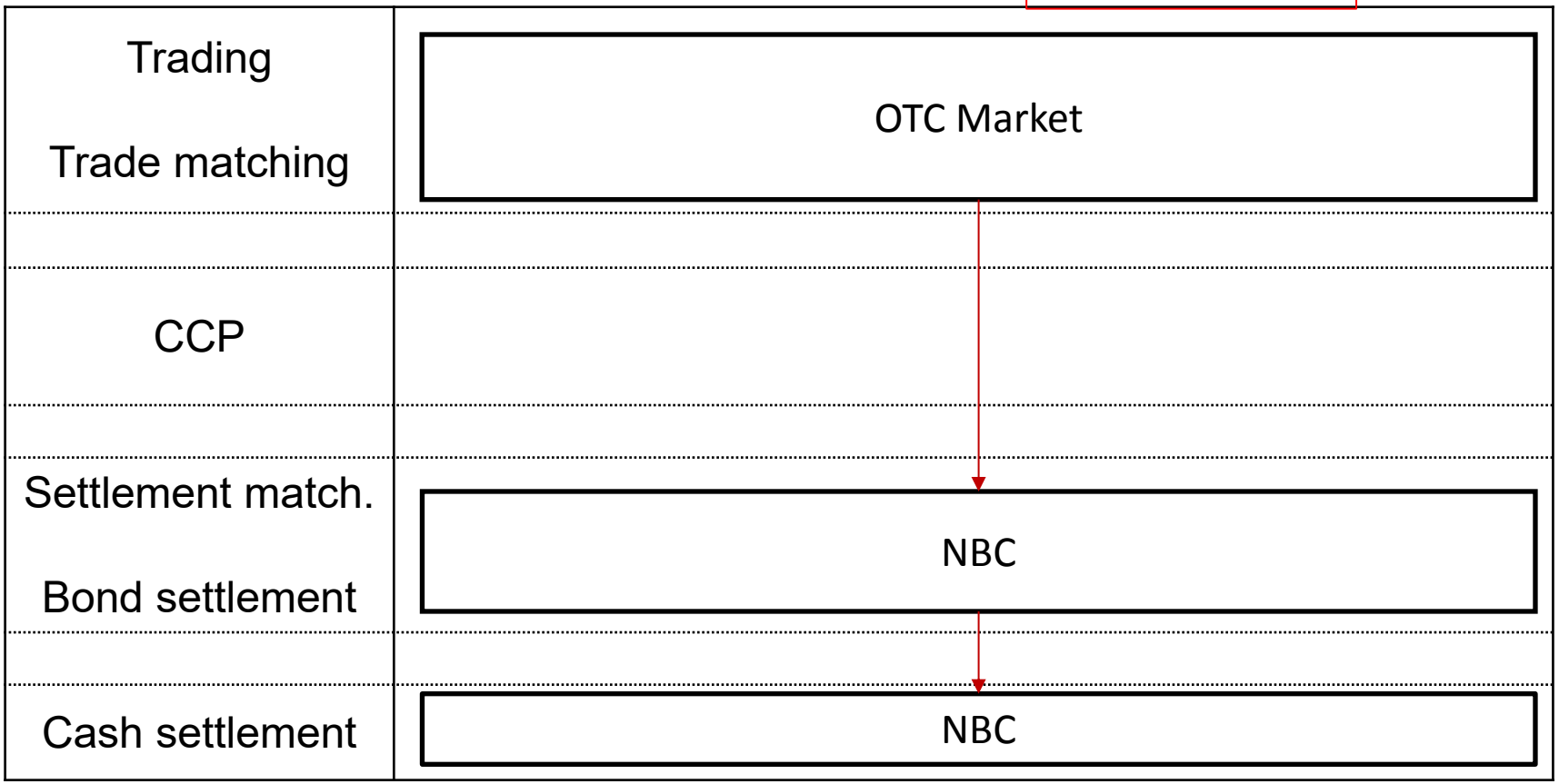
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

KH01. Government Bond Market Infrastructure Diagram

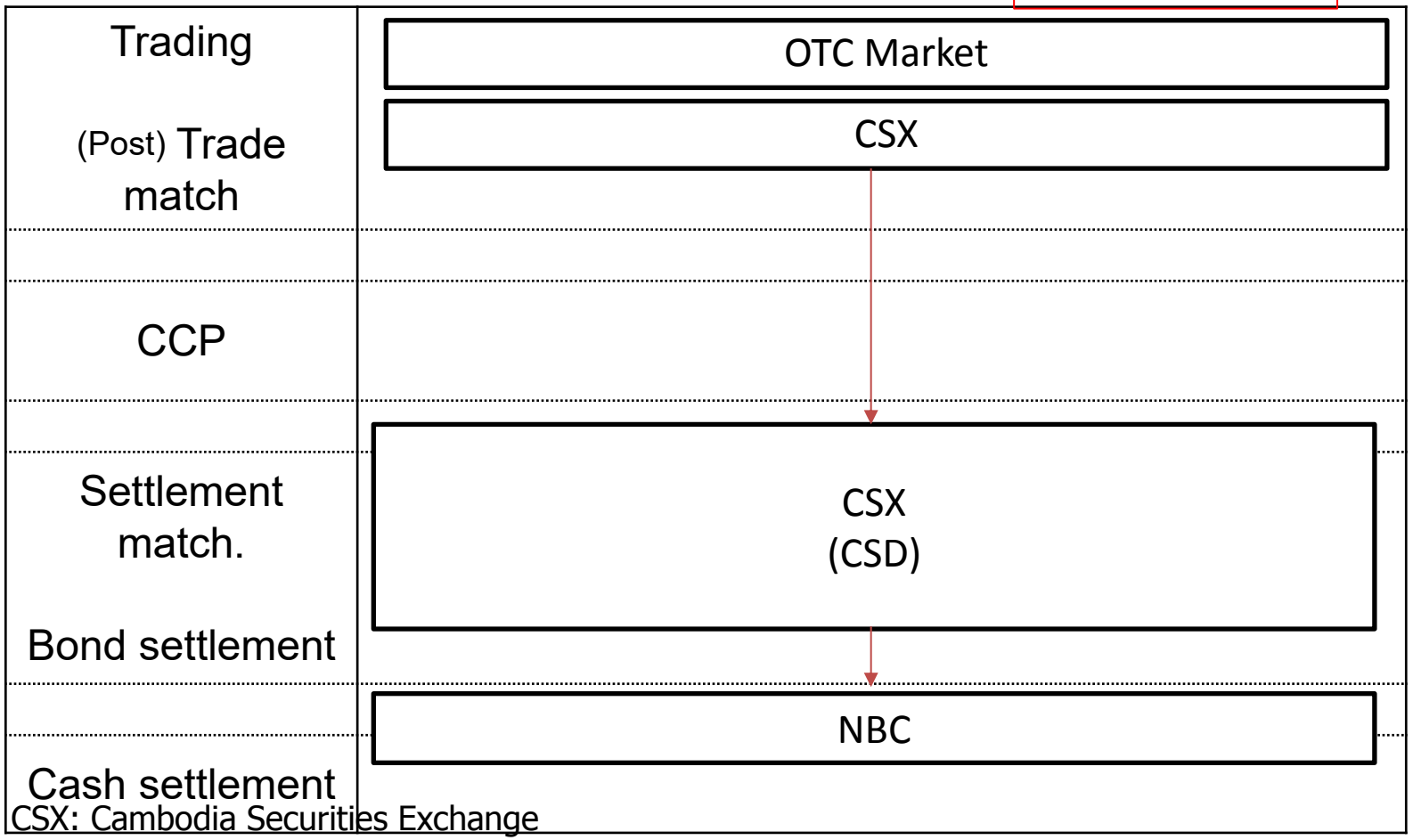
To be confirmed



NBC: National Bank of Cambodia
BES: Book Entry System

KH02. Corporate Bond Market Infrastructure Diagram

To be confirmed



CSX: Cambodia Securities Exchange
NBC: National Bank of Cambodia
CSD: Cambodian Securities Depository

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram

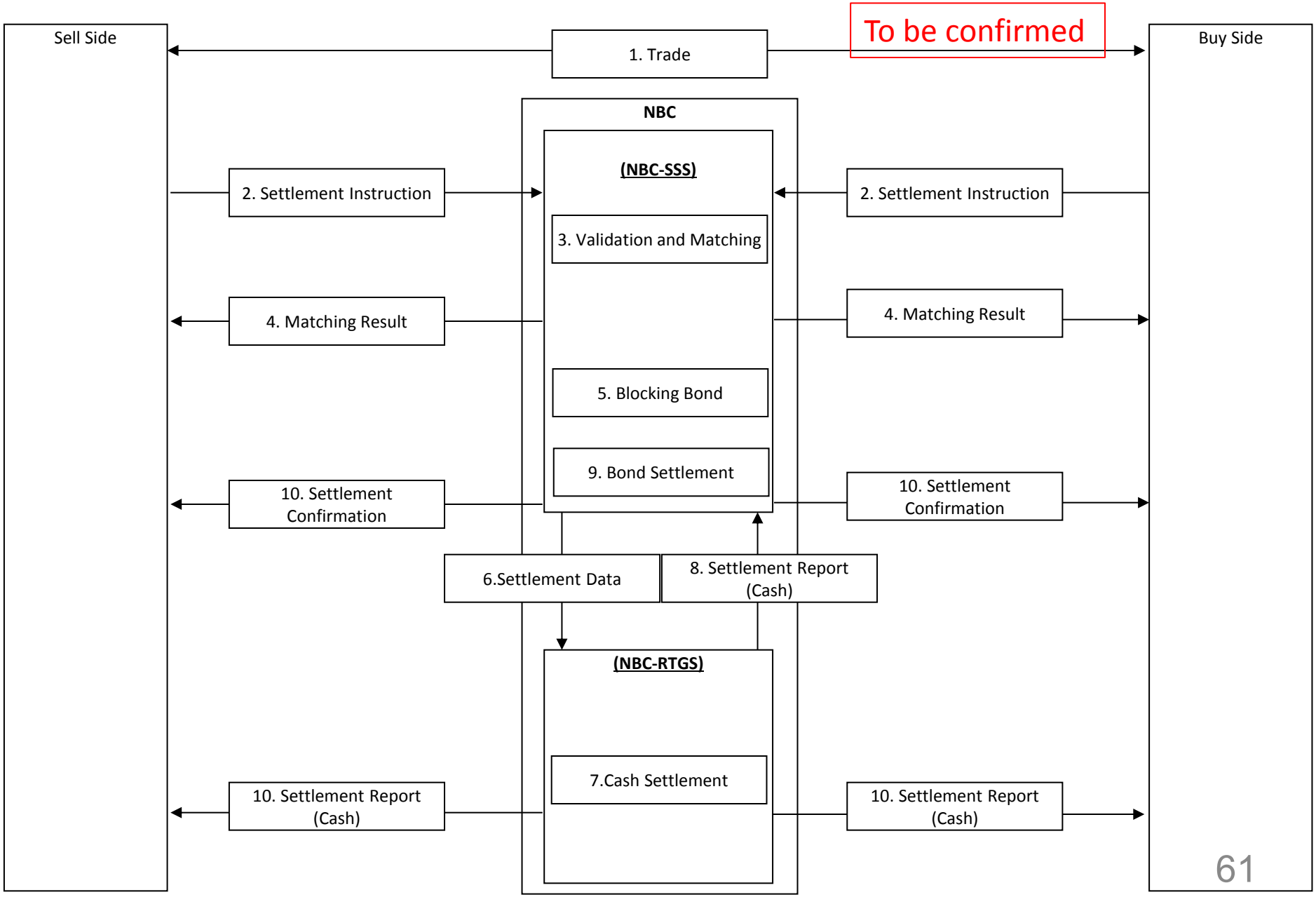
2. Bond Transaction Flow for Domestic Trades (Government Bond)

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

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

KH03. Government Bond Transaction Flow for Domestic Trades



KH Government Bond Transaction Flow for Domestic Trades

To be confirmed

OTC Market

1. Sell side and buy side trade over the counter.
2. Sell side and buy side send instructions to National Bank of Cambodia Securities Settlement System (NBC-SSS).
3. NBC-SSS performs validation and matching.
4. NBC-SSS sends matching results to the sell side and buy side.
5. NBC-SSS blocks the bond.
6. NBC-SSS sends cash settlement data to NBC-RTGS.
7. NBC-RTGS executes cash settlement. NBC-RTGS debits the buy sides' RTGS account.
8. NBC-RTGS sends cash settlement report to NBC-SSS.
9. NBC-SSS executes bond settlement.
10. NBC-RTGS sends cash settlement report to the buy side and sell side respectively, while NBC-SSS sends securities settlement confirmation to the sell side and buy side.

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram

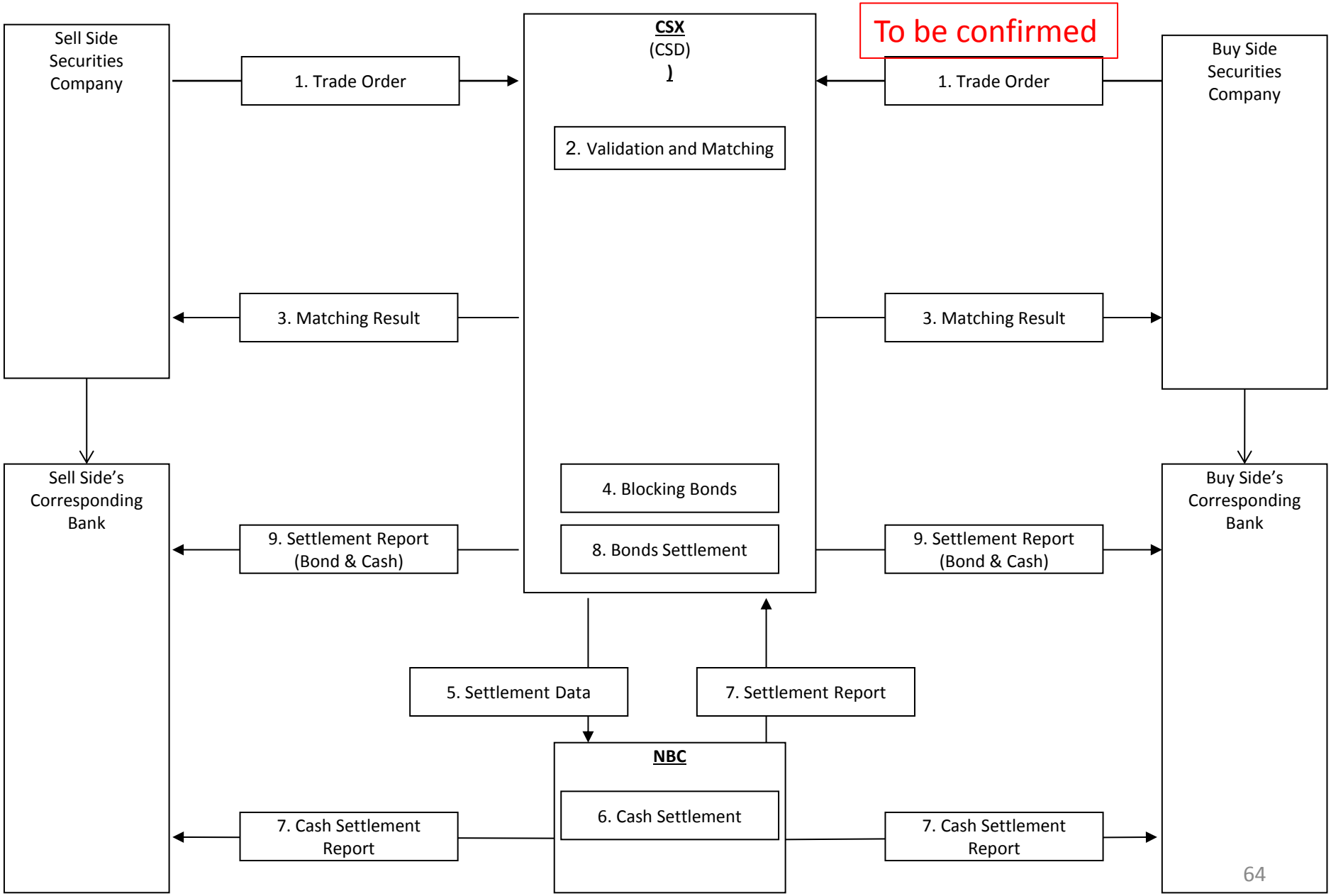
2. Bond Transaction Flow for Domestic Trades (Government Bond

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

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

KH04. Corporate Bond Transaction Flow for Domestic Trades



KH Corporate Bond Transaction Flow for Domestic Trades

To be confirmed

Exchange Market

1. Sell side and buy side enter trading order into the CSX trading system.
2. CSX performs matching.
3. CSX sends matched results to sell side and buy side.
4. CSX checks availability and blocks securities.
5. CSX sends cash settlement data to NBC.
6. NBC executes cash settlement.
7. NBC notices cash settlement confirmation to CSX. NBC also notices cash settlement confirmation to sell side and buy side corresponding banks.
8. CSX releases held securities and executes securities delivery.
9. CSX sends settlement report to sell side and buy side.

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram

2. Bond Transaction Flow for Domestic Trades (Government Bond

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

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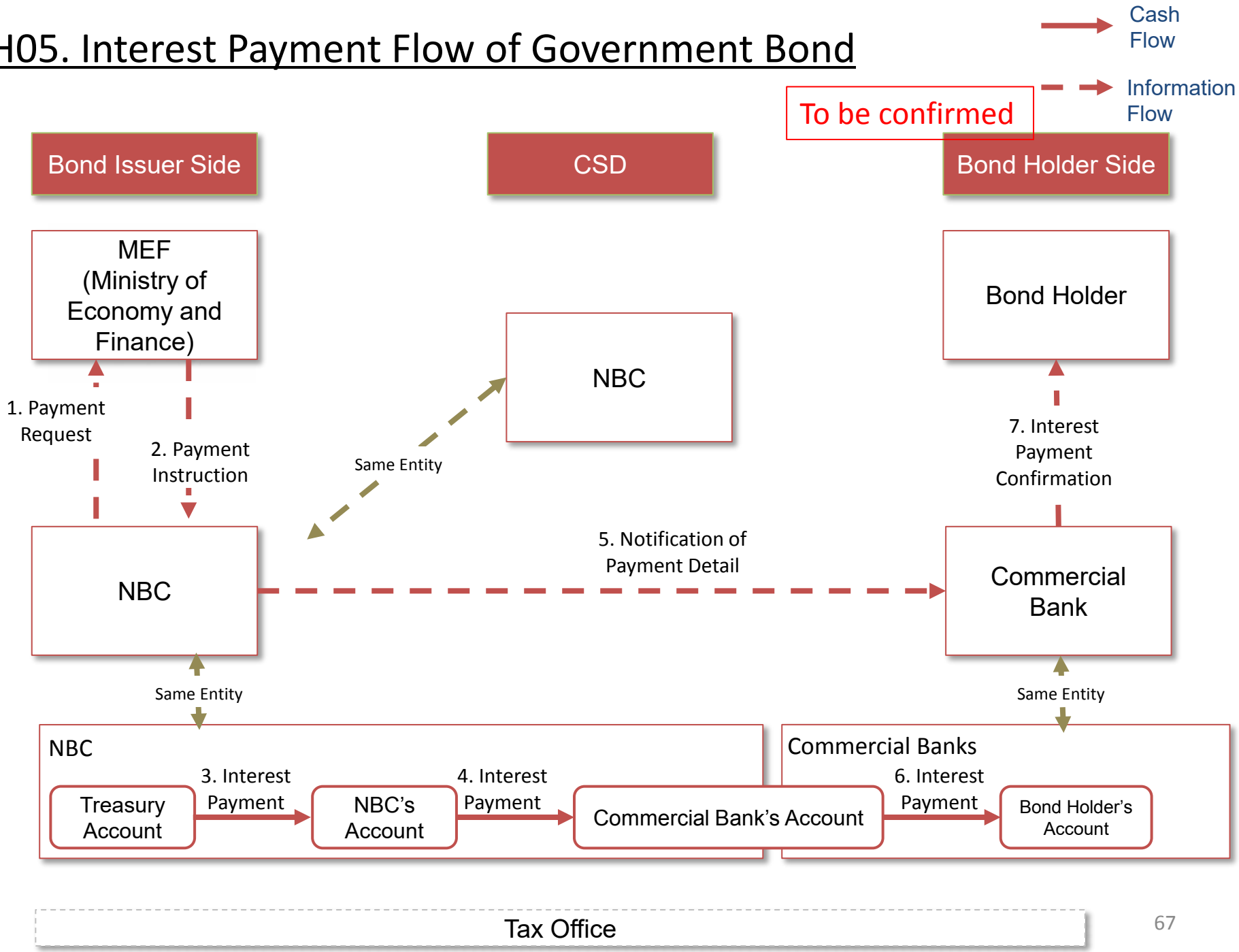
5. Interest & Redemption Payment Flow (Corporate Bond)

KH05. Interest Payment Flow of Government Bond



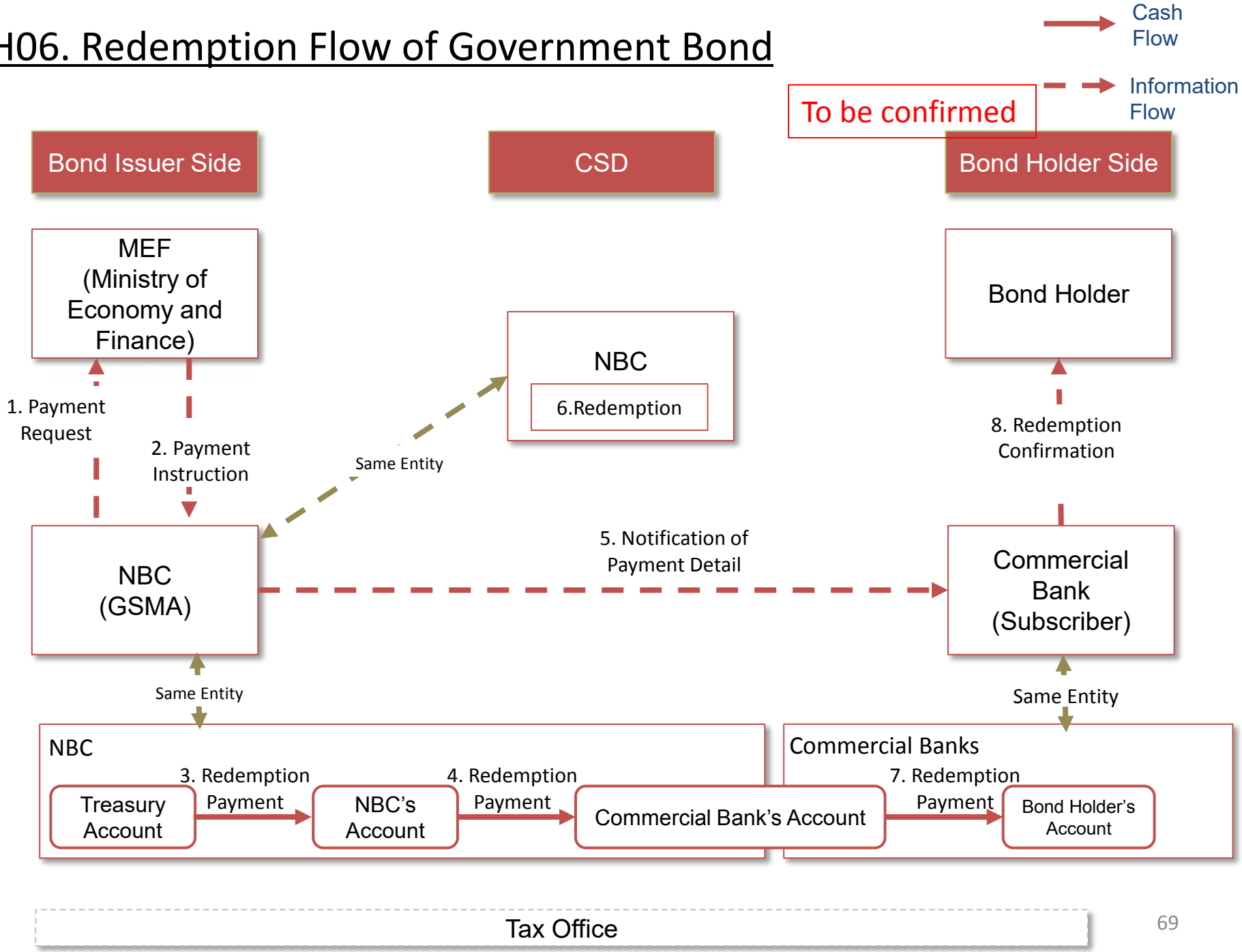
KH Interest Payment Flow of Government Bond

To be confirmed

Process of Interest Payment

1. MEF provides order of debit to NBC in advance of interest payment date.
2. MEF instructs NBC to make interest payment.
3. On payment date, NBC debits interest payment amount from Treasury Account following order of debit by MEF and credit it to it's own account.
4. NBC transfers cash for interest payment to commercial bank's account via NBC Clearing House.
5. NBC sends notification for interest payment to commercial bank.
6. Commercial bank credits interest amount to its client's account in the case that bond is held by bond holder.
7. Commercial bank notifies bond holders of interest payment.

KH06. Redemption Flow of Government Bond



KH Redemption Payment Flow of Government Bond

To be confirmed

Process of Redemption Payment

1. MEF provides order of debit to NBC in advance of redemption due date.
2. MEF instructs NBC to make redemption payment.
3. On due date, NBC debits redemption payment amount from Treasury Account following order of debit by MEF and credit it to it's own account.
4. NBC transfers cash for redemption to commercial bank's account via NBC Clearing House.
5. NBC sends notification for redemption to commercial bank.
6. NBC makes bond redemption.
7. Commercial bank credits redemption payment to its client's account in the case that bond is held by bond holder.
8. Commercial bank notifies bond holders of redemption.

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram

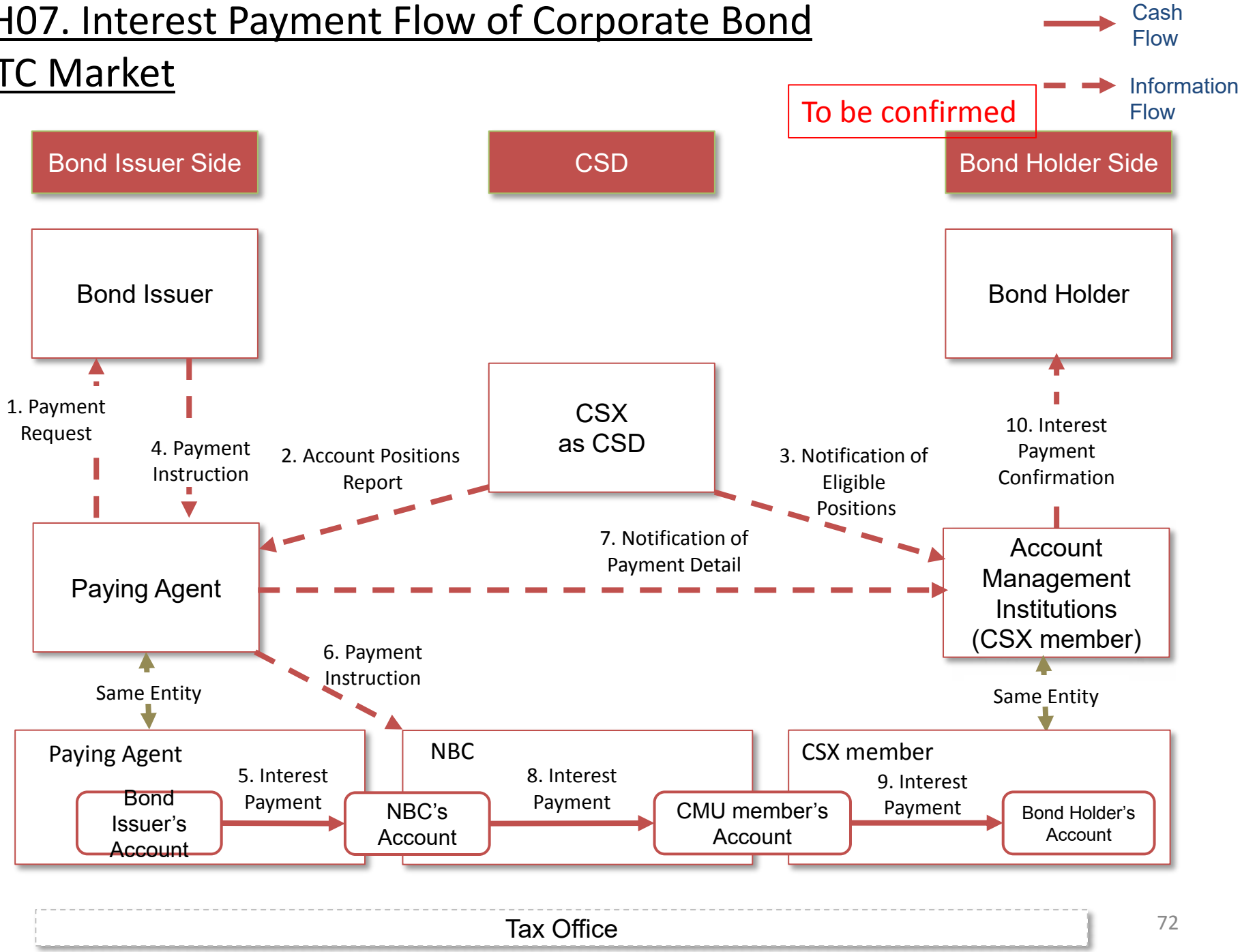
2. Bond Transaction Flow for Domestic Trades (Government Bond

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

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

KH07. Interest Payment Flow of Corporate Bond OTC Market



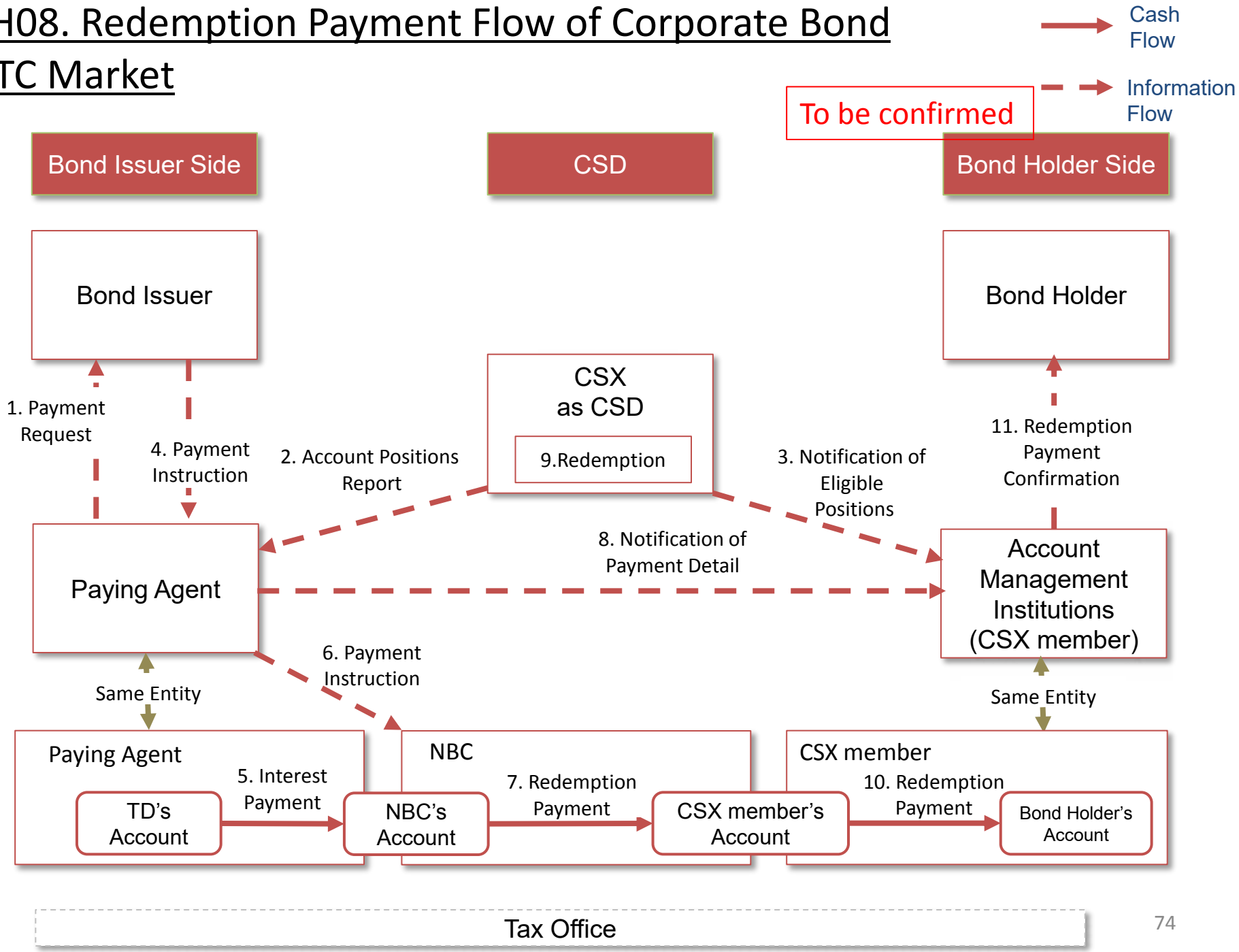
KH Interest Payment Flow of Corporate Bond

To be confirmed

Process of Interest Payment

1. Paying agent notifies bond issuer of interest payment.
2. Before interest payment date, CSX sends Account Positions Report to paying agent.
3. Before interest payment date, CSX sends notification of eligible positions to account management institutions (CSX Members).
4. 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 NBC to pay interest to CSX members.
7. Paying agent sends notification for interest payment to Account Management Institutions (CSX Members).
8. NBC transfers the interest proceeds to the Account Management Institutions (CSX Members).
9. CSX members subsequently pay the interest proceeds to the bond holders.
10. CSX members notifies bond holders of interest payment.

KH08. Redemption Payment Flow of Corporate Bond OTC Market



KH Redemption Payment Flow of Government Bond

To be confirmed

Process of Interest Payment

1. Paying agent notifies bond issuer of redemption payment.
2. Before redemption payment date, CSX sends Account Positions Report to paying agent.
3. Before redemption payment date, CSX sends notification of eligible positions to account management institutions (CSX Members).
4. 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 instruct NBC to pay last interest and principal to CSX members/
7. NBC transfers the interest proceeds to the account management institutions (CSX Members).
8. Paying Agent sends notification for redemption to Account Management Institutions.
9. CSX as CSD carries out redemption.
10. CSX members subsequently pay the interest proceeds to the bond holders.
11. CSX members notifies bond holders of redemption payment.

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

Lao PDR (LA)

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)

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram

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

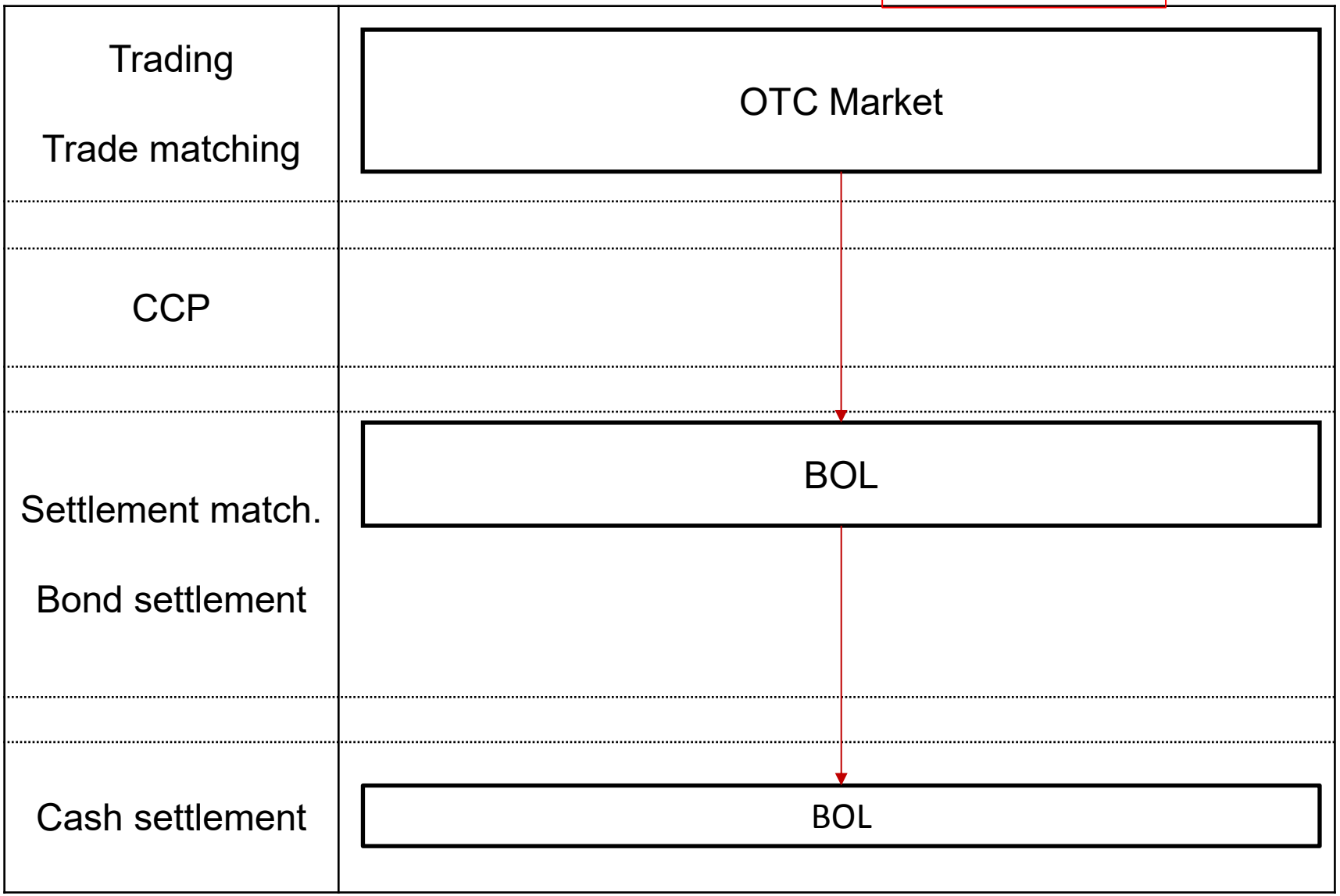
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

LA01. Government Bond Market Infrastructure Diagram

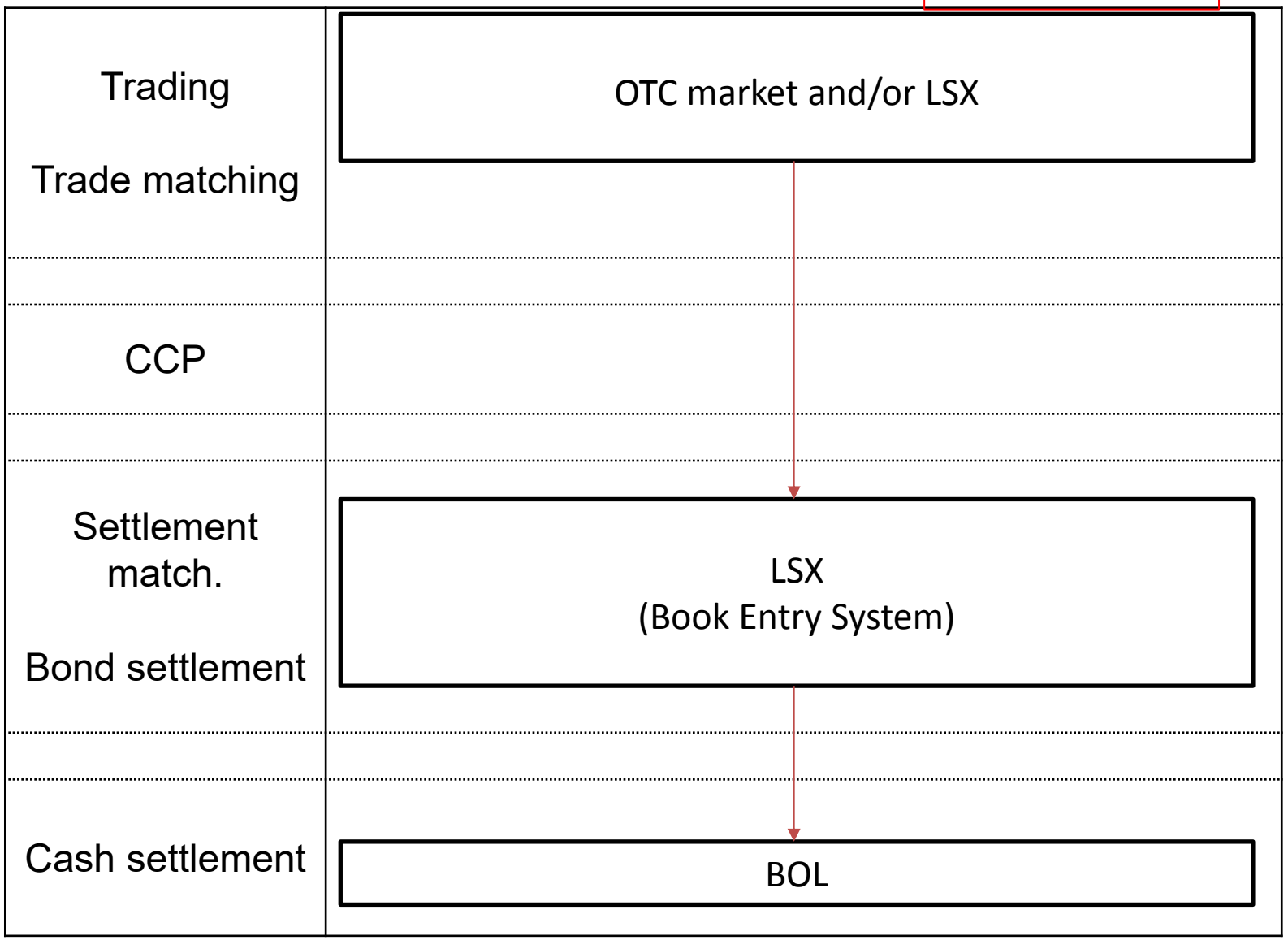
To be confirmed



BOL: Bank of Lao PDR

LA02. Corporate Bond Market Infrastructure Diagram

To be confirmed



LSX: Lao Securities Exchange
BOL : Bank of Lao PDR

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram

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

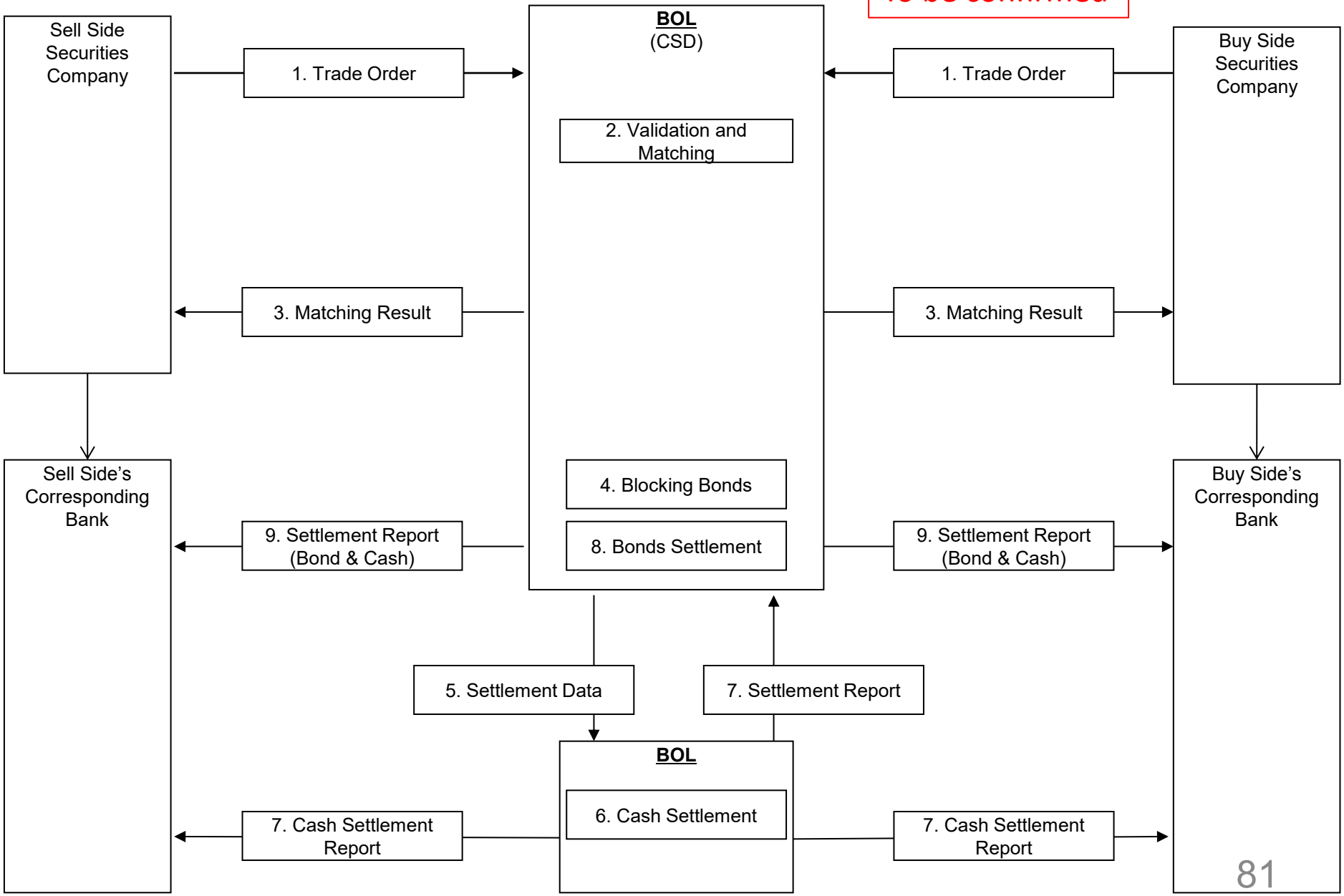
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

LA03. Government Bond Transaction Flow for Domestic Trades

To be confirmed



LA03. Government Bond Transaction Flow for Domestic Trades

To be confirmed

OTC Market

1. Sell side and buy side enter trading order into the BOL securities settlement system (SSS).
2. BOL SSS performs matching.
3. BOL SSS sends matched results to sell side and buy side.
4. BOLSSS checks availability and blocks securities.
5. BOL SSS sends settlement data to BOL RTGS system.
6. BOL RTGS executes cash settlement.
7. BOL RTGS notices cash settlement confirmation to BOS SSS. BOL RTGS also notices cash settlement confirmation to sell side and buy side.
8. BOL SSS releases blocked securities and executes securities delivery.
9. BOL SSS sends settlement report to sell side and buy side.

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram

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

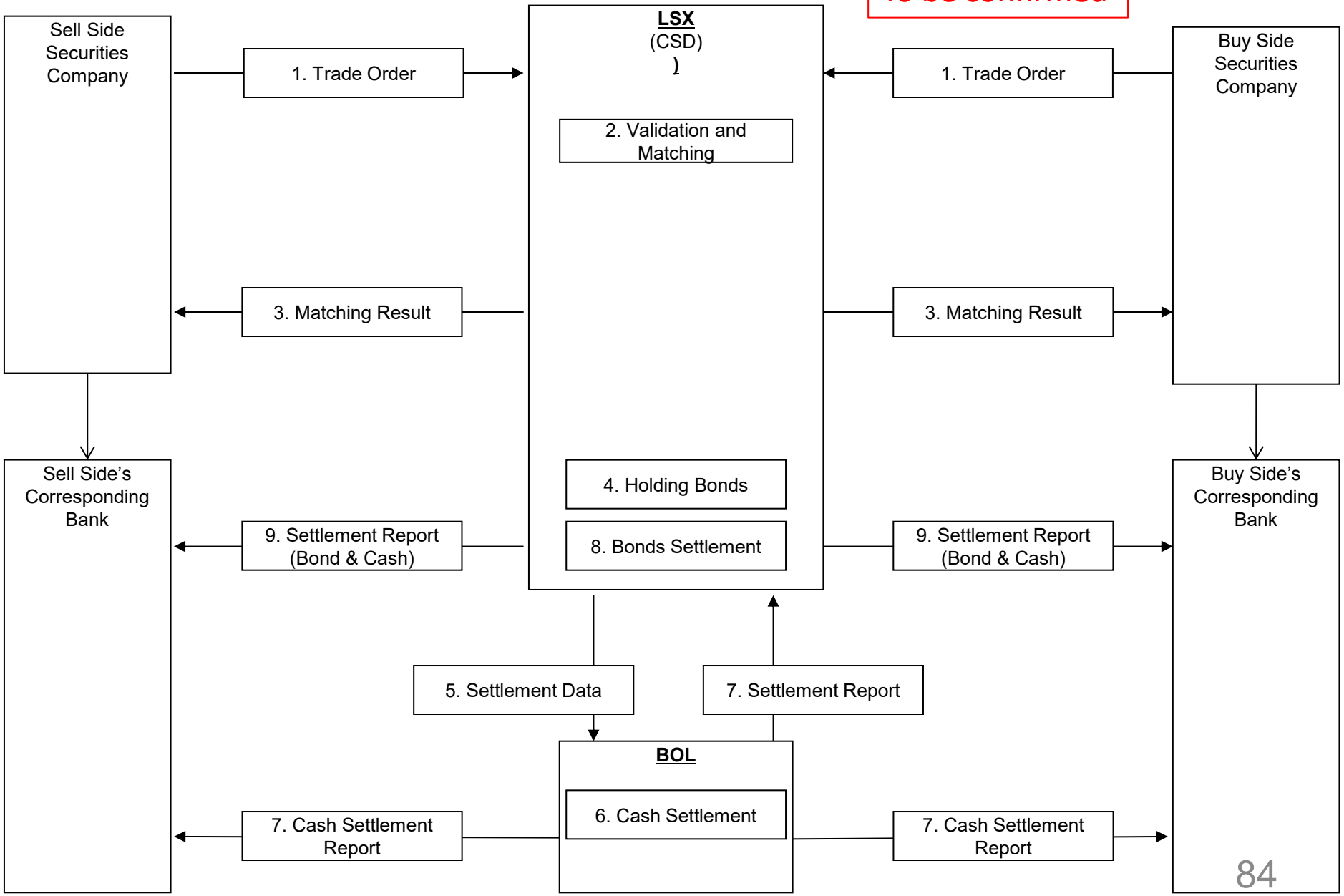
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

LA04. Corporate Bond Transaction Flow for Domestic Trades

To be confirmed



LA Corporate Bond Transaction Flow for Domestic Trades

To be confirmed

Exchange Market

1. Sell side and buy side enter trading order into the LSX system.
2. LSX performs matching.
3. LSX sends matched results to sell side and buy side.
4. LSX checks availability and blocks securities.
5. LSX sends settlement data to BOL.
6. BOL executes cash settlement.
7. BOL notifies cash settlement confirmation to LSX. BOL also notifies cash settlement confirmation to sell side and buy side.
8. LSX releases blocked securities and executes securities delivery.
9. LSX sends settlement report to sell side and buy side.

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram

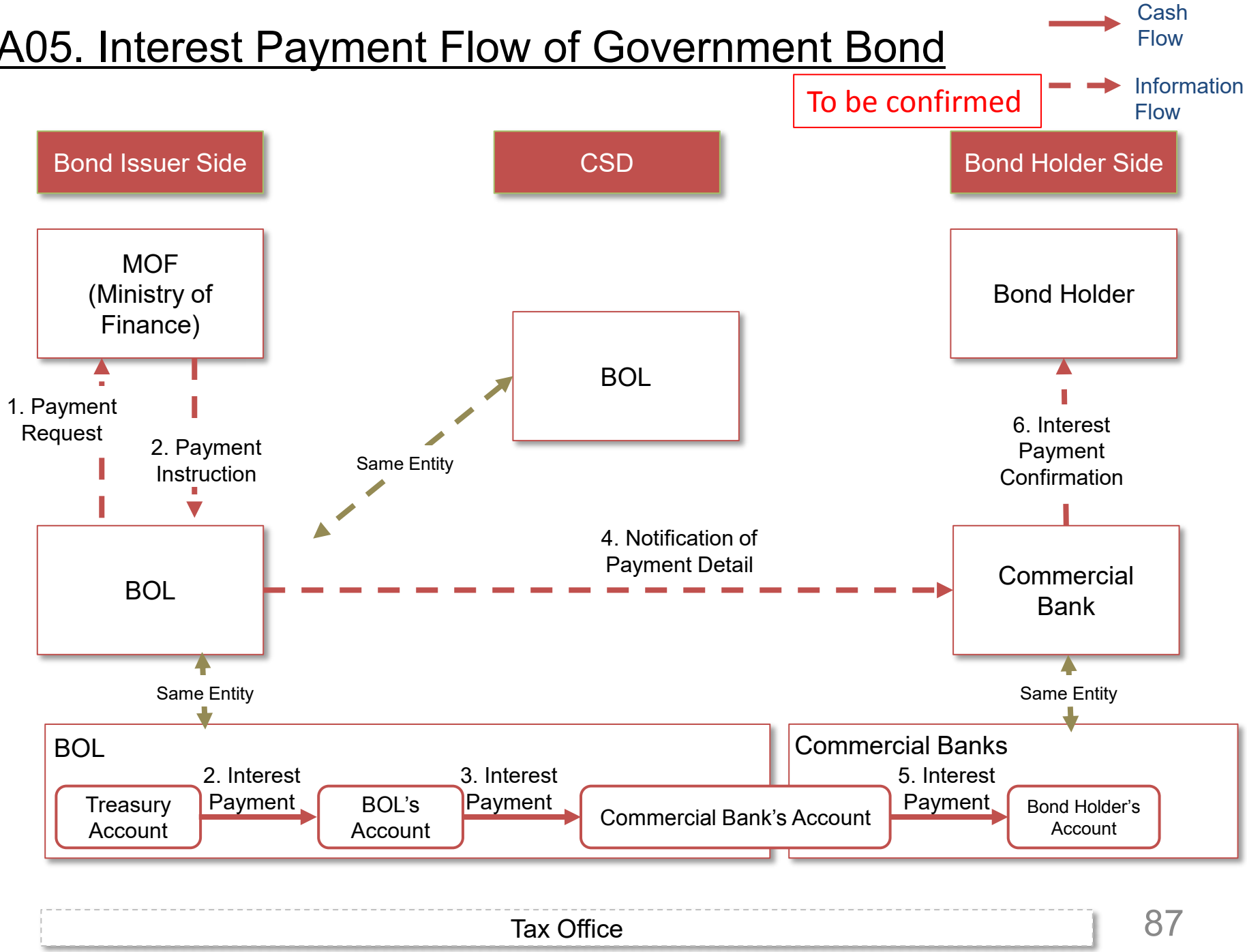
2. Bond Transaction Flow for Domestic Trades (Government Bond)

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

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

LA05. Interest Payment Flow of Government Bond



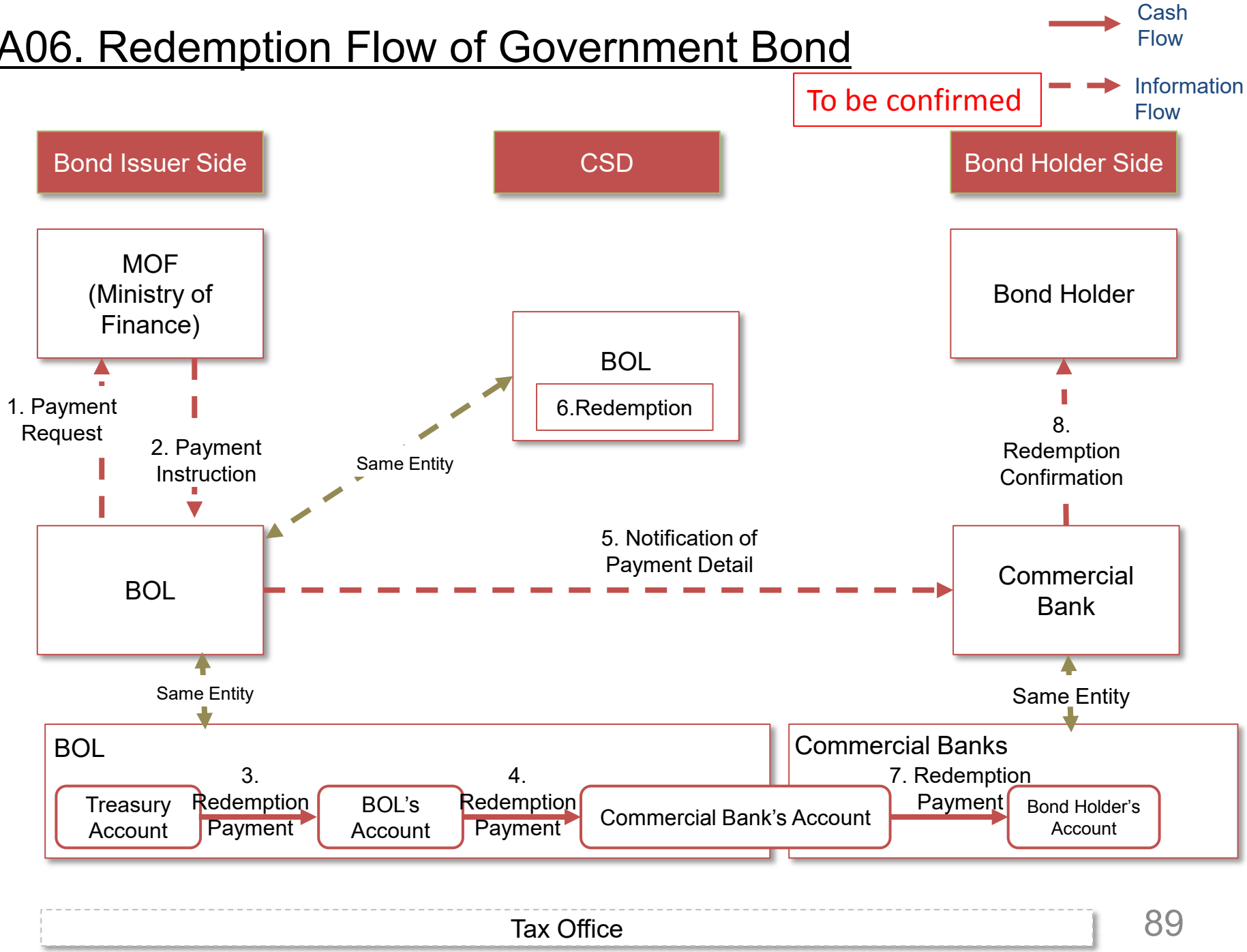
LA Interest Payment Flow of Government Bond

To be confirmed

Process of Interest Payment

1. MOF provides order of debit to BOL in advance of interest payment date.
2. MOF instructs BOL to make interest payment.
3. On payment date, BOL debits interest payment amount from Treasury Account following order of debit by MOF and credit it to it's own account.
4. BOL transfers cash for interest payment to commercial bank's account via BOL Clearing House.
5. BOL sends notification for interest payment to commercial bank.
6. Commercial bank credits interest amount to its client's account in the case that bond is held by bond holder.
7. Commercial bank notifies bond holders of interest payment.

LA06. Redemption Flow of Government Bond



LA Redemption Payment Flow of Government Bond

To be confirmed

Process of Redemption Payment

1. MOF provides order of debit to BOL in advance of redemption due date.
2. MOF instructs BOL to make redemption payment.
3. On due date, BOL debits redemption payment amount from Treasury Account following order of debit by MOF and credit it to it's own account.
4. BOL transfers cash for redemption to commercial bank's account.
5. BOL sends notification for redemption to original bond holder.
6. BOL makes bond redemption.
7. Commercial bank credits redemption payment to its client's account in the case that bond is held by bond holder.
8. Commercial bank notifies bond holders of redemption.

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram

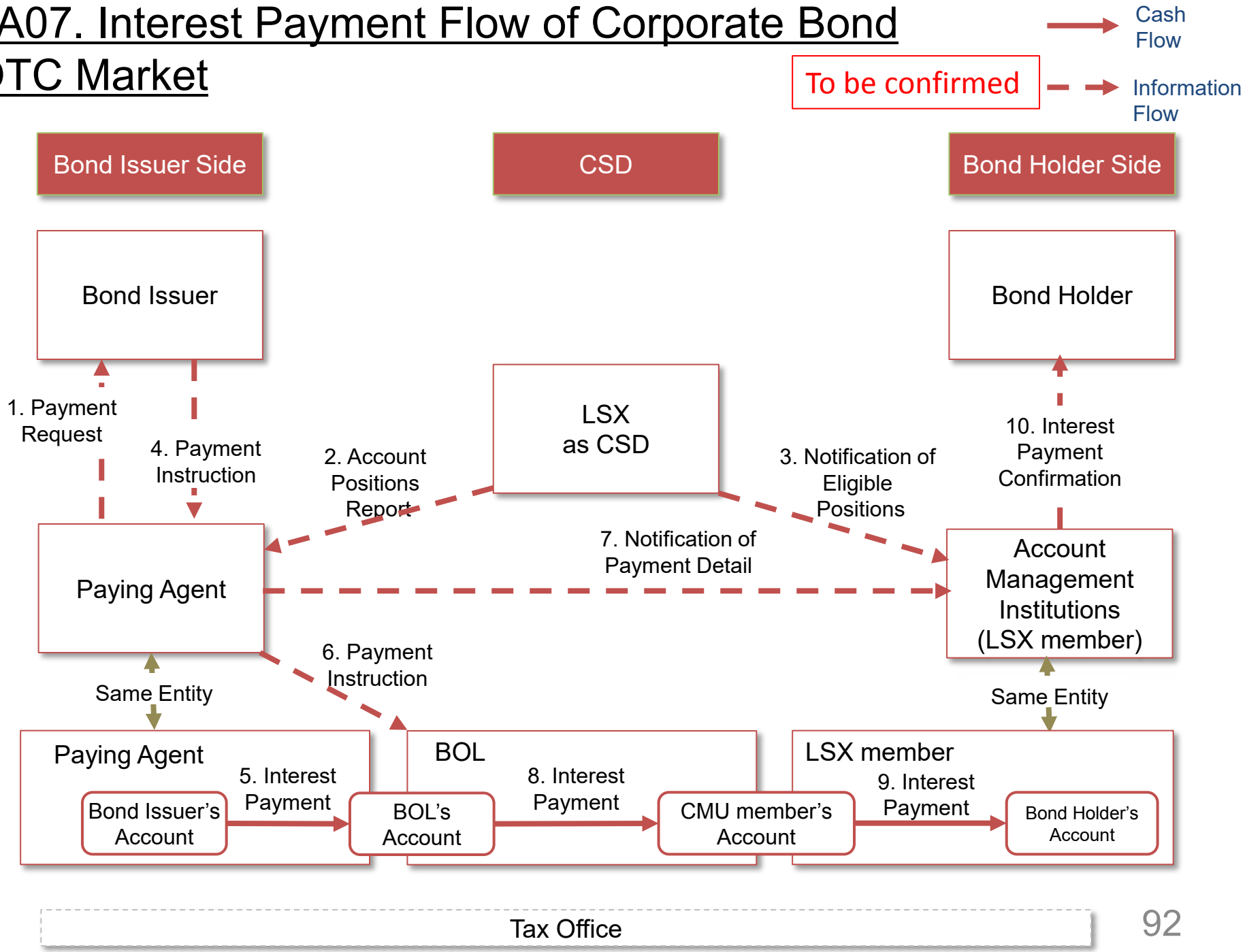
2. Bond Transaction Flow for Domestic Trades (Government Bond

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

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

LA07. Interest Payment Flow of Corporate Bond OTC Market



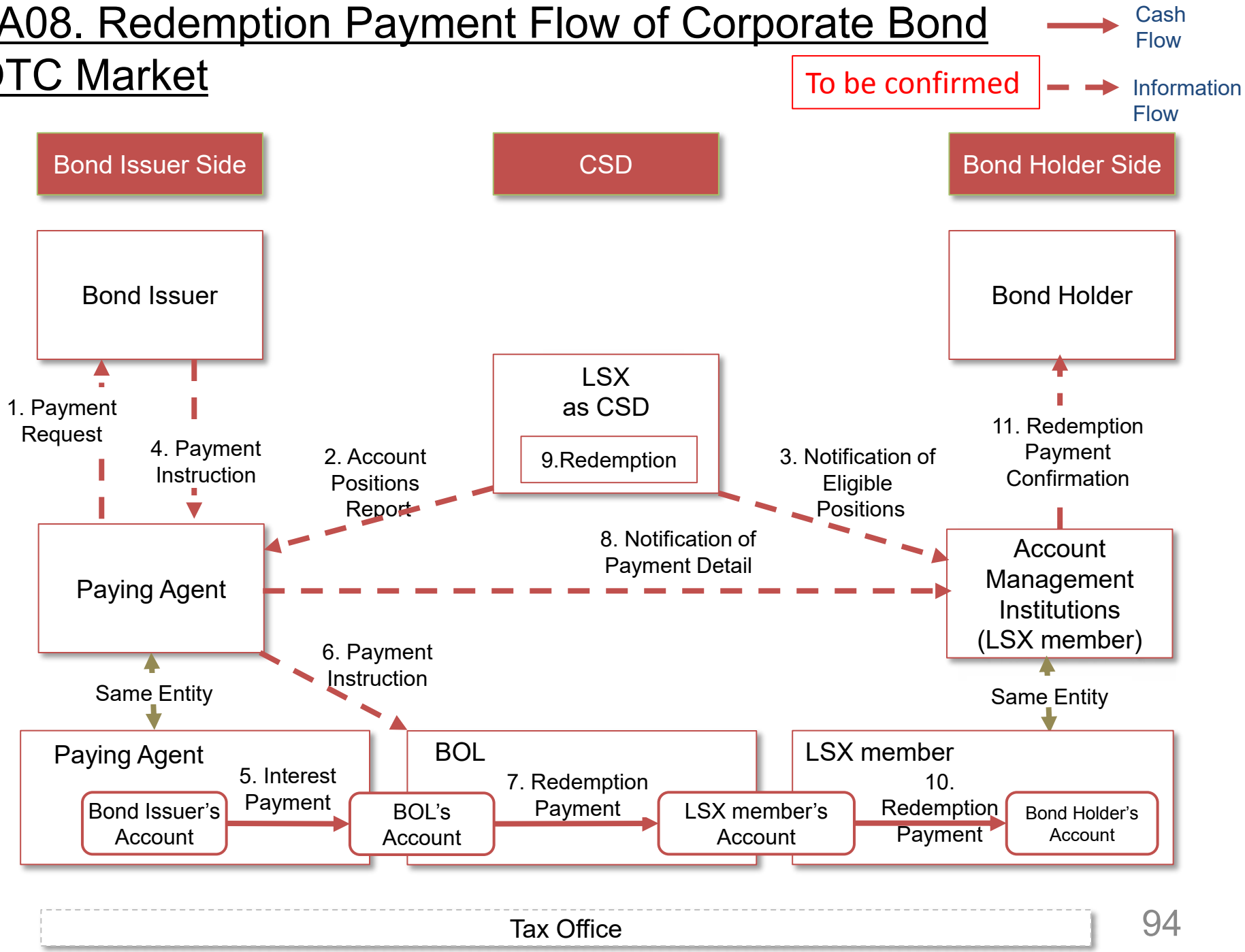
LA Interest Payment Flow of Corporate Bond

To be confirmed

Process of Interest Payment

1. Paying agent notifies bond issuer of interest payment.
2. Before interest payment date, LSX sends Account Positions Report to paying agent.
3. Before interest payment date, LSX sends notification of eligible positions to account management institutions (LSX 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 BOL to pay interest to LSX members.
7. Paying agent sends notification for interest payment to Account Management Institutions (LSX Members).
8. BOL transfers the interest proceeds to the account management institutions (LSX Members).
9. LSX members subsequently pay the interest proceeds to the bond holders.
10. LSX members notifies bond holders of interest payment.

LA08. Redemption Payment Flow of Corporate Bond OTC Market



LA Redemption Payment Flow of Government Bond

To be confirmed

Process of Interest Payment

1. Paying agent notifies bond issuer of redemption payment.
2. Before redemption payment date, LSX sends Account Positions Report to paying agent.
3. Before redemption payment date, LSX sends notification of eligible positions to account management institutions (LSX Members).
4. 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 instruct BOL to pay last interest and principal to LSX members.
7. BOL transfers the interest proceeds to the account management institutions (LSX Members).
8. Paying Agent sends notification for redemption to Account Management Institutions.
9. LSX as CSD carries out redemption.
10. LSX members subsequently pay the interest proceeds to the bond holders.
11. LSX members notifies bond holders of redemption payment.

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

Myanmar (MM)

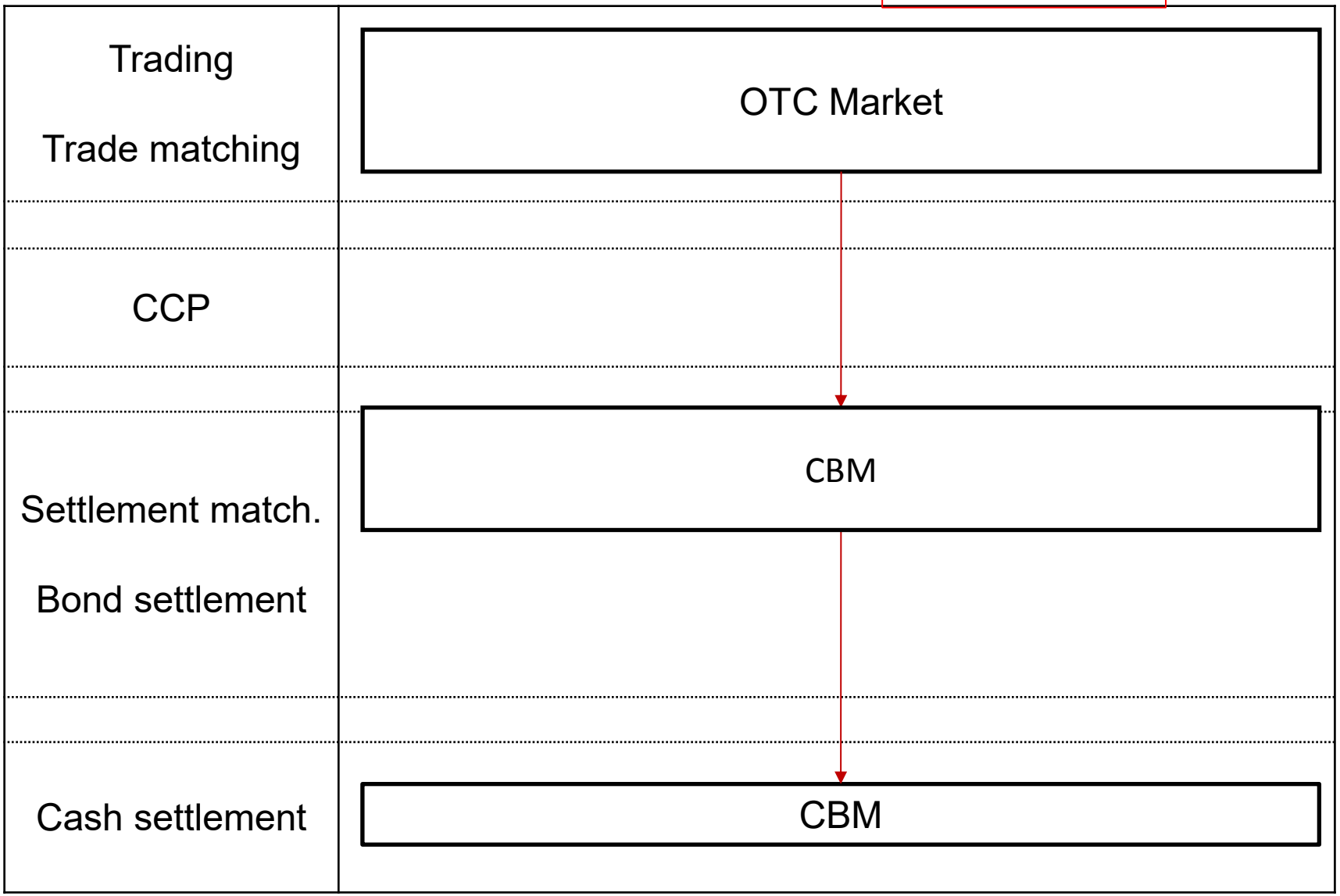
1. Bond Market Infrastructure Diagram
2. Bond Transaction Flow for Domestic Trades (Government Bond)
3. Bond Transaction Flow for Domestic Trades (Corporate Bond)
4. Interest & Redemption Payment Flow (Government Bond)
5. Interest & Redemption Payment Flow (Corporate Bond)

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

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)

MM01. Government Bond Market Infrastructure Diagram

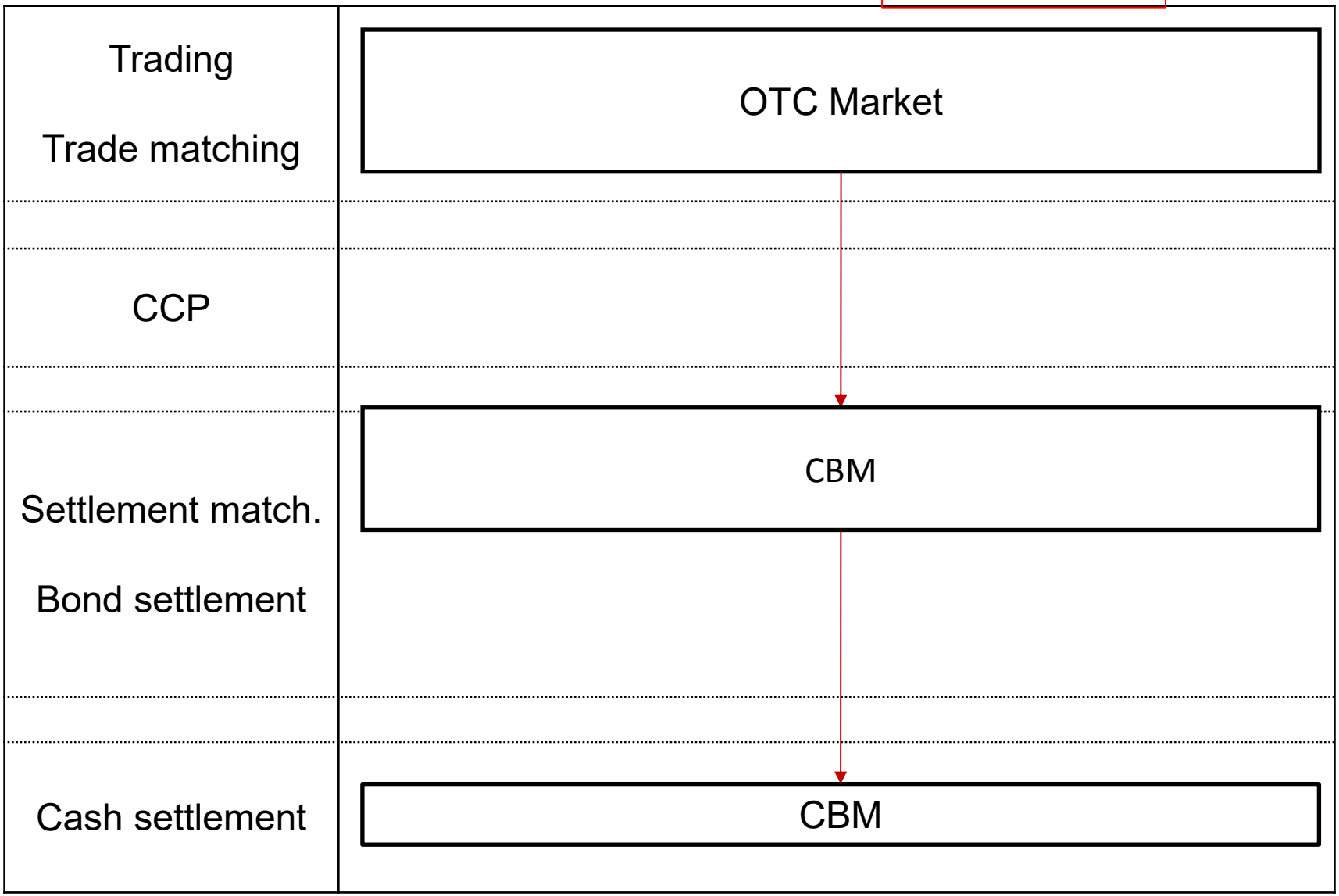
To be confirmed



CBM: Central Bank of Myanmar

MM02. Corporate Bond Market Infrastructure Diagram

To be confirmed



CBM: Central Bank of Myanmar

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram

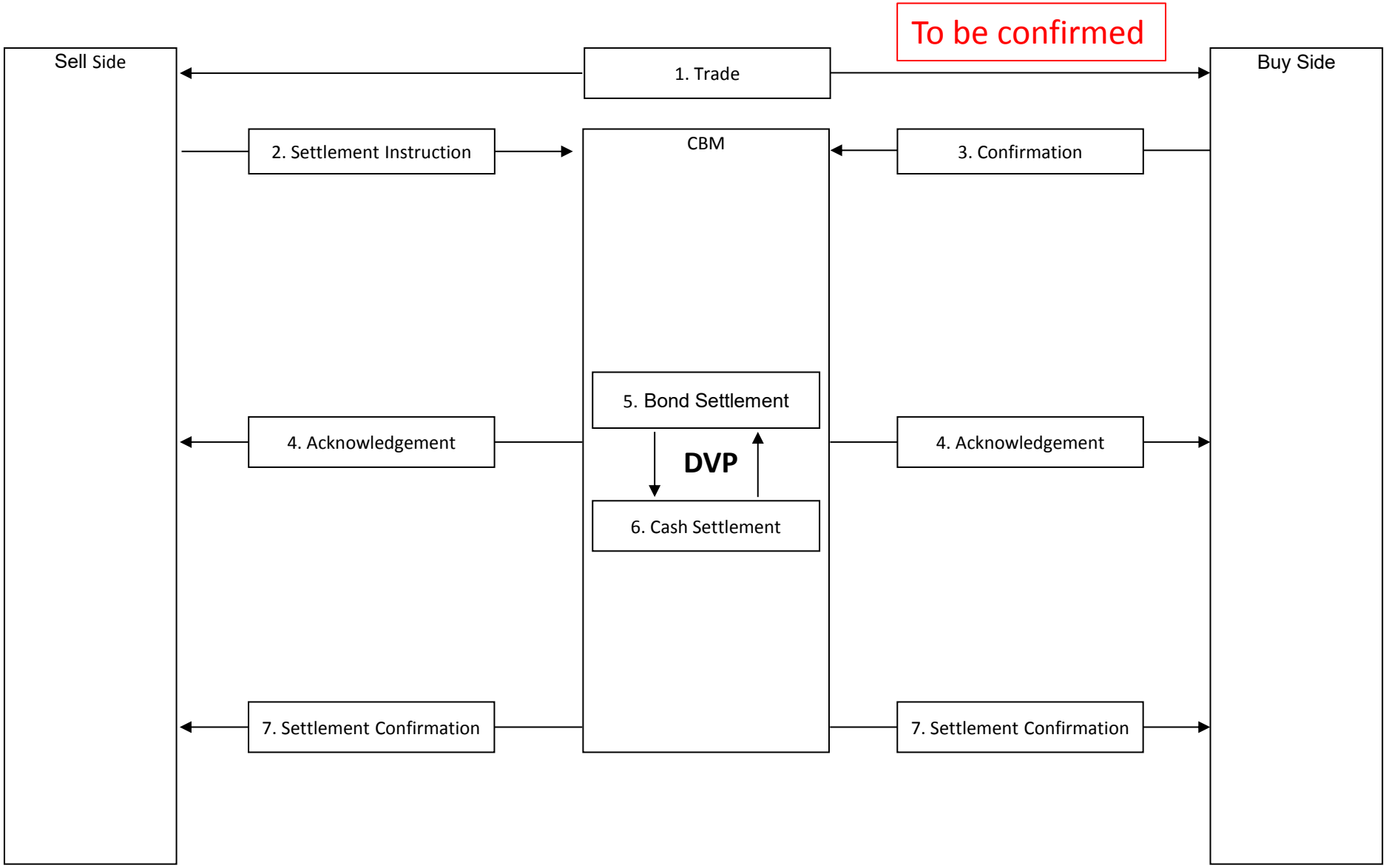
2. Bond Transaction Flow for Domestic Trades (Government Bond)

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

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

MM03. Government Bond Transaction Flow for Domestic Trades



CBM: Central Bank of Myanmar

MM03. Government Bond Transaction Flow for Domestic Trades

To be confirmed

OTC Market

1. Sell side and buy side trade over the counter.
2. Sell side sends instruction to Central Bank of Myanmar (CBM).
3. Buy side sends confirmation to CBM.
4. CBM sends acknowledgement to both sell side and buy side.
5. CBM executes bond settlement.
6. CBM executes cash settlement.
7. CBM sends securities settlement confirmation to sell side and buy side.

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram

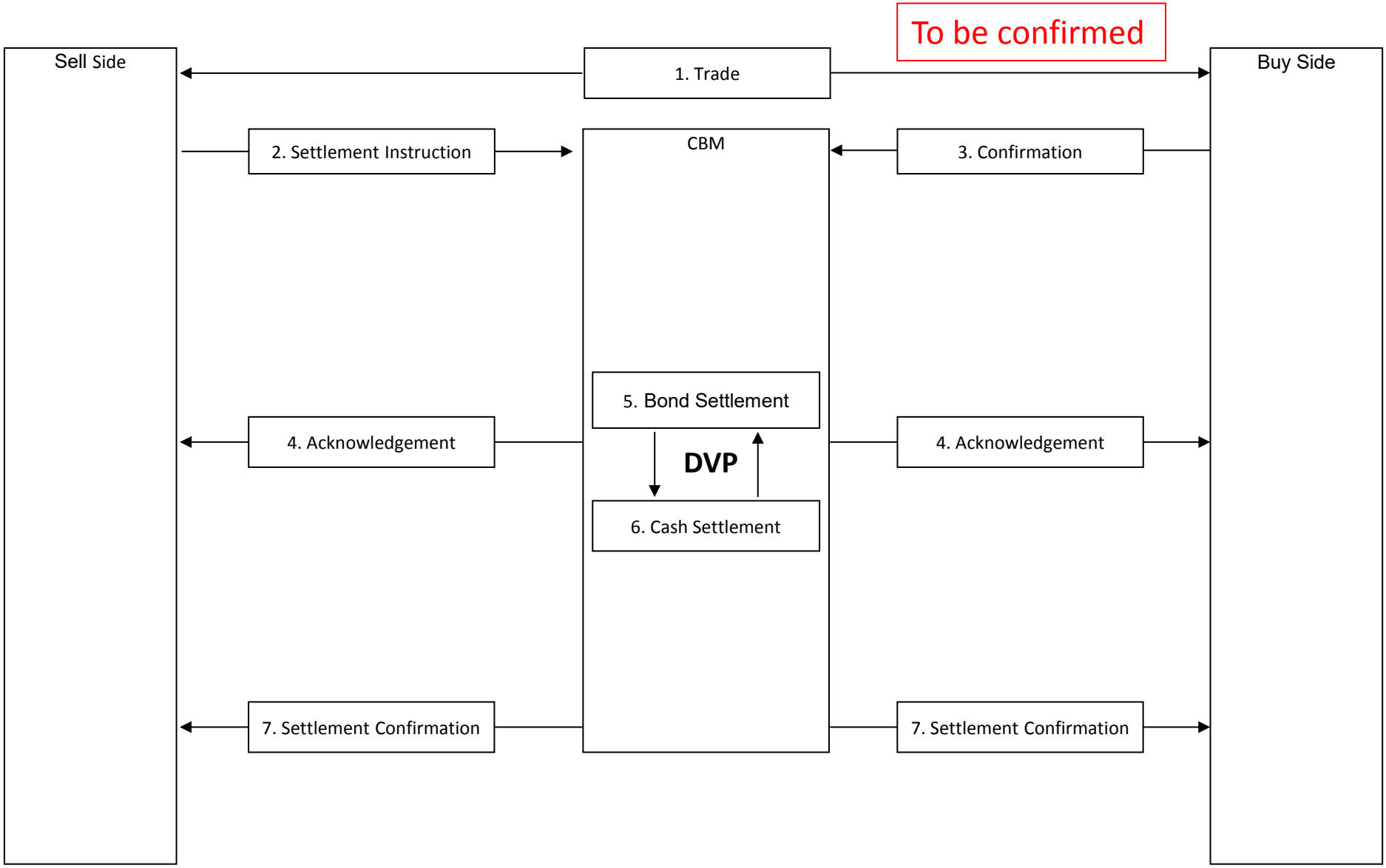
2. Bond Transaction Flow for Domestic Trades (Government Bond)

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

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

MM04. Corporate Bond Transaction Flow for Domestic Trades



CBM: Central Bank of Myanmar

MM04. Corporate Bond Transaction Flow for Domestic Trades

To be confirmed

OTC Market

1. Sell side and buy side trade over the counter.
2. Sell side sends instruction to Central Bank of Myanmar (CBM).
3. CBM sends confirmation to buy side.
4. CBM sends acknowledgement to both sell side and buy side.
5. CBM executes bond settlement.
6. CBM executes cash settlement.
7. CBM sends securities settlement confirmation to sell side and buy side.

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

1. Bond Market Infrastructure Diagram

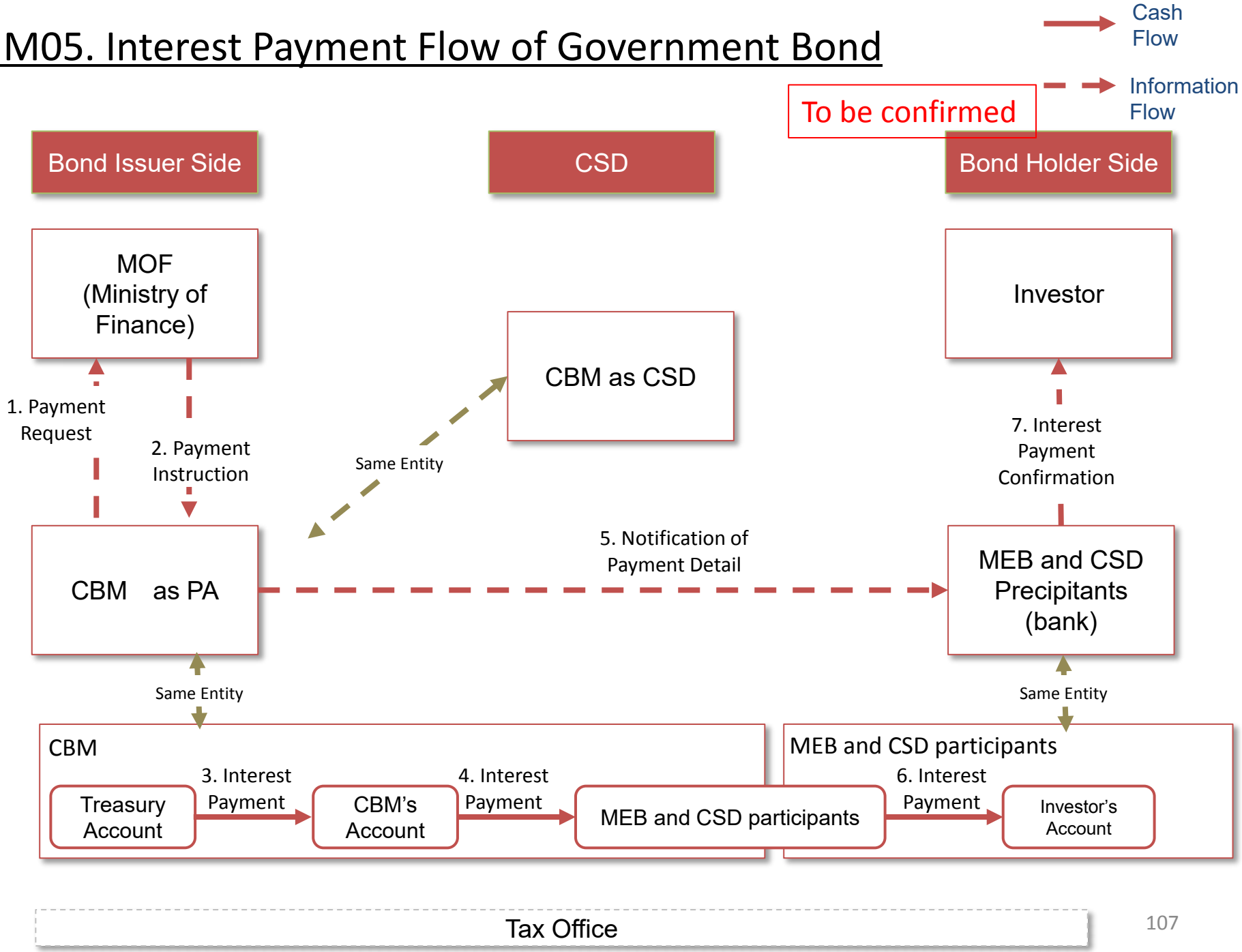
2. Bond Transaction Flow for Domestic Trades (Government Bond

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

4. Interest & Redemption Payment Flow (Government Bond)

5. Interest & Redemption Payment Flow (Corporate Bond)

MM05. Interest Payment Flow of Government Bond



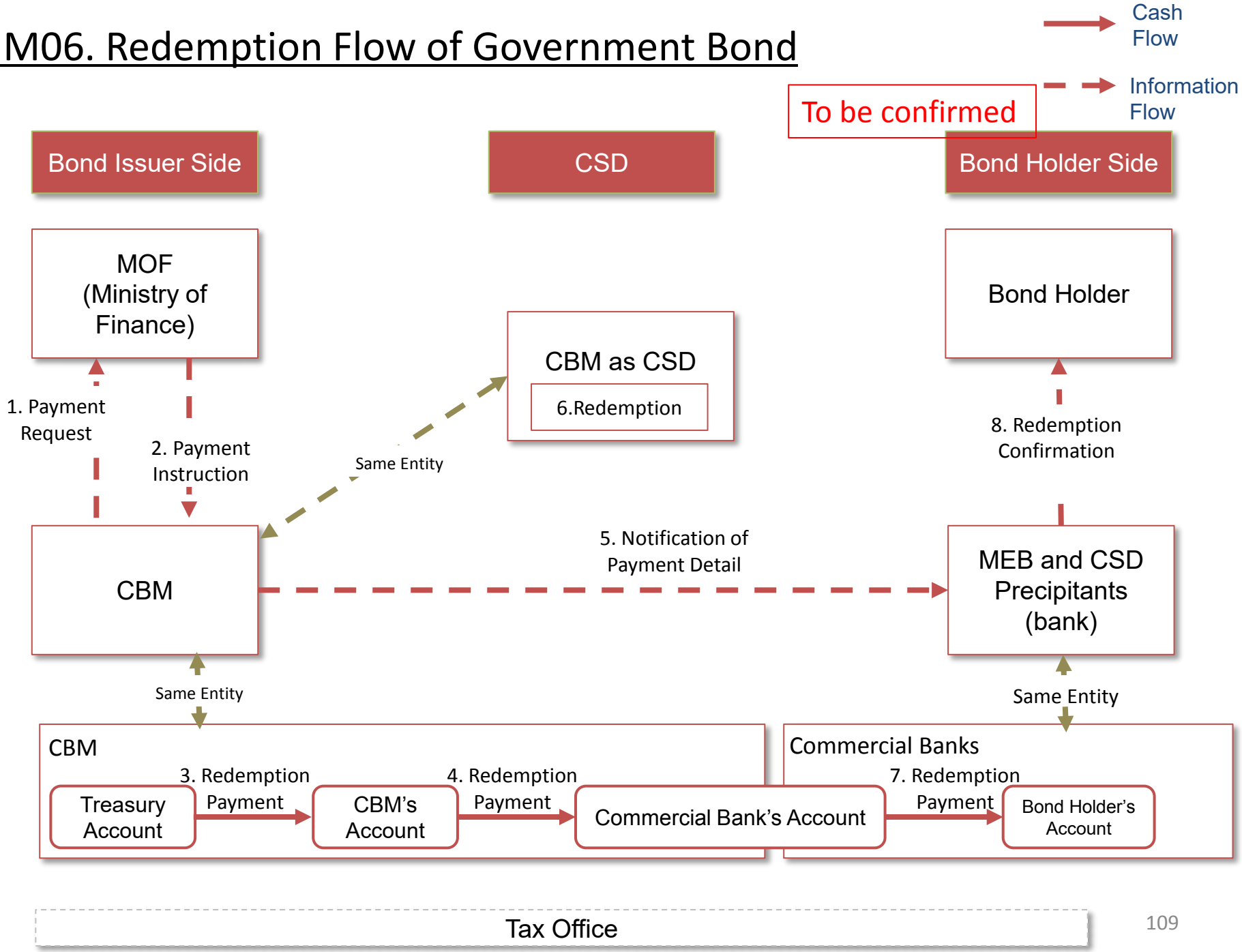
MM Interest Payment Flow of Government Bond

To be confirmed

Process of Interest Payment

1. MOF provides order of debit to CBM in advance of interest payment date.
2. MOF instructs CBM to make interest payment.
3. On payment date, CBM debits interest payment amount from Treasury Account following order of debit by MOF and credit it to it's own account.
4. CBM transfers cash for interest payment to MEB and CSD participants.
5. CBM sends notification for interest payment to MEB and CSD Precipitants
6. MEB and CSD Precipitants credit interest amount to its client's account in the case that bond is held by bond holder.
7. MEB and CSD Precipitants notify bond holders of interest payment.

MM06. Redemption Flow of Government Bond



MM Redemption Payment Flow of Government Bond

To be confirmed

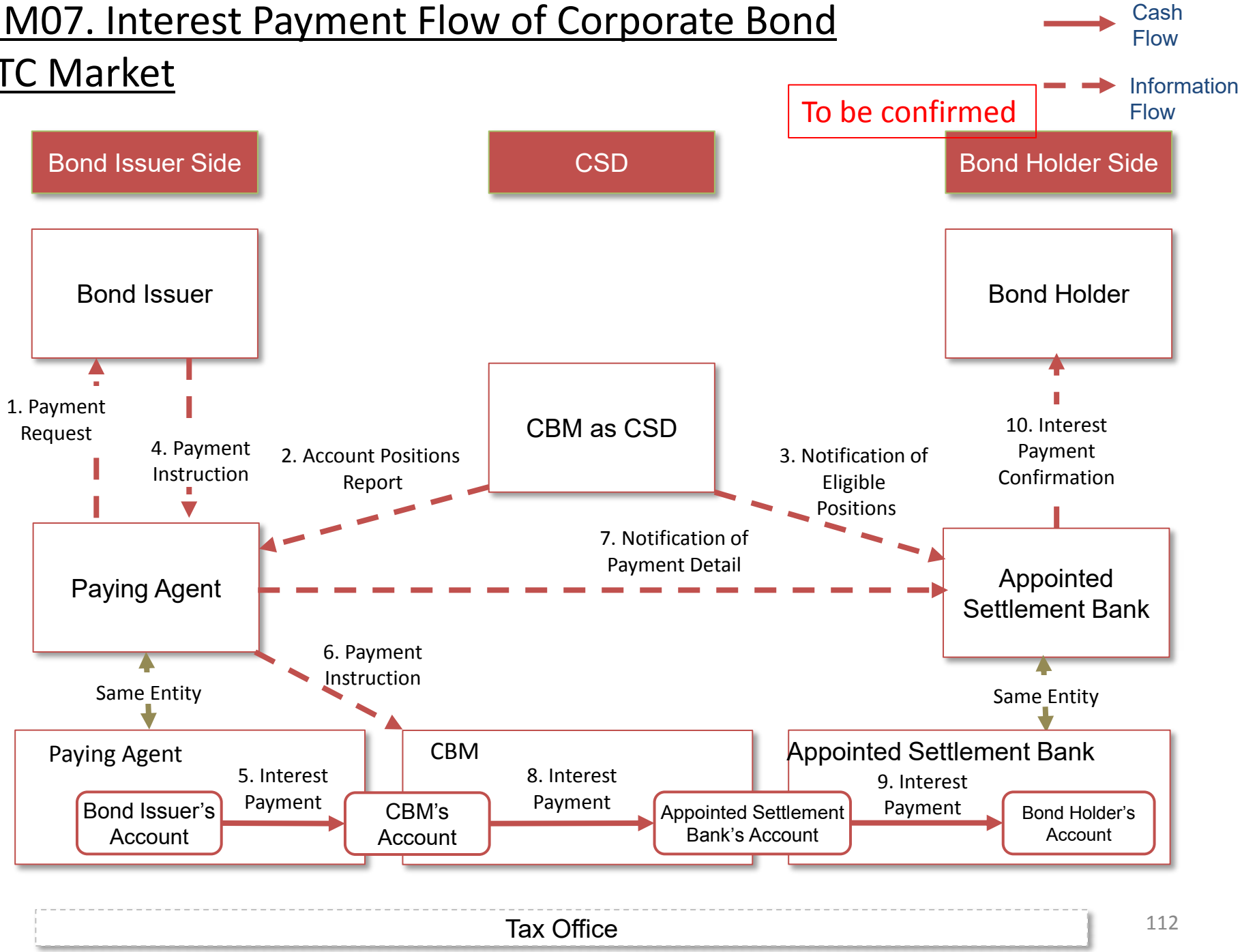
Process of Redemption Payment

1. MOF provides order of debit to CBM in advance of redemption due date.
2. MOF instructs CBM to make redemption payment.
3. On payment date, CBM debits redemption payment amount from Treasury Account following order of debit by MOF and credit it to it's own account.
4. CBM transfers cash for redemption to MEB and CSD participants.
5. CBM sends notification for redemption to MEB and CSD Precipitants
6. CBM makes bond redemption.
7. MEB and CSD Precipitants credit redemption payment to its client's account in the case that bond is held by bond holder.
8. MEB and CSD Precipitants notify bond holders of redemption.

This is just possible examples of transaction flows drafted by ADB consultant for ABMF SF2 and need to be checked by market infrastructure operators.

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)

MM07. Interest Payment Flow of Corporate Bond OTC Market



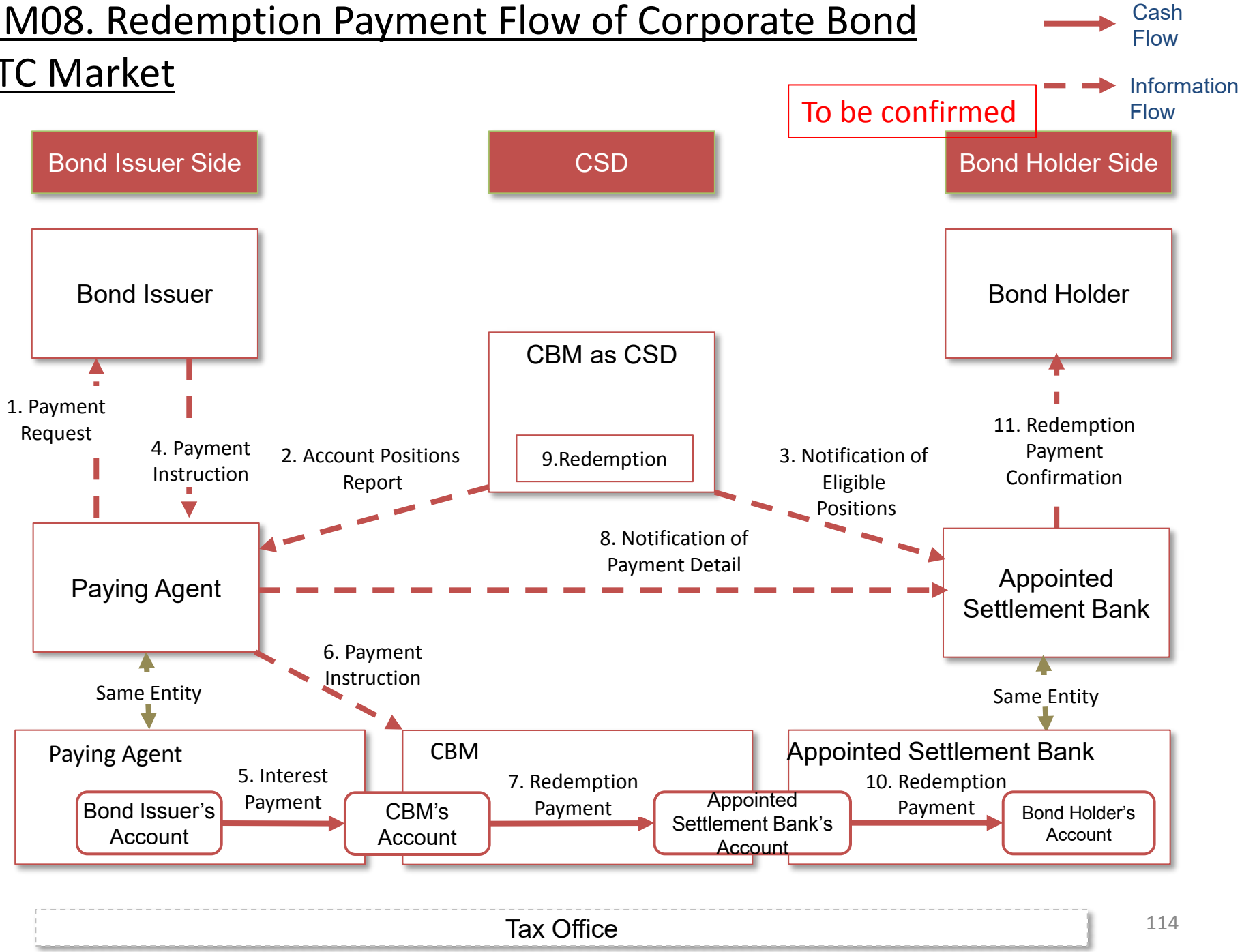
MM Interest Payment Flow of Corporate Bond

To be confirmed

Process of Interest Payment

1. Paying agent notifies bond issuer of interest payment.
2. Before interest payment date, CBM as CSD sends Account Positions Report to paying agent.
3. Before interest payment date, CBM as CSD sends notification of eligible positions to Appointed Settlement Bank.
4. 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 CBM to pay interest to Appointed Settlement Bank.
7. Paying agent sends notification for interest payment to Appointed Settlement Bank.
8. CBM transfers the interest proceeds to the account Appointed Settlement Bank.
9. Appointed Settlement Bank subsequently pay the interest proceeds to the bond holders.
10. Appointed Settlement Bank notifies bond holders of interest payment.

MM08. Redemption Payment Flow of Corporate Bond OTC Market



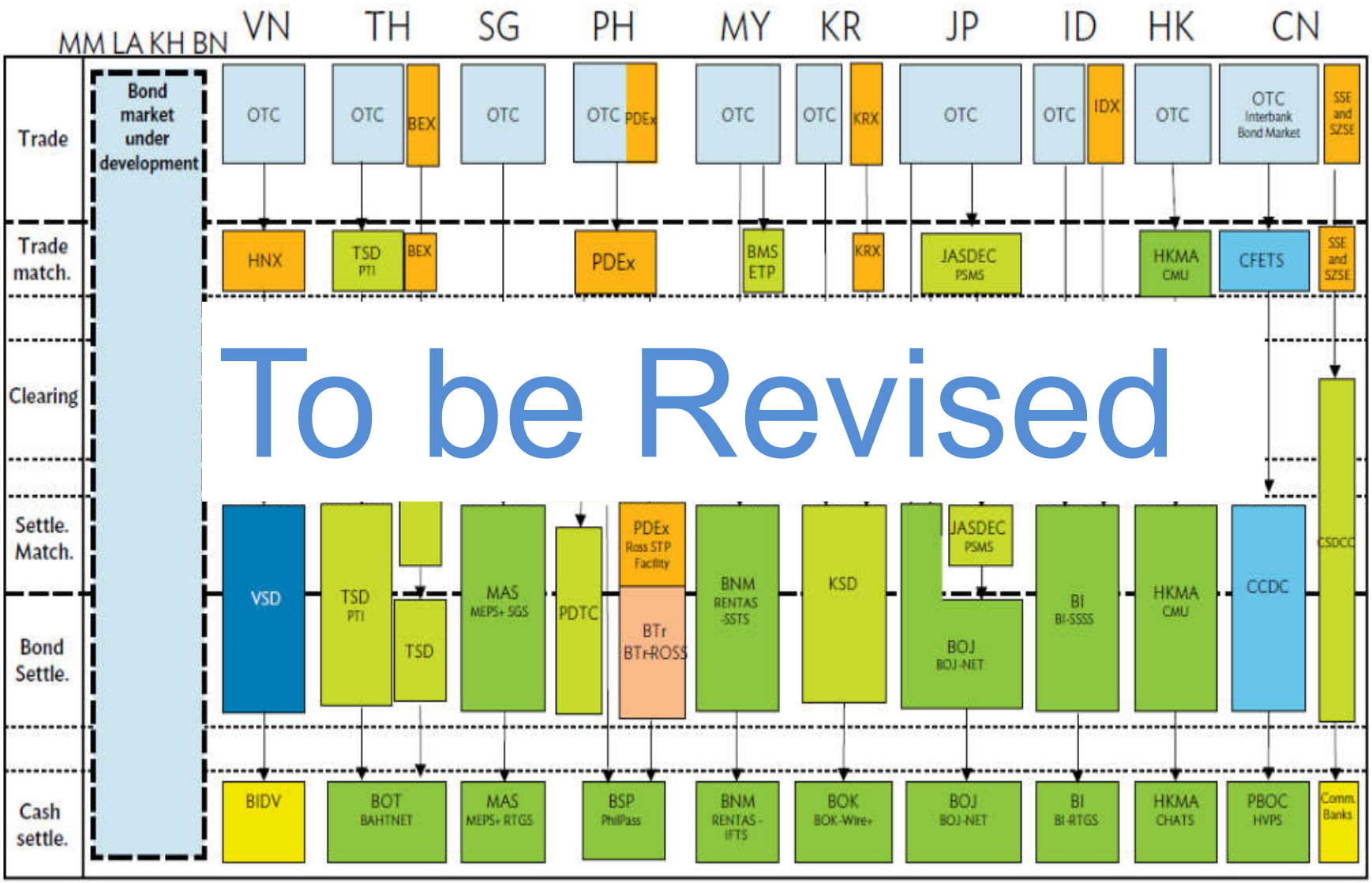
MM Redemption Payment Flow of Government Bond

To be confirmed

Process of Interest Payment

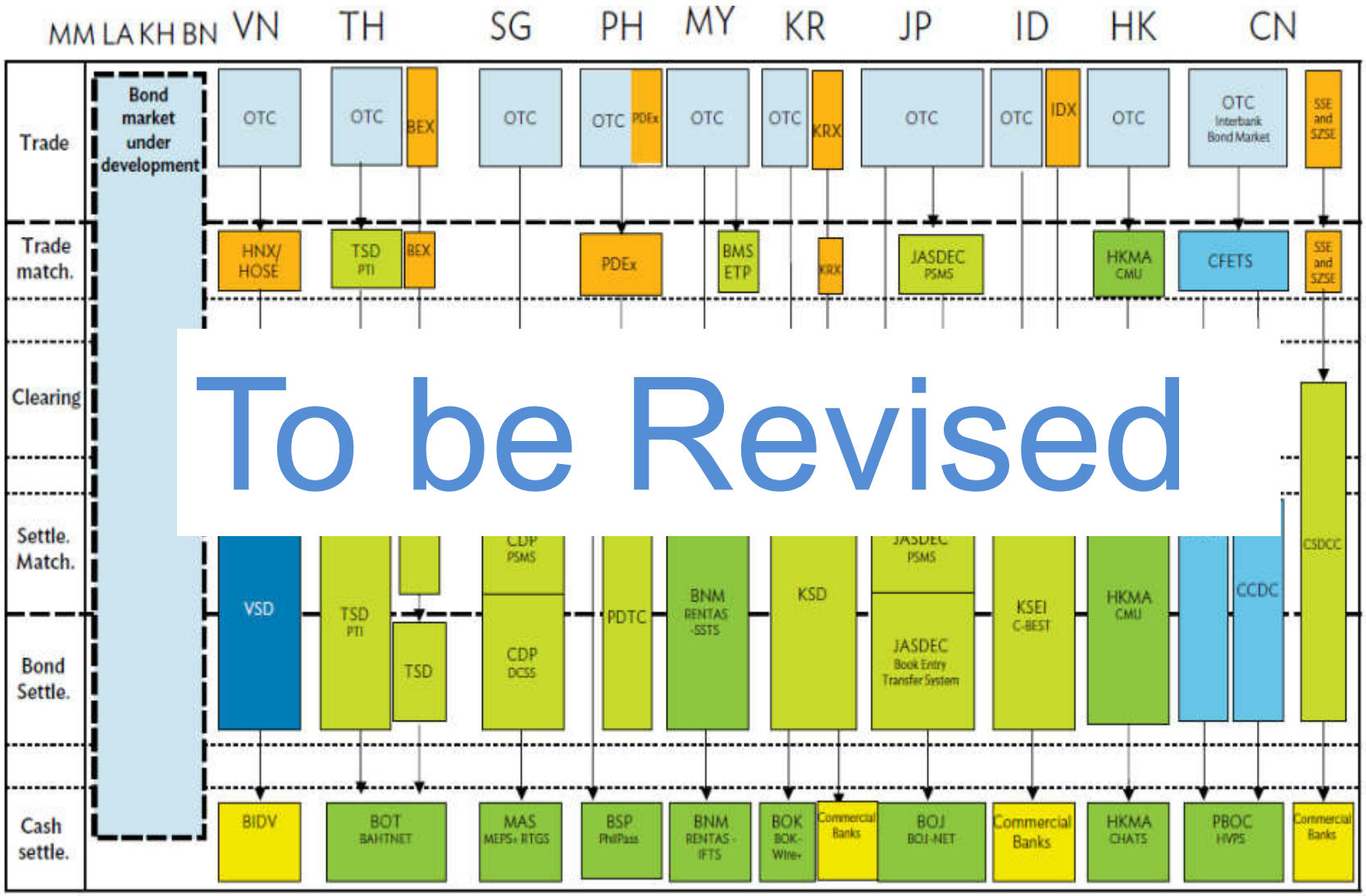
1. Paying agent notifies bond issuer of redemption payment.
2. Before redemption payment date, CBM as CSD sends Account Positions Report to paying agent.
3. Before redemption payment date, CBM as CSD sends notification of eligible positions to Appointed Settlement Bank.
4. Bond issuer instructs it's paying agent to make redemption payment.
5. Paying agent transfers cash from issuer's account to it's own account.
6. Paying agent instruct CBM to pay last interest and principal to Appointed Settlement Bank.
7. CBM transfers the interest proceeds to the Appointed Settlement Bank.
8. Paying Agent sends notification for redemption to Appointed Settlement Bank.
9. CBM as CSD carries out redemption.
10. Appointed Settlement Bank subsequently pay the interest proceeds to the bond holders.
11. Appointed Settlement Bank notifies bond holders of redemption payment.

ASEAN+3 Government Bond Market Diagram



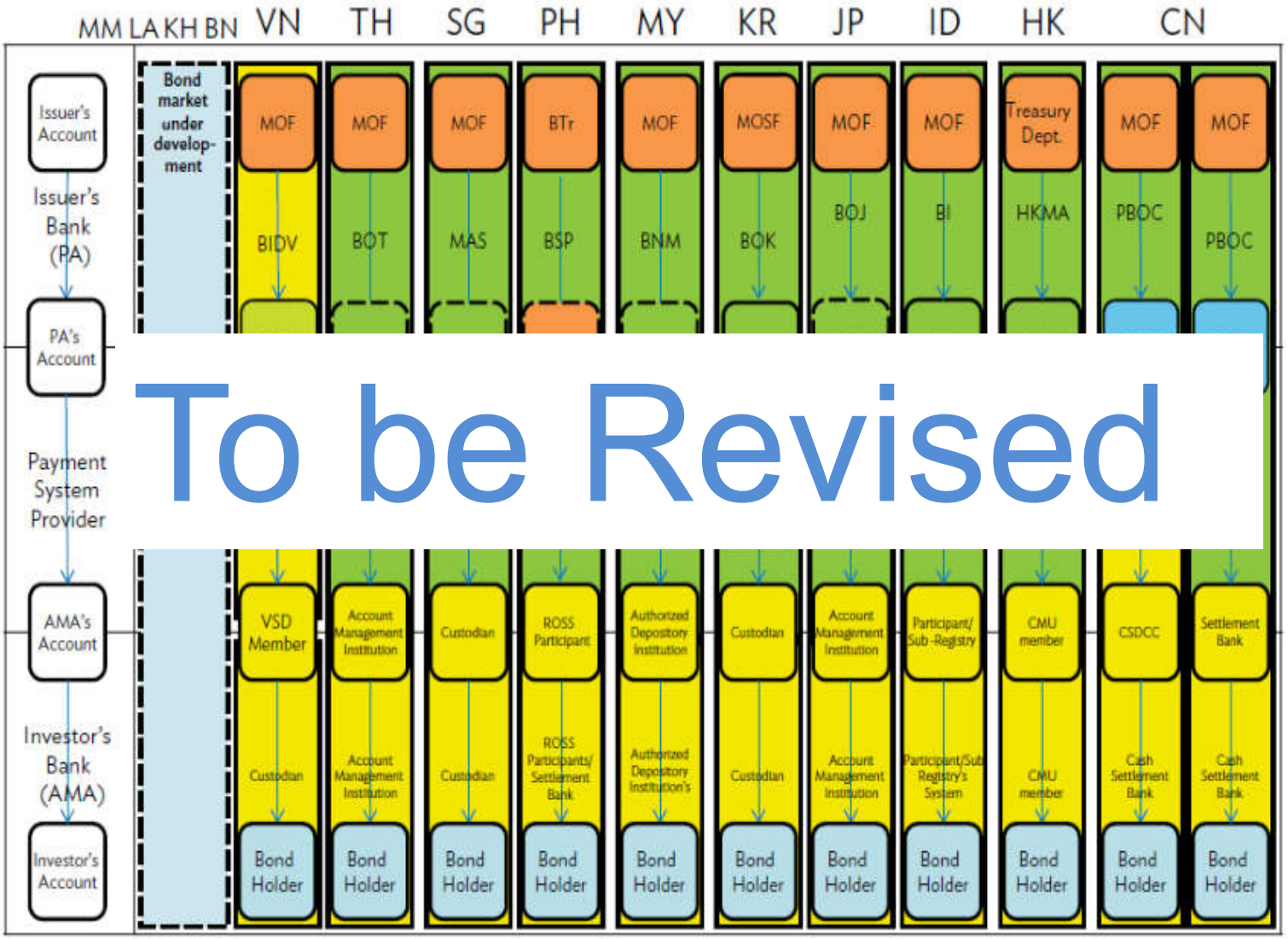
Source: ABMF SF2

ASEAN+3 Corporate Bond Market Diagram



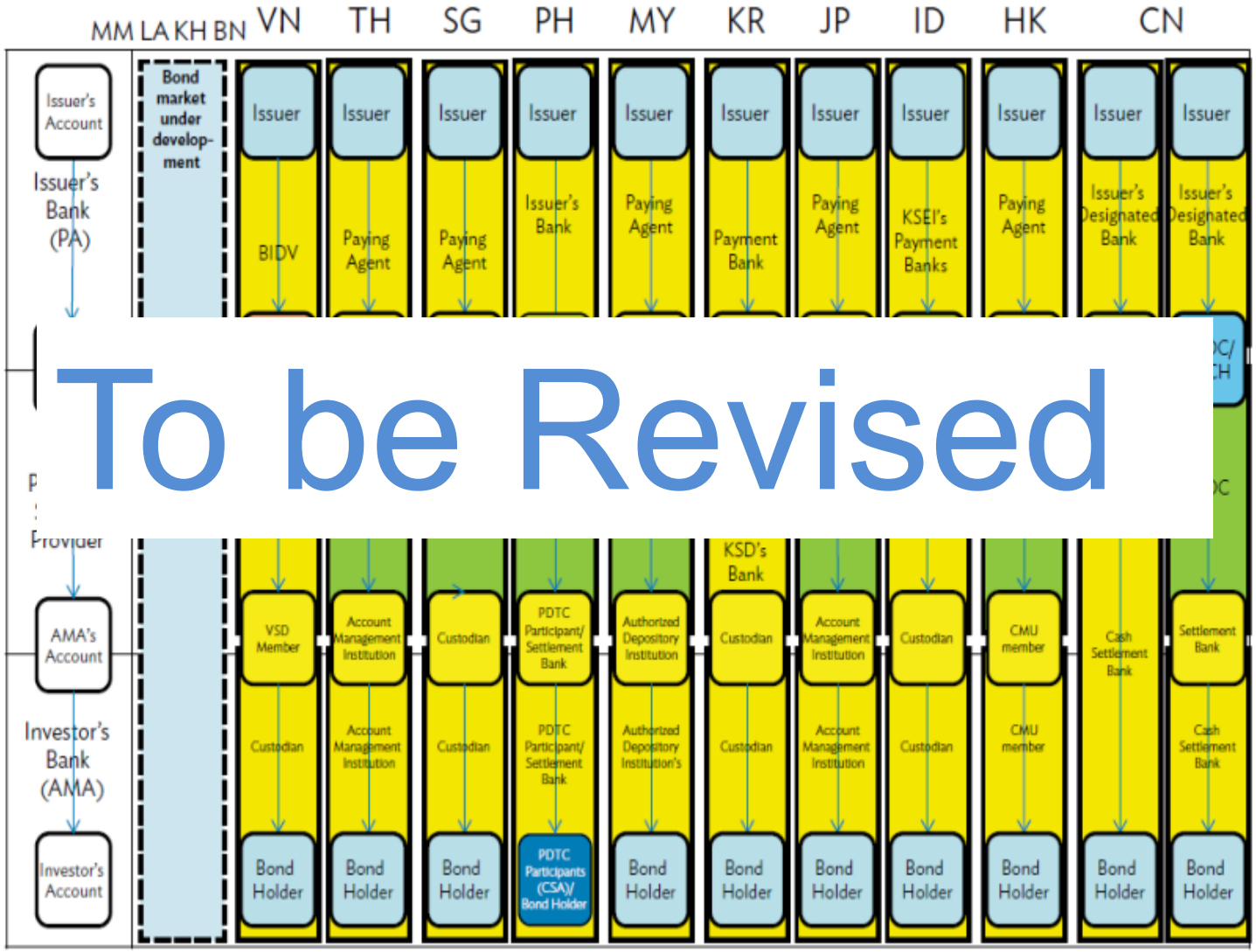
Source: ABMF SF2

Government Bond Interest Payment Related Entities



Source: ABMF SF2

Corporate Bond Interest Payment Related Entities



To be Revised

Source: ABMF SF2

International Standard for message items of Securities Settlement System (SSS)

		Name of Bond Settlement System	Inst.	Standardization of Message items (SSS)							System renewal	
	CSD			ISO		ISIN	BIC	Charac. Code set	Comm protocol	Overall	Inauguration current system	Reconstruct. period
				ISO15022	ISO20022							
BN	AMBD	NPSS	G		Y (2016)	Y (201X)	Y	Y	Y	Y (2016)		2016
BN	(TBD)		C		Y (201X)	Y (201X)	Y	Y	Y	Y (201X)		201X
CN	CCDC	CBGS	G/C	N	Y	Y	Y	Y	Y	Y	2013	
CN	CSDC	MNS	G/C	N	Y (201X)	Y (201X)	Y	Y	Y	Y (201X)	Nov. 2011	
CN	SHCH	SHCH-SSS	C	N	Y (201X)	Y (201X)	Y	Y	Y	Y (201X)	Dec 2011	
HK	HKMA	CMU	G/C	Y	N	Y	Y	Y	Y	Y	Mar. 1990	
ID	BI										03	2018
ID	KSEI											2016
JP	BOJ	B									an	2015
JP	JASDEC										14	
KH	CSX											
KR	KSD	SSS/SAFE+	G/C	N	Y (201X)	Y	Y	Y (201X)	Y	Y (201X)	Nov 2011	
LA	BOL	-	G/C	N								
MM	CBM	-	G/C	N	Y (201X)	Y (2015)	Y (2015)	Y (2015)	Y (2015)	Y (201X)		2015
MY	BNM	RENTAS SSTS	G/C	Y (2016)	Y (2018)	Y	Y (2017)	Y	Y	Y(2018)	Jul 1999	2018
PH	BTr	BTr-ROSS	G	Y (2015)	Y (2015)	Y (2015)	Y (2015)	Y	Y	Y (2015)	Nov 1996	2015
PH	PDTC	PDTC Depository	G/C	Y (2015)	Y (2015)	Y (2015)	Y (2015)	Y	Y	Y (2015)	Mar 1995	2015
SG	MAS	MEPS+ SGS	G	Y	N	Y	Y	Y	Y	Y	Dec 2006	
SG	CDP	DCSS	C	Y (2015)	Y (2015)	Y	Y (2015)	Y	Y	Y (2015)	-	2015
TH	TSD	PTI	G/C	Y	N	Y	Y	Y	Y	Y	Oct 2007	2019
VN	VSD	VSD-BES	G/C	Y	Y(201X)	Y	Y (201X)	Y	Y	Y (201X)	May. 2014	2016

To be Revised

PH: Interface between BTr and its participants are provided by PDS Group. The above information is based on PDS Group.
The schedule needs to be confirmed at the ABMF SF2.Information about CN, HK, KR, SG (MAS), and TH need to be updated.

International Standard for message items of Cash Settlement (RTGS) System

			Standardization of Message Items (RTGS)						System renewal	
	Operator	Name of the System	ISO messages		BIC	Char. Code set	Commun. protocol	Overall	Inauguration current system	Reconstruction period
			ISO15022	ISO20022						
BN	AMBD	-	N	Y	Y	Y	Y	Y	2015	
CN	PBOC	HVPS	N	Y	Y	Y	Y	Y	2014	
HK	HKMA	CHATS	Y	N	Y	Y	Y	Y	Dec 1996	
ID	BI	BI-R								2015
JP	BOJ	BOJ-								2015
KH	NBC									201X
KR	BOK	BOK								
LA	BOL	-	Y		Y	Y	Y	Y		
MM	CMB	-	N	Y (2015)	Y (2015)	Y (2015)	Y (2015)	Y (201X)		2015
MY	BNM	RENTAS IFTS	Y (2016)	Y (2018)	Y(2017)	Y	Y	Y(2018)	Jul 1999/2004/2011	2018
PH	BSP	PhilPaSS	Y	Y (2015)	Y	Y	Y	Y (2015)	1995/Dec 2002	2015
SG	MAS	MEPS plus	Y	N	Y	Y	Y	Y	Dec 2006	2015
TH	BOT	BAHTNET	Y	N	Y	Y	Y	Y	Dec 2001/2012	2019
VN	SBV (BIDV)		N	Y (201X)	Y (201X)	Y (201X)	Y (201X)	Y (201X)	2010	201X

To be Revised

VN: SBV is planning to be cash settlement operator adopting ISO 20022.
Information about CN, HK, KR, SG (MAS), and TH need to be updated.

ISO Institutional Framework

	ISO member	TC68 member	RMG	PSEG	SSEG
BN	Correspondent member (ABCI)				
KH	Correspondent member (ISC)				
CN	Full member (SAC)	Participant member (SAC)	Member (PBOC)		
HK	Correspondent member (ITCHKSAR)	Observing member (ITCHKSAR)			
ID	Full member (BSN)				
JP	Full member (JISC)	Participant member (JISC)	Member (BOJ, JPMC)	Member (BOJ, Zenginkyo, NTT Data, JPMC, BTMUFJ)	Member (BOJ, JASDEC, Mizuho CB, BTMUFJ, NTT Data)
KR	Full member (KATS)	Participant member (KATS)	Member (KFTC, KATS)	Member (KFTC)	
LA	Subscriber member (DISM)				
MY	Full member (DSM)	Observing member (DSM)			
MM	Correspondent member (MSTRD)				
PH	Full member (BPS)	Observing member (BPS)			
SG	Full member (SPRING SG)	Participating member (SPRING SG) to be downgraded to observing member	Member (SC, DB)	Member (SC, TechCreate Solution)	Member (Standard Chartered Bank)
TH	Full member (TISI)	Participating member (TISI)			
VN	Full member (STAMEQ)				

Source: ISO modified by ADB consultant for ABMF SF2

ISO/TC68 National Mirror Committee Operating Agreement (draft example)

(Title)

Article 1: This committee shall be called ISO/TC68 National Mirror Committee.

(Composition)

Article 2: This committee shall have the chairperson and the secretary general, and be composed of people from financial industry, financial-related industries and a few academic professionals.

(Purpose)

Article 3: The purpose of this committee shall be to report considerations in financial services and also conduct deliberations on them.

(Meetings)

Article 4: This committee shall hold meetings more than once a year.

ISO/TC68 National Mirror Committee Operating Agreement (draft example)

(Calling of Committee meetings)

Article 5: A committee meeting shall be called by the chairperson or a person who is appointed by the chairperson.

(The Chair)

Article 6: The Chair of this committee shall be the chairperson or a person who is appointed by the chairperson.

(Sub-Committee)

Article 7: ISO/TC68 National Mirror Committee may establish the Sub-Committee, if necessary.

(Minutes)

Article 8: This committee shall make the minutes of each meeting.

ISO/TC68 National Mirror Committee Operating Agreement (draft example)

(The Secretariat)

Article 9: The Secretariat of ISO/TC68 National Mirror Committee shall be the ("Fair and neutral organization having expertise in the field of international standard and financial infrastructures") located "(address of the organization)"

(Revision of Agreement)

Article 10: The revision of this agreement shall be conducted by ISO/TC68 National Mirror Committee.

(Additional Rules)

This agreement shall be in effect from XX/YY/2015.

Could you check and correct the above draft example, please?

Possible Next Steps

Possible Next Steps

Continuing to harmonize and standardize market infrastructures in ASEAN+3

1. Further survey on tax issues such as withholding agents, KYC including investors domicile (country), etc., related to cross-border collateral and repo services
2. Standard RFP for RTGS and CSD systems
3. Including BN, KH, LA, and MM to the report
4. Establishing ISO 20022 institutional framework in ASEAN+3

Long term goal

1. Deeper and more liquid bond markets in ASEAN+3
2. Government debt in each economy will be people‘s asset in ASEAN+3
3. Interoperable not only in ASEAN+3 but also with other regions
   - Measures to protect each market including capital and cash controls need to remain under the discretion of authorities in each market.

Source: CSIF modified by ADB consultant for ABMF SF2

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Thank you so much

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This PowerPoint slides are made solely for the discussions of the 20th ABMF SF2 on 16 October 2015. Views expressed are those of the presenter and do not necessarily reflect those of the Asian Development Bank or any other organizations.

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