



**Asian Bond Markets Initiative  
Cross-Border Settlement Infrastructure Forum**

**CSIF Workshop on Cross-Border Use of Local Currency Collateral of ASEAN+3**

Friday, 4 December 2020 | 3:00 - 5:05 PM (Manila Time) | via Zoom

The Cross-Border Settlement Infrastructure Forum (CSIF) has been promoting more active intraregional financial investments through a creation of sound regional financial market infrastructure that would enable safe and efficient cross-border financial transactions including the cross-border usage of local currency bonds as collateral among the ASEAN+3 member markets. To ensure that future market infrastructure design will facilitate cross-border collateral pooling, the CSIF should lead a discussion on necessary conditions for market infrastructures and central banks to expand their collateral eligibility criteria to non-US dollar and local currency bonds from other regional markets.

Collateral markets have gained greater importance as demand for collateral assets has increased in the last decade, driven by changing market practices and an evolving regulatory landscape in the aftermath of the global financial crisis. These increases in demand are conjoined with changes such as limits on the reuse of collateral that could have a negative impact on supply, as well as segregation requirements that increase the operational complexity of collateral utilization. The use of collateral would inevitably increase further as risk management practices in financial transactions continue to evolve and as financial institutions respond to tightening regulatory changes: market participants prefer secured financial transactions to unsecured transactions in times of market stress, and economic turmoil triggered by the COVID-19 pandemic might accelerate these movements for a substantial period of time.

In line with these market circumstances, the design and implementation of central bank operating frameworks has become increasingly important for collateral markets, as such choice of operating framework, in combination with market liquidity and the regulatory/accounting treatment to collateral, can affect a market in various forms, whether intended or not. Also, as demand for collateral continues to rise, collateral management service providers are adjusting their line of services to improve efficiencies and enable market participants to meet collateral demands with existing and available securities. It is, thus, worthwhile to assimilate the existing range of collateral management services, how the market for collateral services is being improved—what innovation is under way—and what benefits as well as risks those collateral services can bring to the markets.

This CSIF workshop will invite experts from a central bank in an advanced market, collateral management service providers around the globe, and local CSDs in the ASEAN+3 region to learn about their services and ongoing responses to evolving market practices and regulation. The workshop will also serve as a communication platform inspiring each other to discuss viable ways for market infrastructures including central banks to utilize local currency bonds of ASEAN+3 as collateral for cross-border transactions under the market condition of the ongoing increase in demand for collateral.

**The Cross-Border Settlement Infrastructure Forum (CSIF)**

The Cross-Border Settlement Infrastructure Forum was established in 2013 by the ASEAN+3 under Asian Bond Markets Initiative. The CSIF is composed of the central banks and central securities depositories of the Association of Southeast Asian Nations and Japan, the People's Republic of China, and the Republic of Korea—known collectively as ASEAN+3. The CSIF is mandated to facilitate discussions to improve cross-border bond and cash settlement infrastructure in the ASEAN+3 region, including the possibility of establishing a regional settlement intermediary. Since its establishment in 2013, the Asian Development Bank has been acting as secretariat to the CSIF, and CSIF meetings are held three times a year back-to-back with the ASEAN+3 Bond Market Forum.



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**Workshop Schedule**

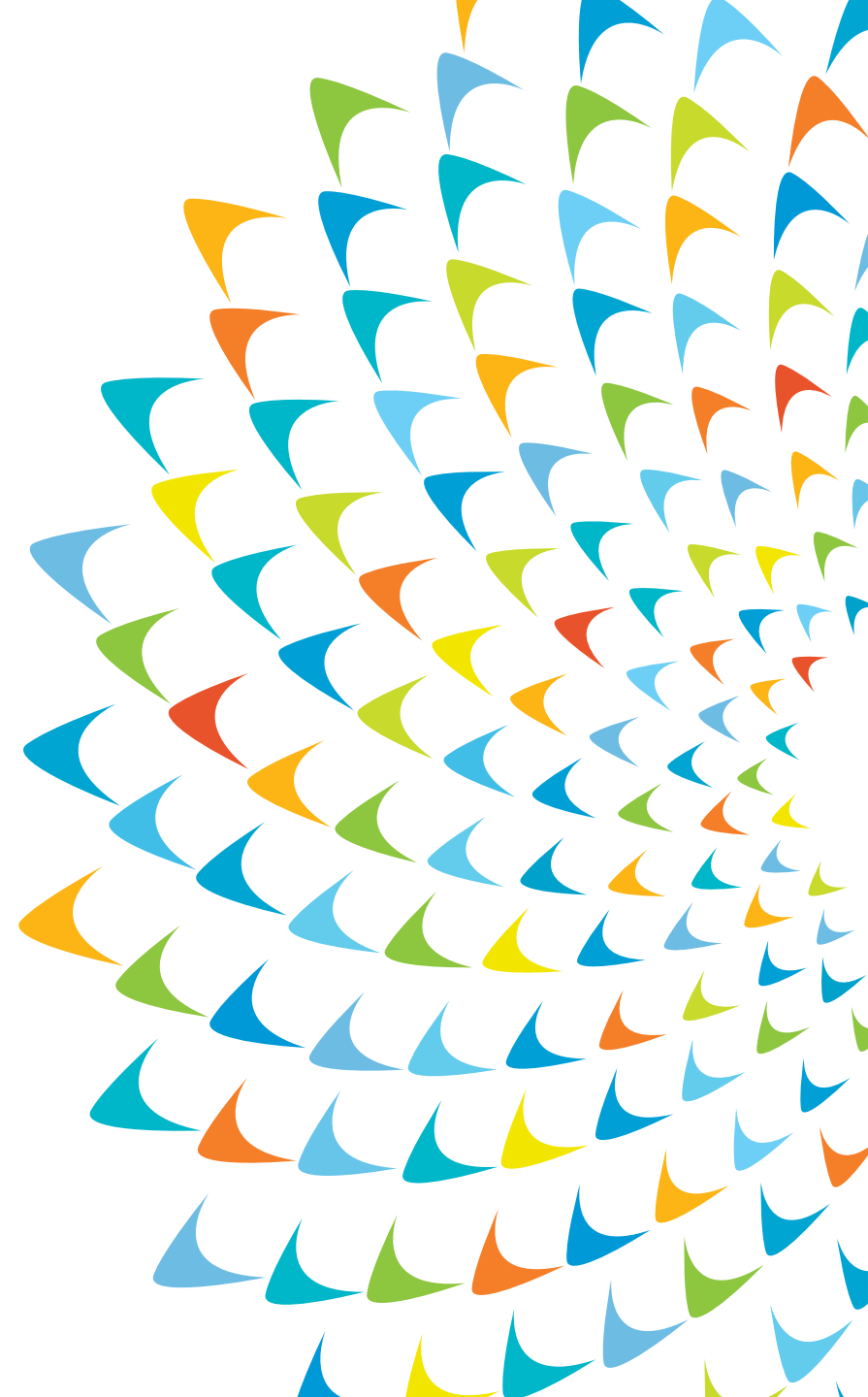
Master of webinar: Byung-Wook Ahn, Financial Sector Specialist, ADB	
Time	Session
15:00 – 15:05	<b>Opening Remarks</b> <ul style="list-style-type: none"><li>Satoru Yamadera, Principal Financial Sector Specialist, ADB</li></ul>
15:05 – 15:25	<b>SESSION 1: Regulatory Change and Cross-Border Use of Collateral in ASEAN+3</b> <ul style="list-style-type: none"><li>Evolution of global collateral markets</li><li>Overview on operating frameworks for cross-border collateral in ASEAN+3</li><li>Possible ways to expand eligible collateral in the markets</li></ul> <ul style="list-style-type: none"><li>Byung-Wook Ahn, Financial Sector Specialist, ADB</li></ul>
15:25 – 15:45	<b>SESSION 2: Collateral Market Landscape in Europe</b> <ul style="list-style-type: none"><li>Overview on ECB operating framework for collateral</li><li>Standardization, harmonization, and market integration efforts of ECB</li></ul> <ul style="list-style-type: none"><li>João Amaro, Senior Market Infrastructure PM Expert, Directorate General Market Infrastructure and Payments, European Central Bank (ECB)</li><li>Gary McNamara, Senior Market Infrastructure Expert, DG Market Infrastructure and Payments, European Central Bank (ECB)</li></ul>
15:45 – 16:15	<b>SESSION 3: Collateral Service Providers and Their Collateral Solutions</b> <ul style="list-style-type: none"><li>Overview on current collateral management service offerings</li><li>Innovative services and approaches to new types of transaction</li><li>Services involving local currency collateral from ASEAN+3 markets</li></ul> <ul style="list-style-type: none"><li>Duncan Scott, Product Management Consultant, MTU, Depository Trust &amp; Clearing Corporation (DTCC)</li><li>Davin Cheung, APAC Head, Banking, Funding &amp; Financing Products, Clearstream Banking S.A.</li></ul>
16:15 – 16:45	<b>SESSION 4: Collateral Services of CSDs in Asia</b> <ul style="list-style-type: none"><li>Overview on current collateral services</li><li>Future infrastructure upgrade or expansion plans</li></ul> <ul style="list-style-type: none"><li>Fei Tao, Lead Manager, Collateral Management Center, China Central Depository &amp; Clearing Co., Ltd (CCDC)</li><li>Keukjin Choi, Team Head of Derivatives and Collateral Services Team, Securities Collateral Department, Korea Securities Depository (KSD)</li></ul>
16:45 – 17:00	<b>Q&amp;A</b>
17:00 – 17:05	<b>Closing Remarks</b> <p>Satoru Yamadera, Principal Financial Sector Specialist, ADB</p>
End of Webinar	



# **WELCOME**

**CSIF Workshop on  
Cross-Border Use of Local Currency  
Collateral of ASEAN+3**

**Friday, 4 December 2020  
3:00 PM (Manila Time)  
via Zoom**





# WORKSHOP SCHEDULE

## Cross-Border Use of Local Currency Collateral of ASEAN+3

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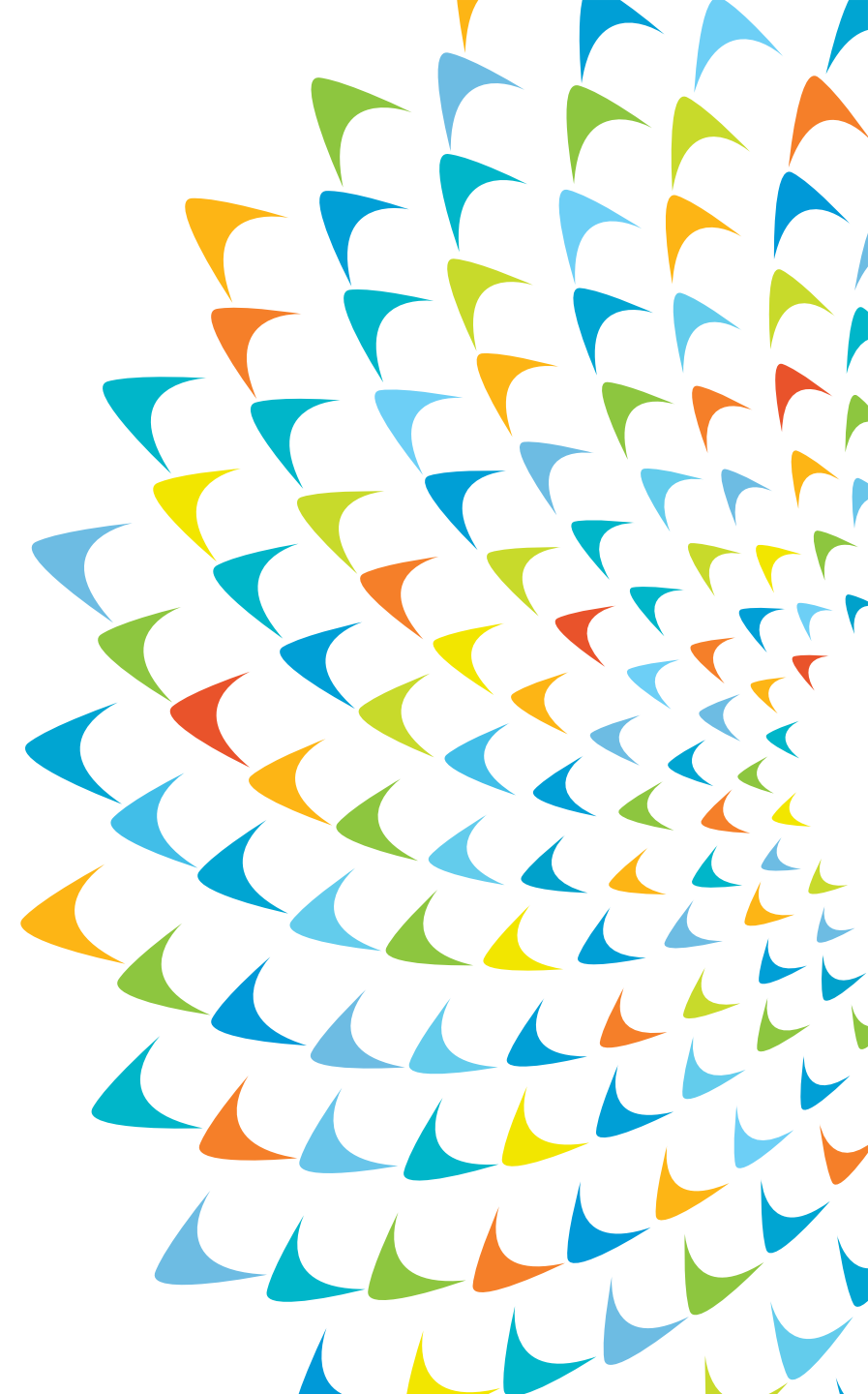
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# OPENING REMARKS

**Satoru Yamadera**

Principal Financial Sector Specialist  
Asian Development Bank



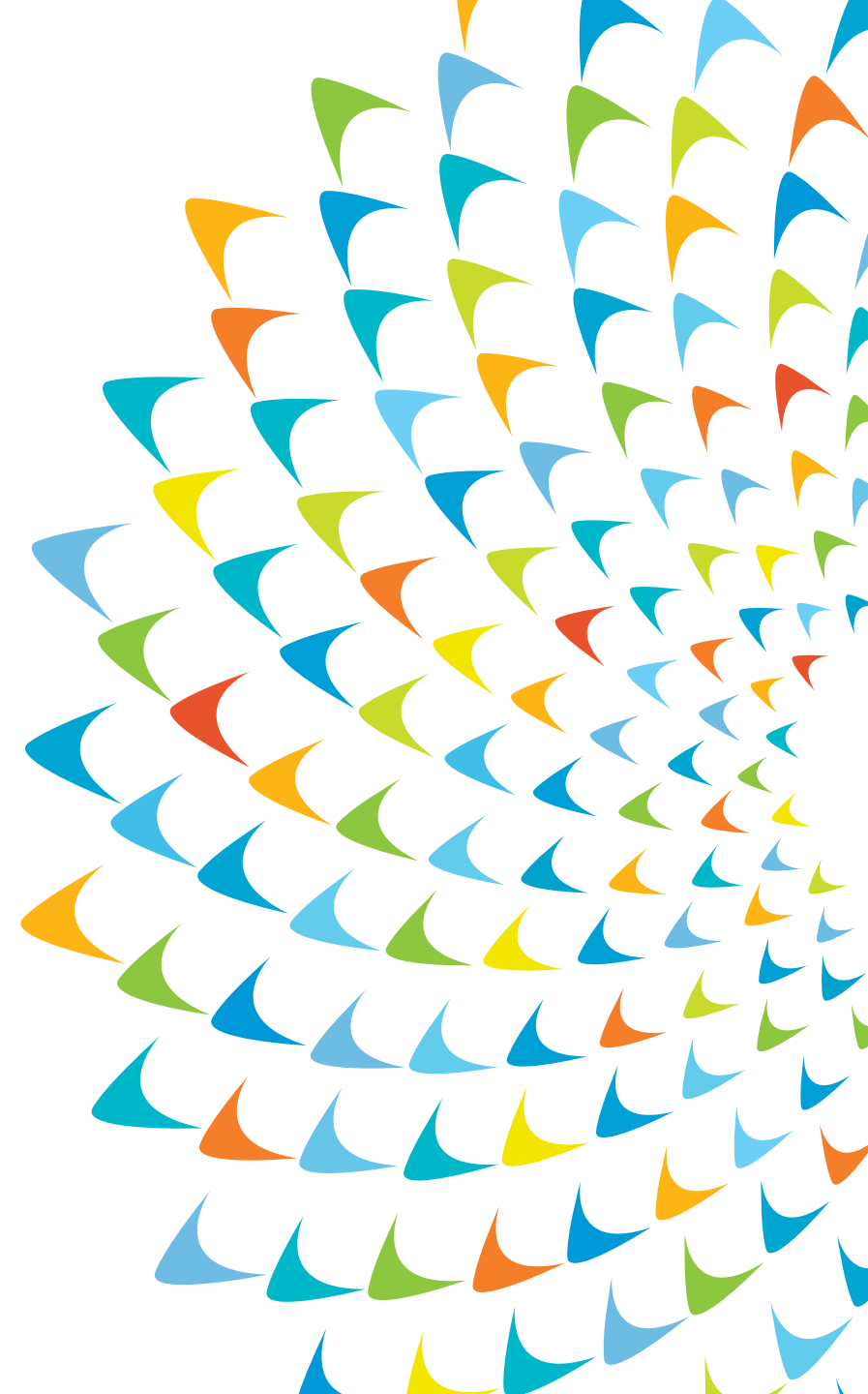


## SESSION 1

# Regulatory Change and Cross-Border Use of Collateral in ASEAN+3

**Byung-Wook Ahn**

Financial Sector Specialist  
Asian Development Bank

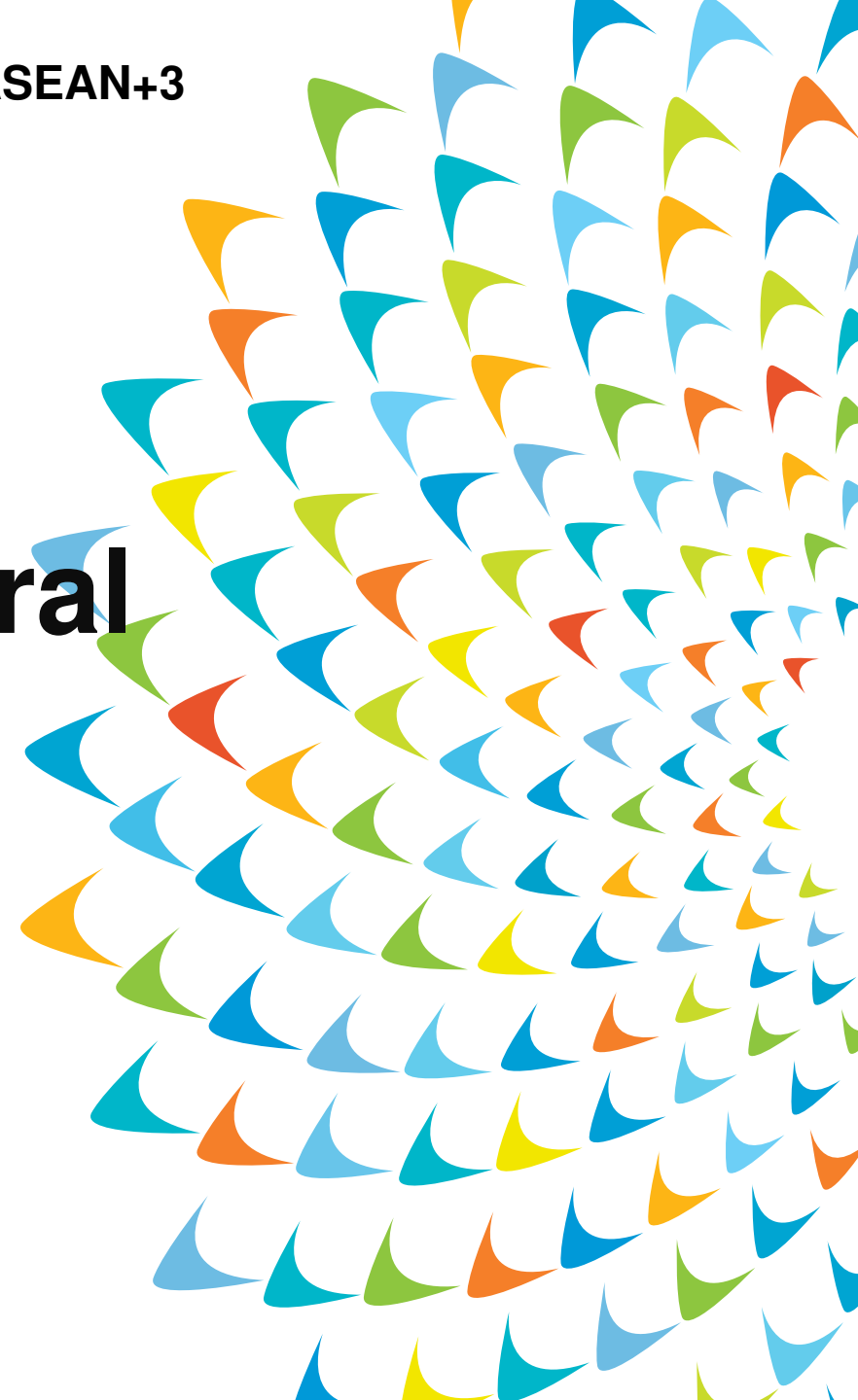


# **Session 1**

# **Regulatory Change and Cross-Border Use of Collateral in ASEAN+3**

December 4, 2020

**Byung-Wook (Andrew) Ahn**  
Financial Sector Specialist  
Asian Development Bank  
[bahn@adb.org](mailto:bahn@adb.org)



# Collateral Market Landscape



# Collateral Market Evolution

## **Before** the 2008 financial crisis

- Presumed abundance of liquidity and leverage
- Low demand for collateral
- Fragmented and imperfect collateral management



## **During** the crisis

- Some products, severely under-collateralized
- Supply of credit dried up



## **After** the crisis

- Collateral-required transactions increased
- High demand for quality collateral
- Effective collateral management became important

# Regulatory Overhaul for Wholesale Financial Markets

## **European Regulation on OTC Derivatives (EU legislation, 2012)**

- TR reporting, CCP clearing and other risk mitigation for applicable OTC derivatives

## **Liquidity coverage ratio /net stable funding ratio (BCBS, 2013 - 2014)**

- LCR: a firm's durability against short-term liquidity shocks
- NSFR: a firm's longer term resilience

## **Shadow banking rules (FSB, 2013 - 2015)**

- Mandatory min. haircuts for non-centrally cleared securities financing transactions

## **MiFID II (EU legislation, 2018)**

- Created a new derivatives trading venue, organized trading facility (OTF)
- Requires clearing-eligible derivatives to be traded on regulated trading venues

## **■ Uncleared margin rules (Basel committee/IOSCO, 2016 - )**

# Regulatory Overhaul for Wholesale Financial Markets – UMR

- Regulations for variation margin(VM) and initial margin(IM) on U-OTC
- Implementation timeline
  - VM implemented in 2017 and IM being slowly phased in based on AANA of a firm

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
> 3 trillion	> 2.25 trillion	> 1.5 trillion	> 0.75 trillion	> 50 billion	> 8 billion
Sep 2016	Sep 2017	Sep 2018	Sep 2019	Sep 2021	Sep 2022

Additionally delayed due to COVID-19

- New practice: bilateral IM posting and IM to be held in segregated account
- Tasks of newly in-scope counterparties – operational challenges
  - Assess products/entities in scope and calculate AANA (group level)
  - Prepare, update and negotiate all CSAs in line with regulatory requirements
  - IM calculation, collateral eligibility checks, and daily margin monitoring
  - Collateral account segregation and no re-use or re-hypothecation

# Collateral Usage in Wholesale Financial Markets

Market	Collateral Usage.	Legal Agreement Required	Related Regulations
<b>Repo</b>	Collateral (bonds, equities) is delivered to secure cash placements.	Global Master Repo Agreement (GRMA). MRA in the US. Local market repo agreement.	Financial Stability Board (FSB) frameworks.* Minimum haircut standards for non-centrally cleared securities financing transactions (SFTs) are yet to be fully implemented.
<b>Securities Lending</b>	Cash or other collateral is delivered to secure loaned securities.	Global Master Securities Lending Agreement (GMSLA). Local market agreement.	FSB frameworks.* Minimum haircut standards for non-centrally cleared securities financing transactions (SFTs) are yet to be fully implemented.
<b>Exchange Traded Derivatives(ETD)</b>	Collateral in margin process is exchanged between trading entity and CCP. Initial Margin (IM) and Variation Margin (VM).	Exchange-specific documents.	Dodd-Frank Act / European Regulation on OTC Derivatives (EMIR).
<b>OTC Derivatives (cleared)</b>		CCP product specific operational legal agreement.	
<b>OTC Derivatives (uncleared)</b>	Collateral is moved between trading counterparties. IM requirements are being introduced in addition to VM.	ISDA Credit Support Annex (CSA) to the Master Service Agreement (MSA).	Uncleared Margin Rules (UMR) under EMIR. Basel Committee on Banking Supervision (BCBS) / International Organization of Securities Commissions (IOSCO) / national implementation in numerous jurisdictions.
<b>Cross Product Margining</b>	Legally enforceable netting arrangements across various collateral products.	MSA.	Complex legal and operational requirements (requiring client specific solutions).

“Policy framework for addressing shadow banking risks in securities lending and repos” (2013) and “Regulatory framework for haircuts on non-centrally cleared securities financing transactions” (2015)

Source: BNY MELLON (2015) with modification and updates by the presenter

# Demand-spurring factors and Central Bank's policy implication

## Strengthened regulations

- Continued move from unsecured to secured funding
- Tightened capital and liquidity requirements
- Mandatory central clearing of certain OTC derivatives
- Margin requirements for uncleared OTC derivatives
- Reduced level of re-use and re-hypothecation

## Other factors

- Siloed market infrastructures
- Need to maintaining HQLAs for regulatory buffer
- Different eligibility criteria across markets
- Large central bank holdings

**Persistent  
low policy rates**



**Unconventional  
monetary policy**

- Extended liquidity
- Asset purchases
- Forward guidance
- Negative policy rates



**CB's collateral  
framework**

# Cross-Border Use of Collateral in ASEAN+3

# Impact of Central Bank Collateral Framework

## Tools for liquidity management

- Open market operations (OMOs)
- Standing liquidity facilities (SFs)
- Emergency liquidity assistance (ELA)

## Ways of influence

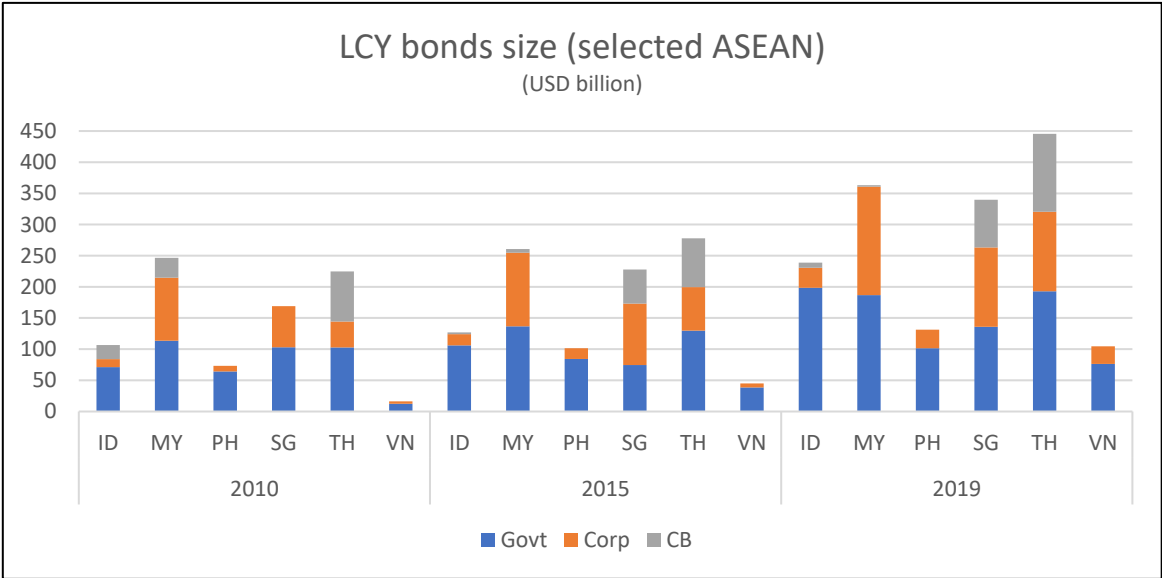
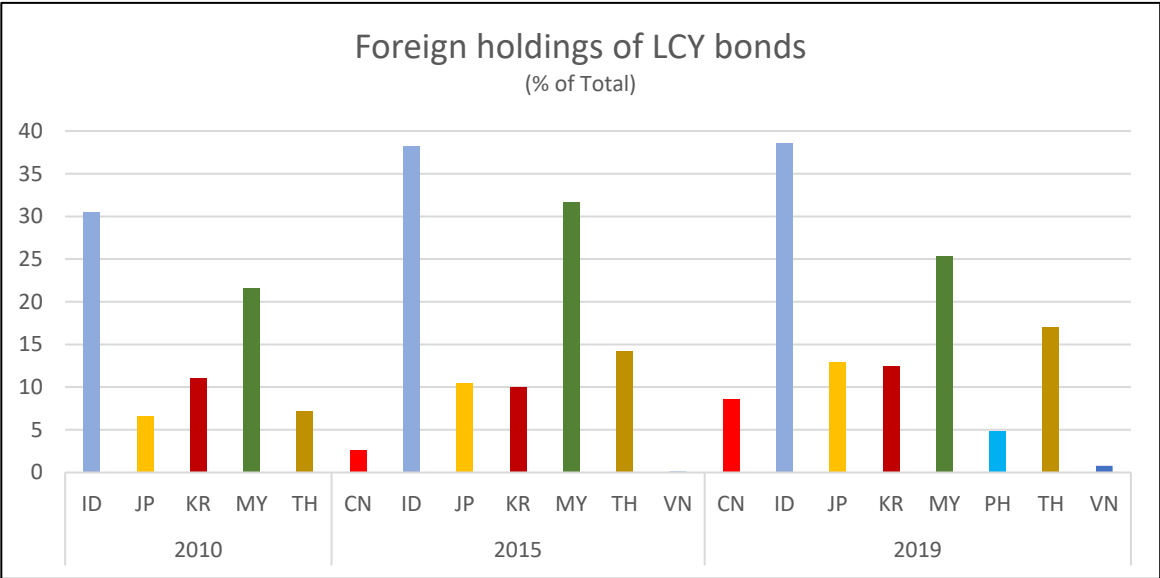
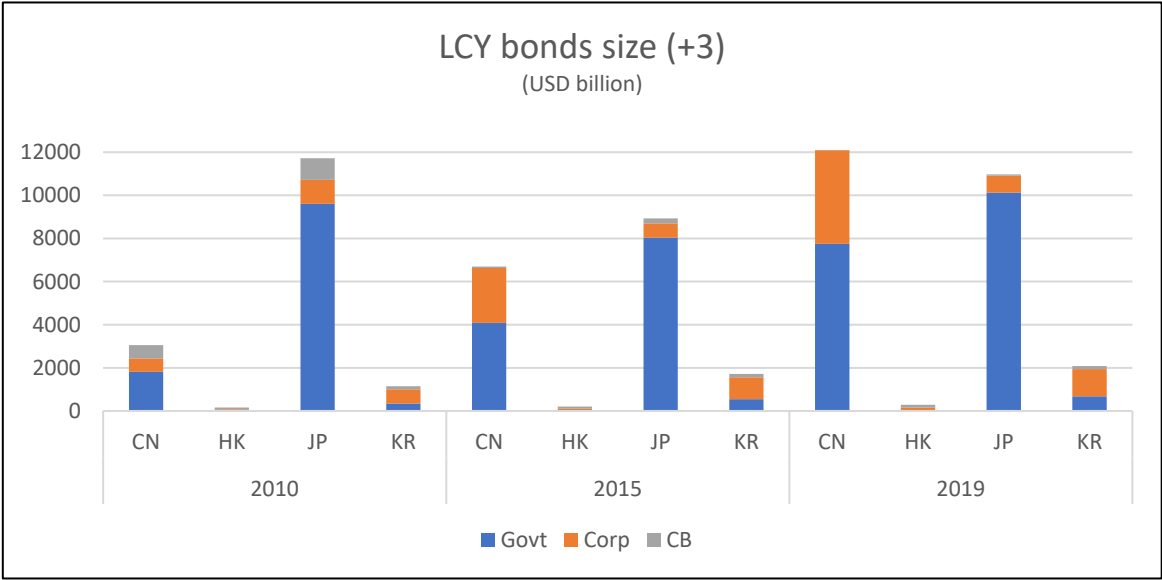
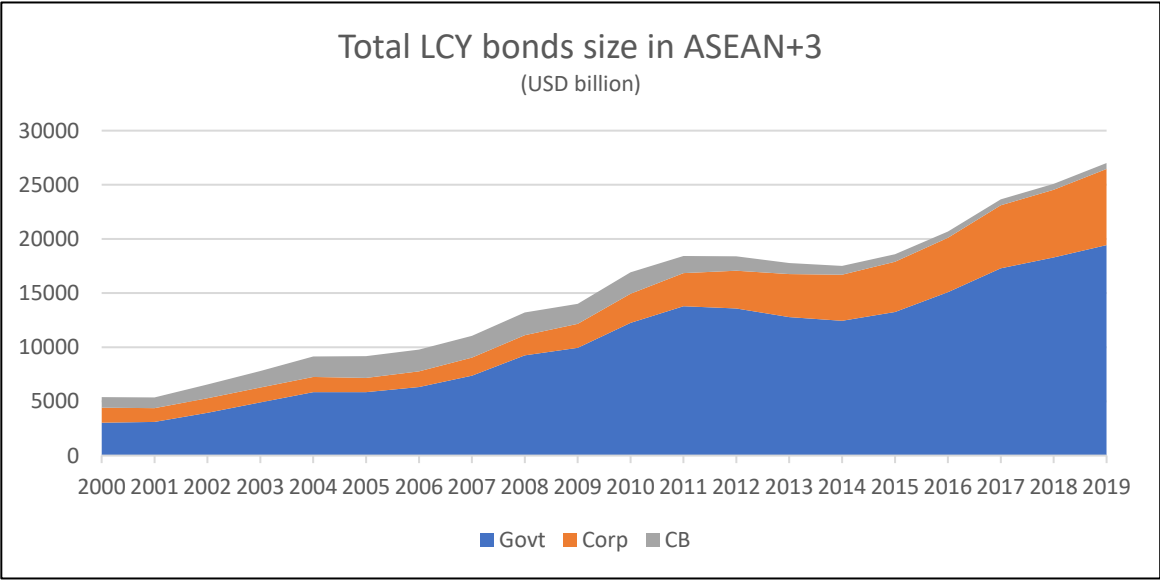
- Availability & composition
- Eligibility criteria, haircuts, Access policy, operating parameters

## Why matters?

- Influences overall monetary conditions
- Supports preserving financial stability
- Functions even at the zero lower bound for policy rates

**Does it matter in ASEAN+3?**

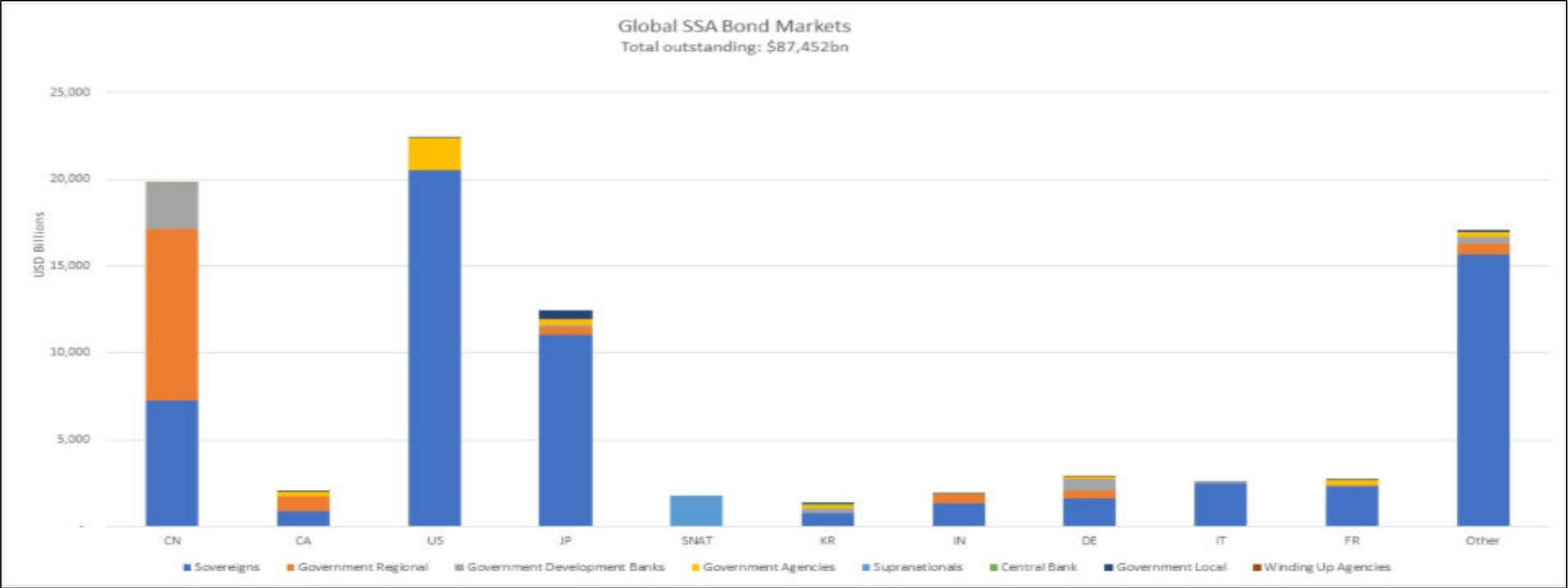
# ASEAN+3 Bond Markets: LCY Bond Markets



Source: AsianBondsOnline, ADB



# ASEAN+3 Bond Markets: global comparison



Global SSA: \$ 87.5 trillion (as of Aug 2020)

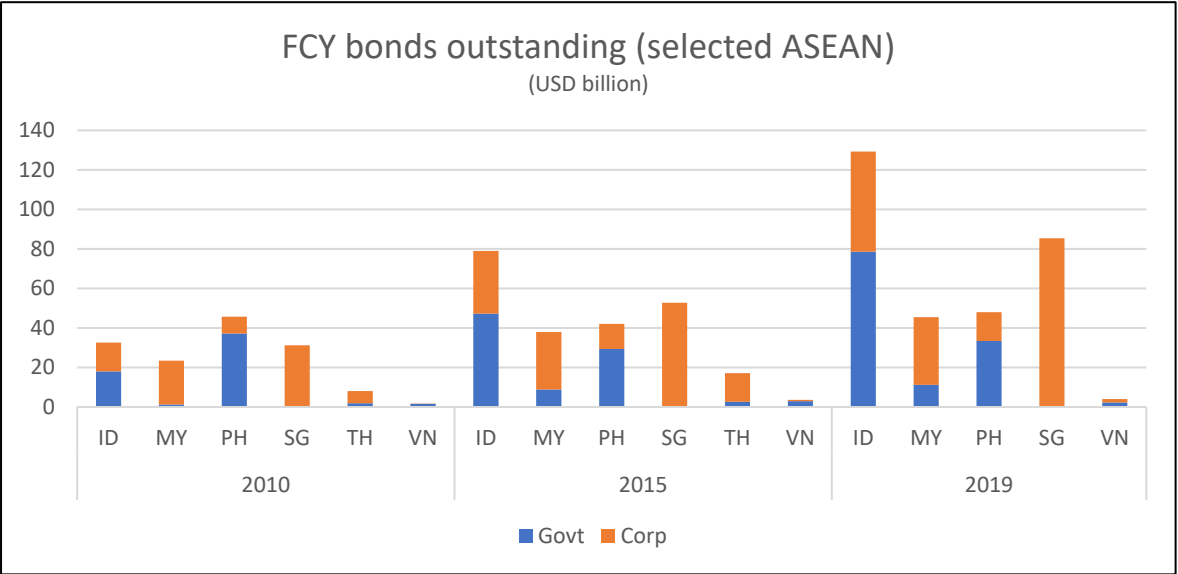
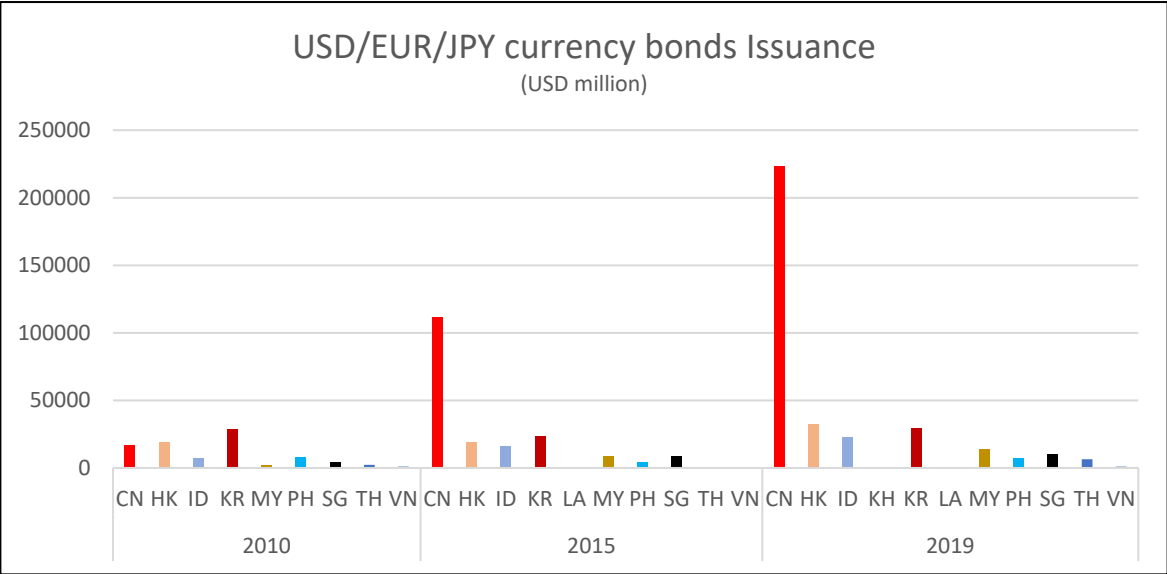
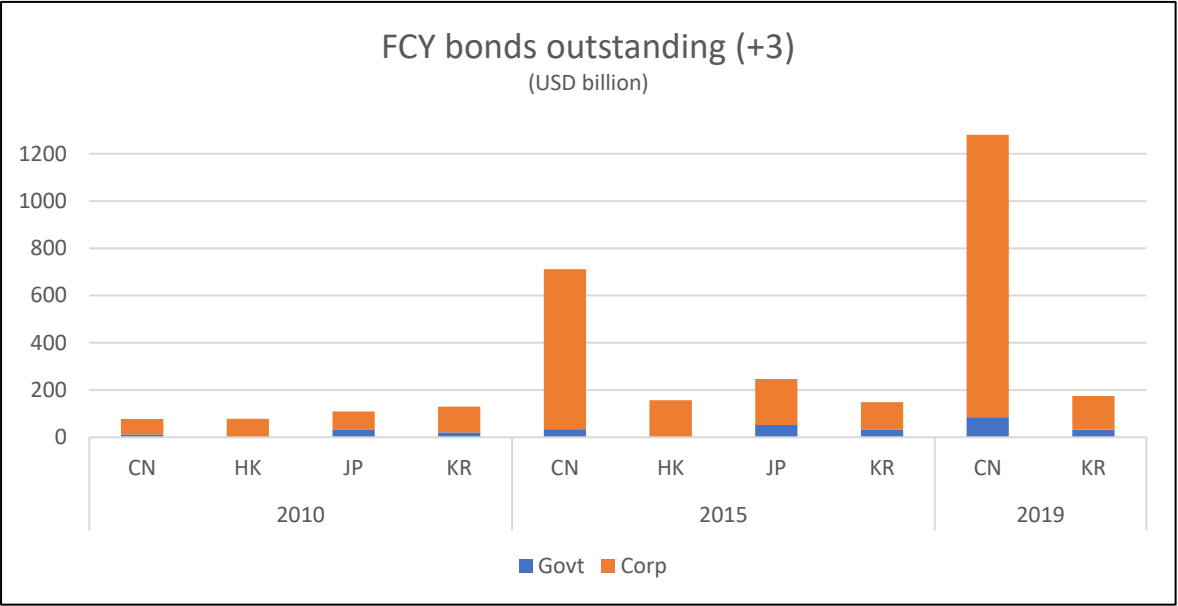
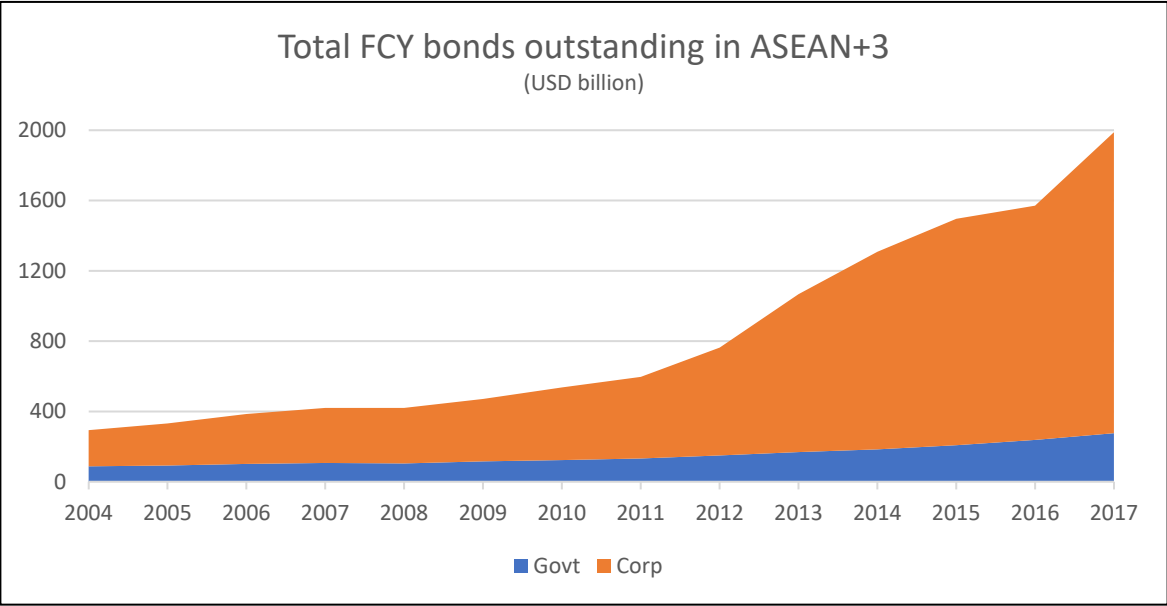
US SSA: \$ 22.4 trillion (as of Aug 2020)

European SSA: \$ 12.2 trillion (as of May 2020)

China SSA: \$ 19.4 trillion (as of Jul 2020)

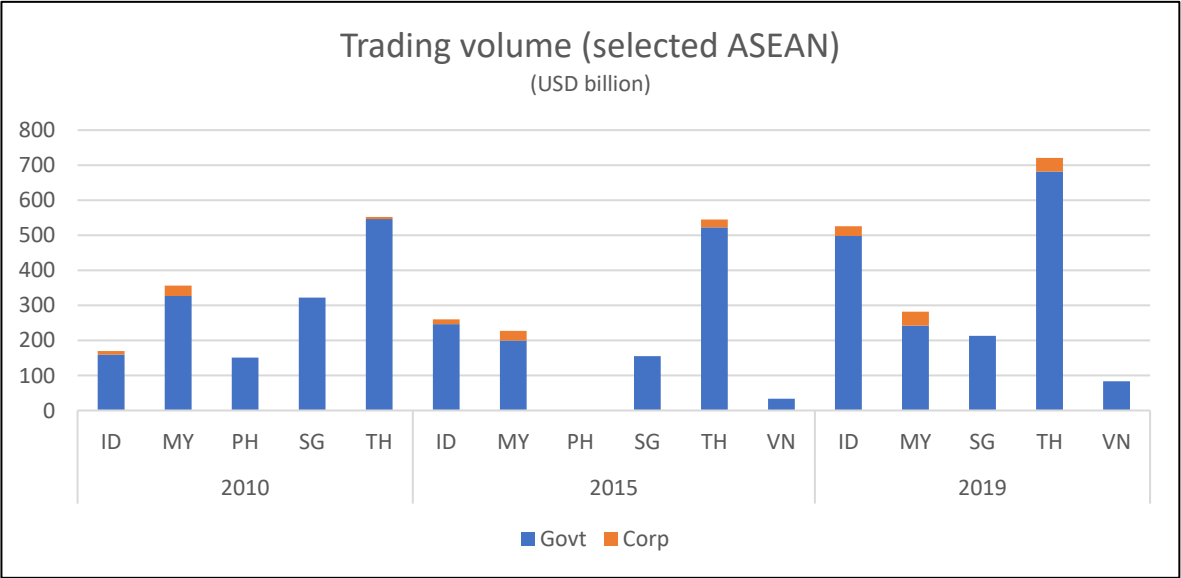
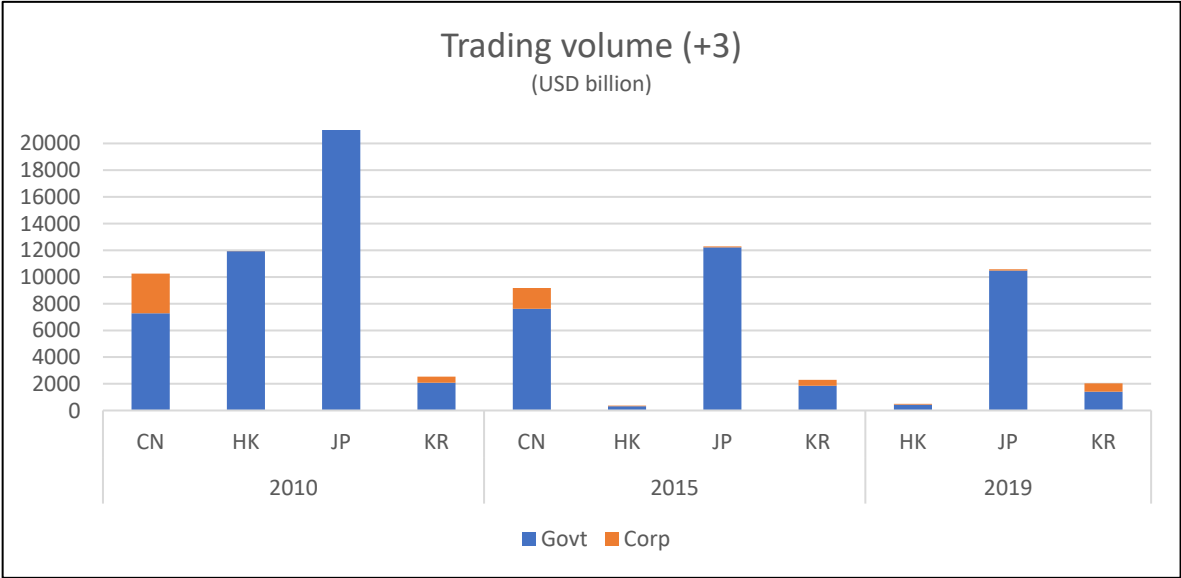
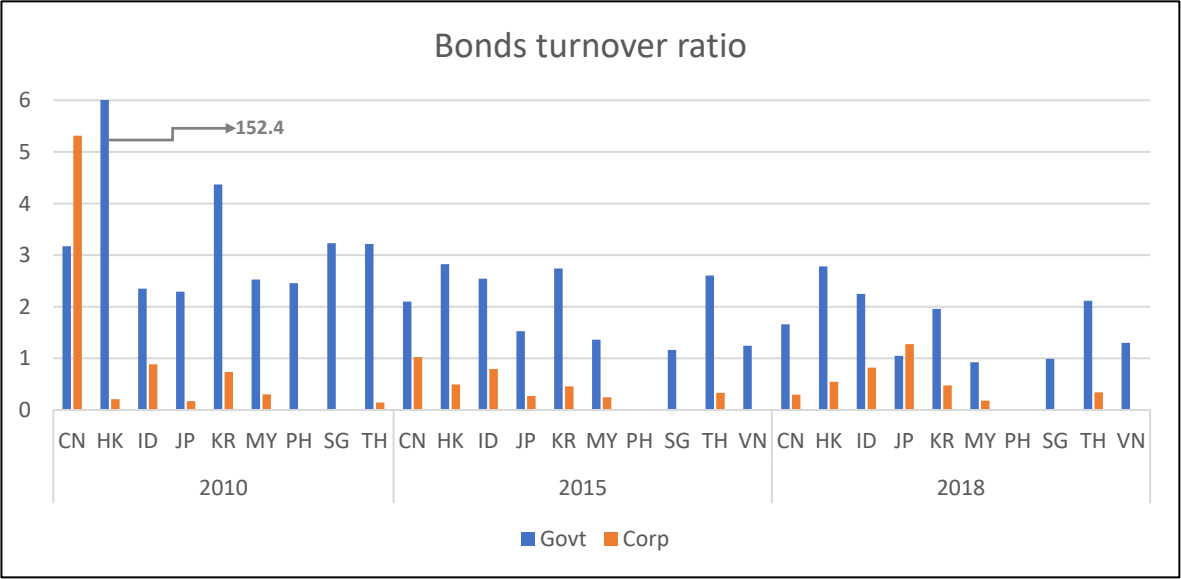
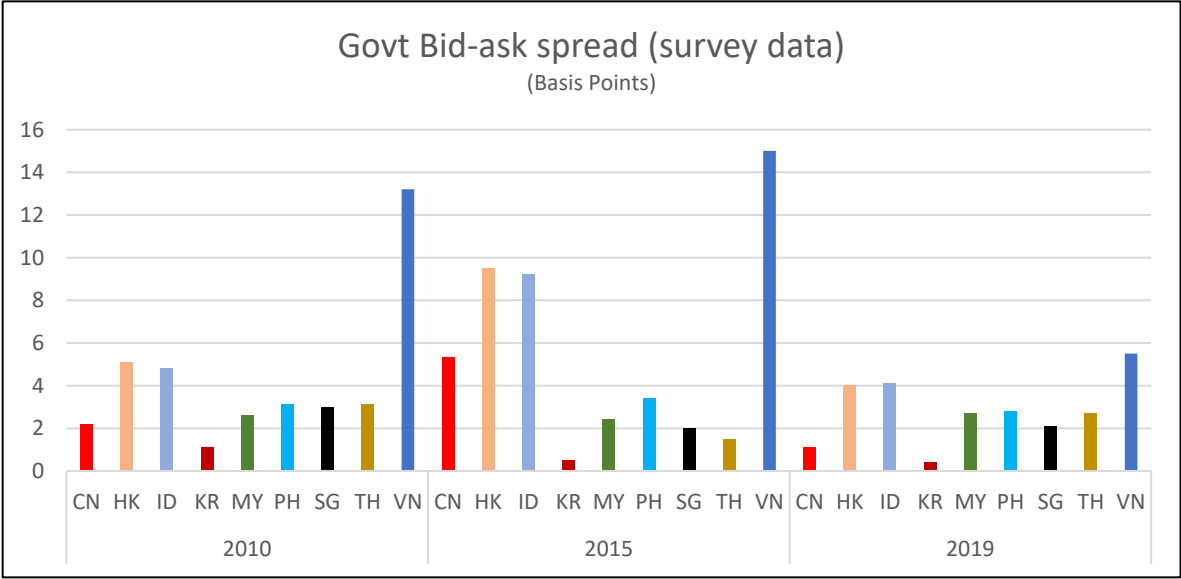
Japan SSA: \$ 12.3 trillion (as of Jul 2020)

# ASEAN+3 Bond Markets: FCY Bonds Outstanding



Source: AsianBondsOnline, ADB

# ASEAN+3 Bond Markets: Market Liquidity



Source: AsianBondsOnline, ADB

# Foreign Collateral Eligibility of ASEAN+3 Central Banks

<b>AMBD</b> (Brunei)	
<b>NBC</b> (Cambodia)	
<b>BI</b> (Indonesia)	<ul style="list-style-type: none"> <li>• <b>CBCA</b> with <b>BOJ</b></li> </ul>
<b>BOL</b> (Lao PDR)	
<b>BNM</b> (Malaysia)	<ul style="list-style-type: none"> <li>• <b>CBCA</b> with <b>MAS</b> and <b>BOT</b></li> <li>• Standing Facility: O/N repo <ul style="list-style-type: none"> <li>– Non-ringgit secs by EMEAP govts* in USD, GBP, EUR, JPY, EMEAP currencies</li> </ul> </li> </ul> <p>* AUS, <b>CHN</b>, HKG, <b>IDN</b>, <b>JPN</b>, <b>KOR</b>, <b>MYS</b>, NZL, <b>PHL</b>, <b>SGP</b>, and <b>THA</b></p> <ul style="list-style-type: none"> <li>– USD, GBP, EUR, JPY secs by MDBs or MFIs</li> <li>– US Treasuries and UK Gilts</li> </ul>
<b>CBM</b> (Myanmar)	

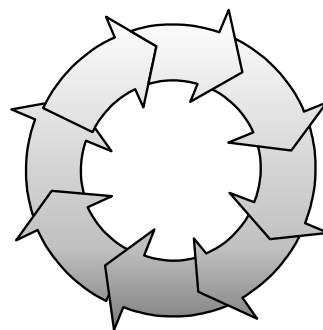
<b>BSP</b> (Philippines)	<ul style="list-style-type: none"> <li>• <b>CBCA</b> with <b>BOJ</b></li> </ul>
<b>MAS</b> (Singapore)	<ul style="list-style-type: none"> <li>• Standing Facility(O/N) under <b>CBCA</b> with 8 CBs <ul style="list-style-type: none"> <li>– <b>BNM</b>, <b>BOT</b>, <b>BOJ</b>, FRS(USA), BOE(GBR), DB(DEU), BDF(FRA), DNB(NLD)</li> </ul> </li> <li>• SGD Term Facility (28-day, 84-day) <ul style="list-style-type: none"> <li>– G10 + <b>CNH</b> and G10 currency* debt (AAA to BBB-) by foreign entities</li> </ul> </li> </ul> <p>* USD, EUR, GBP, AUD, CAD, CHF, NZD, SEK, NOK, <b>JPY</b></p>
<b>BOT</b> (Thailand)	<ul style="list-style-type: none"> <li>• <b>CBCA</b> with <b>BOJ</b></li> </ul>
<b>SBV</b> (Viet Nam)	
<b>PBOC</b> (China)	
<b>BOJ</b> (Japan)	Government bonds of USA(USD), GBR(GBP), DEU(EUR), FRA(EUR) issued in Japan
<b>BOK</b> (Korea)	

# Central Bank Cross-Border Collateral Arrangements (CBCAs)

- Challenge of globalization → managing liquidity in multiple currencies/jurisdictions
- Cross-border use of collateral → an effective measure to mitigate the pressure
- CBCAs are well-activated in advanced economies

## Expansion of CBCAs in ASEAN+3

- Boosts the use of LCY collateral
  - Diversifies collateral portfolio
  - Facilitates interoperability
- ➔ Positive effect on monetary policy, financial stability and PSSs



## Consideration for implementation

- Market size & int'l orientation
- Liquidity and collateral demand
- Presence of int'l players
- Jurisdictional conflict, regulation, taxation and FX controls, etc.

# Use of Foreign collateral and Its Ensuing Effects for CBs

Collateral categories	More collateral for domestic use?	Main risk to CB	How to manage the risks
Foreign currency collateral	Yes	FX risk	Haircut, margin call, only countries with a sound macro-economic policy
Collateral issued abroad	Yes	Legal risk  Operational risk	Only collateral from countries with which good procedural agreements have been made and where local legal expertise can be relied on  Only collateral which is administratively comparable to domestic collateral
Collateral located abroad	Possibly but not necessary	Operational risk  Legal risk	Operational agreements on reliable and rapid transfers; which out for time zone problems, especially if the collateral is required for acute liquidity needs  Clear legal agreements with familiar jurisdictions

Source: How does cross-border collateral affect a countries' central bank and prudential supervisor?, 2009

# Effect of Different Foreign Collaterals on a CB's Assignments

CB's Task	Monetary policy	Payment systems	Financial stability	Prudential supervision	Effectiveness/efficiency of internal organization
Foreign currency collateral	Positive, as financial institutions can take more part in monetary operations	Positive, as lower costs allow of pledging more collateral at CB, so that potentially more intraday credit can be obtained	Positive, as lower costs allow of pledging more collateral at CB to absorb shock	Limited negative effect on account of exchange rate risk	Limited negative effect on account of exchange rate risk
Collateral issued abroad	Positive, as financial institutions can take more part in monetary operations	Positive, as lower costs allow of pledging more collateral at CB, so that potentially more intraday credit can be obtained	Positive, as lower costs allow of pledging more collateral at CB to absorb shock	Negative effect because institution may opt for more risk-bearing financial assets	Negative effect on account of legal complication and costs
Collateral located abroad	Positive insofar as liquidity need can be planned in advance, arrangement may be too slow for e.g. overnight facilities	Positive, but less suitable for solving acute payment problems	Ambiguous, depending on nature of shock and degree of economizing on collateral worldwide. Emergency collateral, generally positive effect	Potential negative effect if institutions economize on global quantity of liquidity and if supervisors engage in ring-fencing	Operational risks which may be considerable owing to, for example, time zone differences

# Sovereign Ratings of ASEAN+3

Rating agencies	R&I	RAM	Fitch	S&P
Brunei	-	A1	-	-
Cambodia	-	B1	-	B+
Indonesia	BBB+	BBB2	BBB	BBB
Lao PDR	-	B2	-	-
Malaysia	A+	gA2	A-	A-
Myanmar	-	B2	-	-

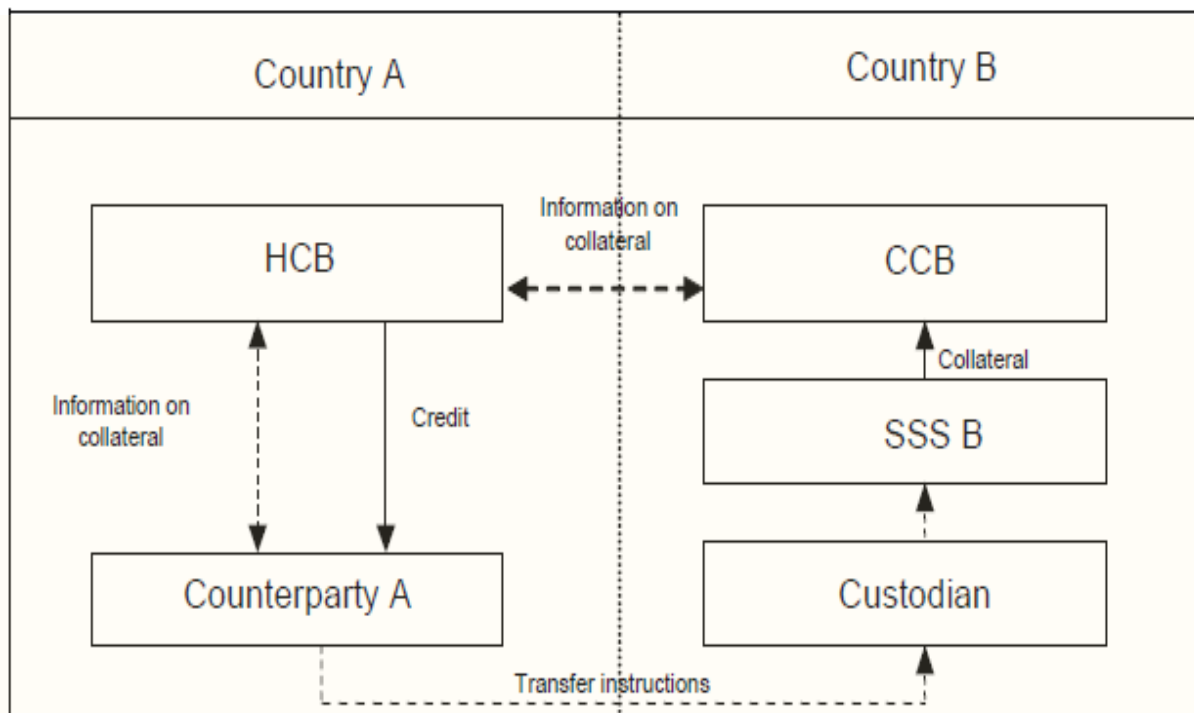
Source: AsianBondsOnline, ADB

Rating agencies	R&I	RAM	Fitch	S&P
Philippines	BBB+	BBB2	BBB	BBB+
Singapore	AAA	gAAA	AAA	AAA
Thailand	A-	BBB1	BBB+	BBB+
Viet Nam	BB	BB3	BB	BB
China	AA-	AA3	A+	A+
Japan	AA+	A1	A	A+
Korea	AA-	AA3	AA-	AA



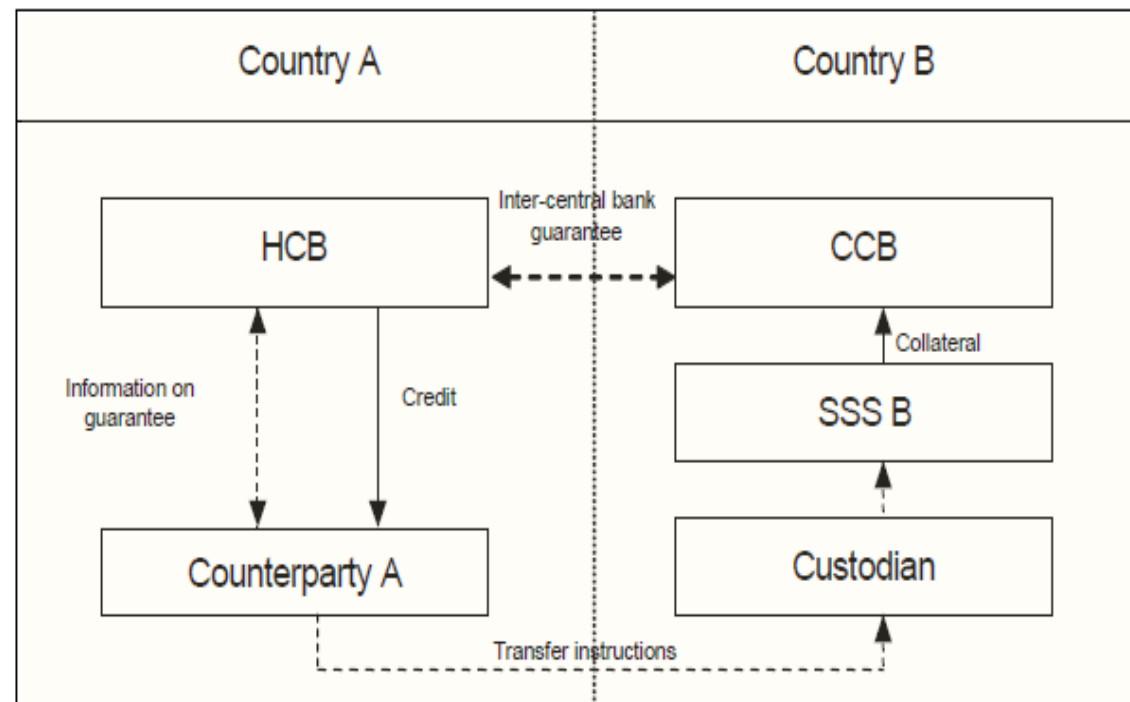
# Possible CBCA Models (1)

## ① Correspondent central banking model



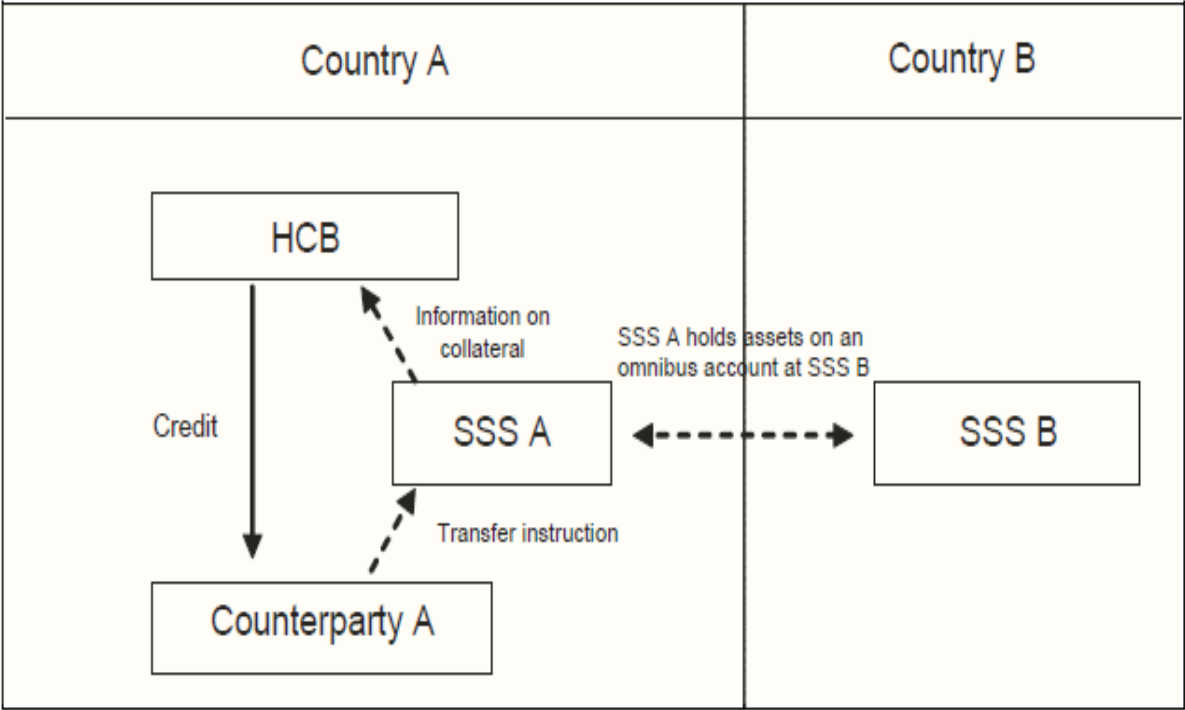
Source: Cross-border collateral arrangements, BIS, 2006

## ② Guarantee model



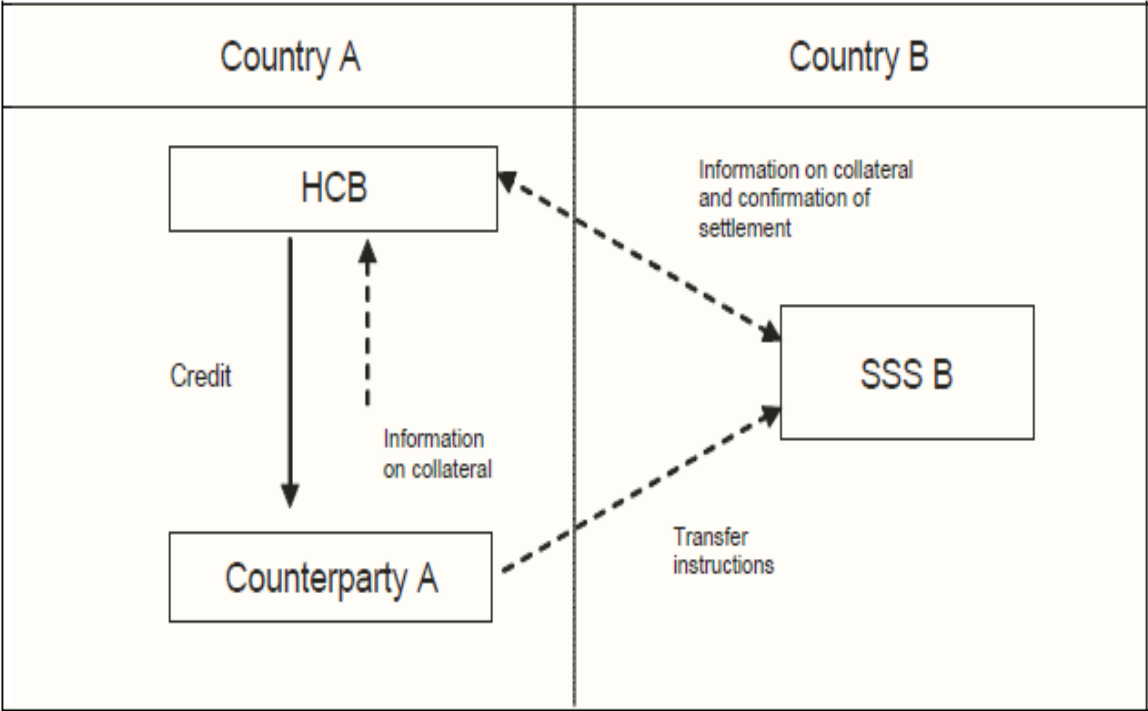
# Possible CBCA Models (2)

## ③ Links between SSSs

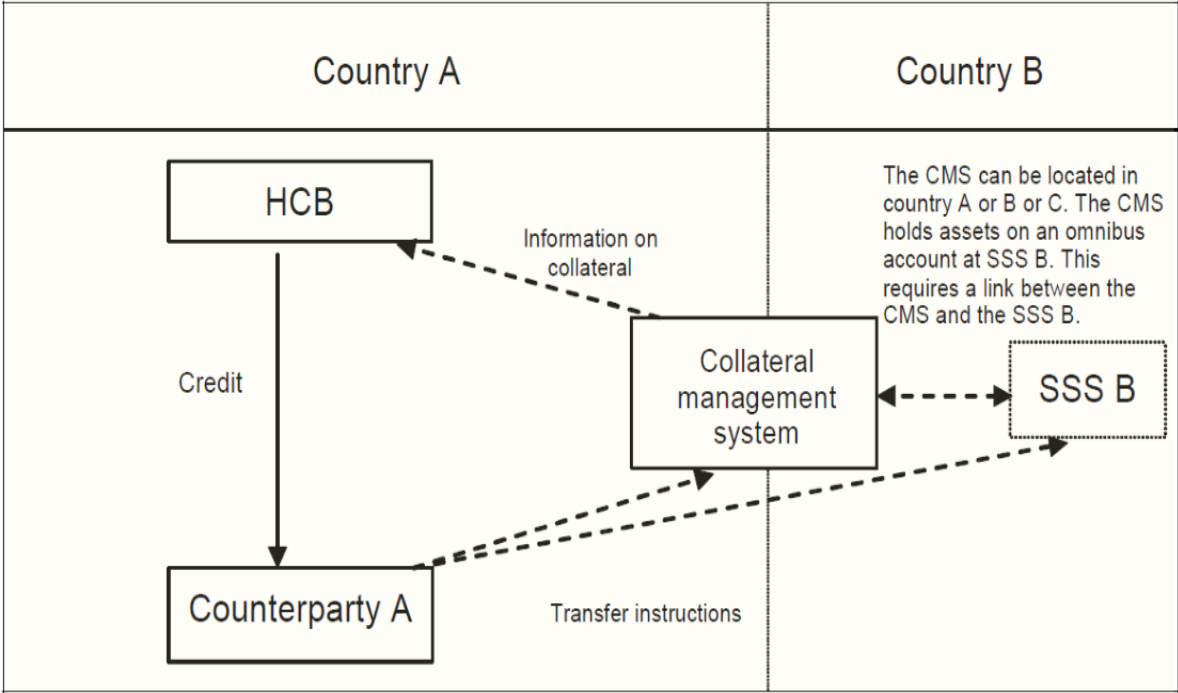


Source: Cross-border collateral arrangements, BIS, 2006

## ④ Remote access to an SSS



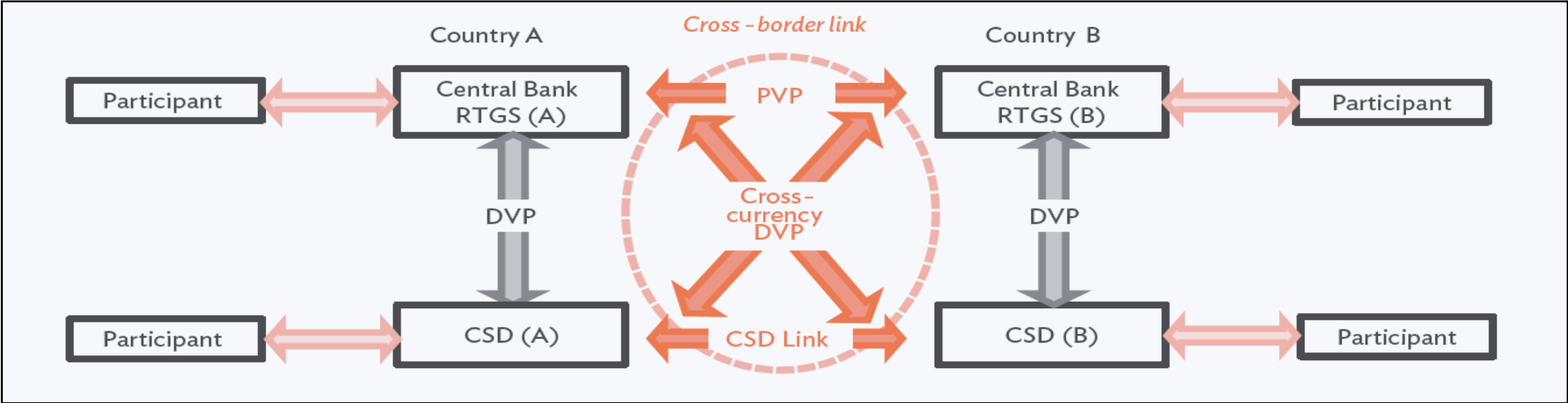
## ⑤ Recourse to a collateral management system (CMS)



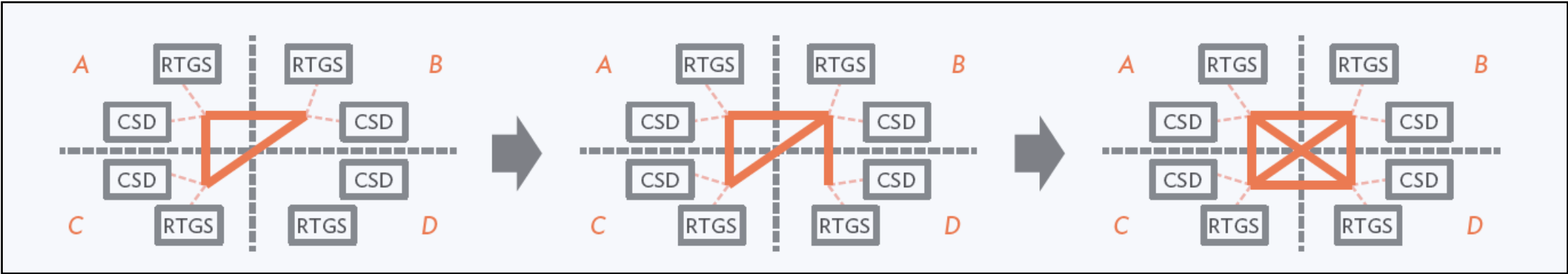
Source: Cross-border collateral arrangements, BIS, 2006

# CSD-RTGS Linkage Model

## CSD-RTGS Linkage

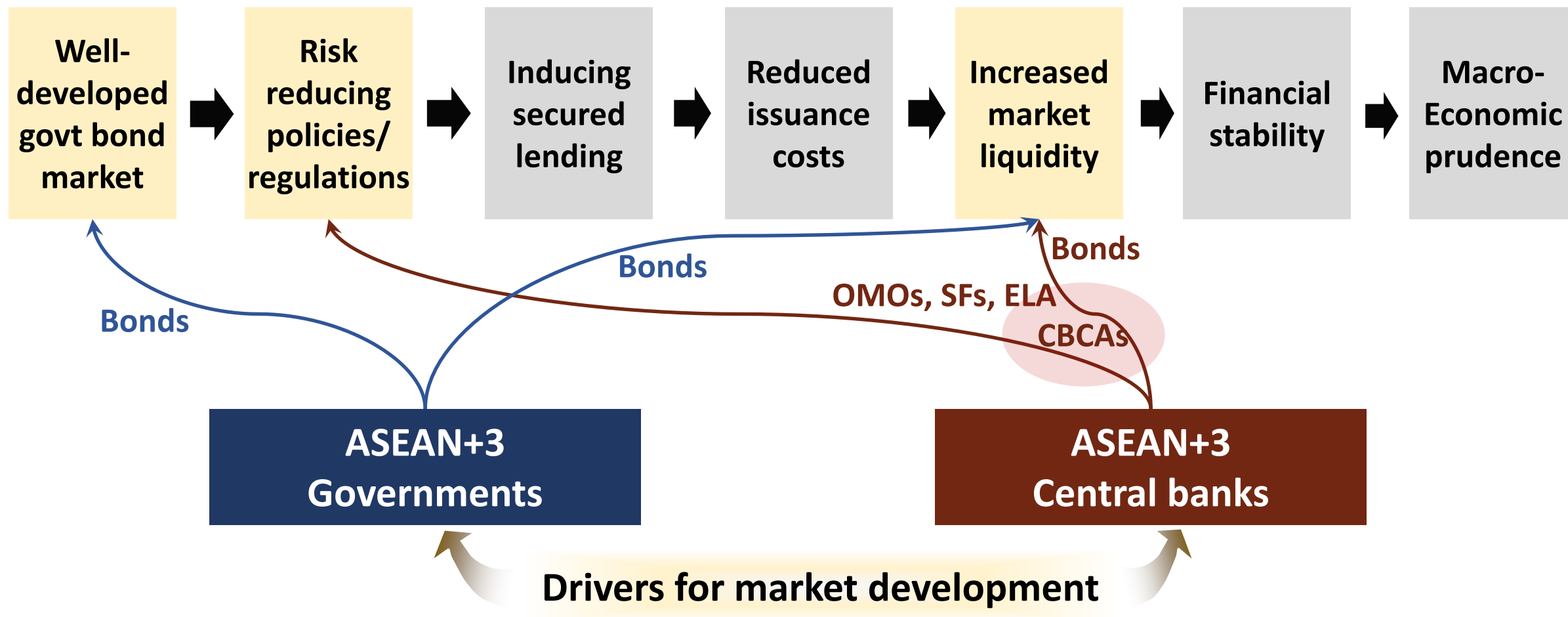


## Compatibility of CSD-RTGS Linkage



Source: Basic principles on establishing a regional settlement intermediary and next steps forward, ADB, 2014

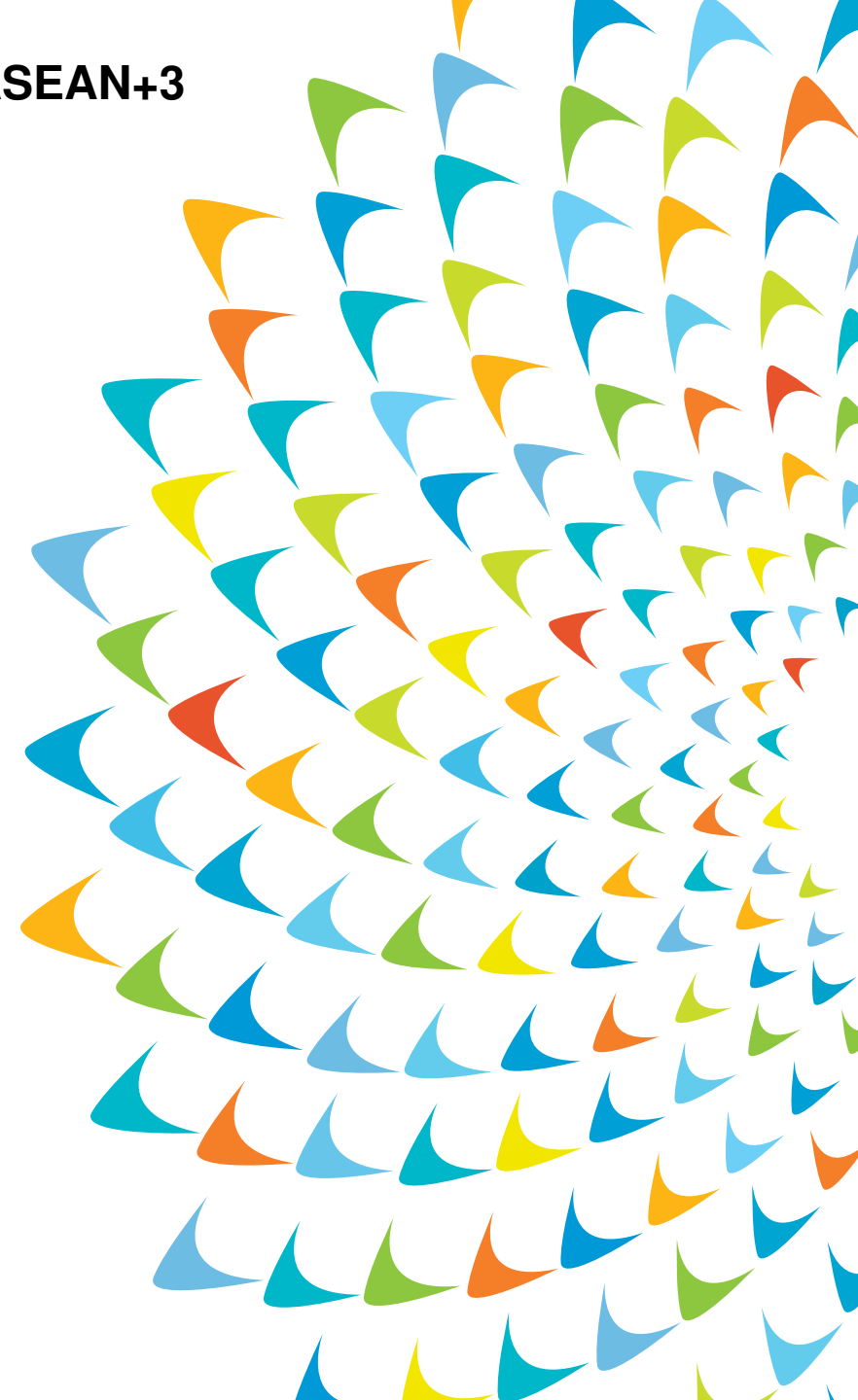
## Market-driven is better than government-driven in ASEAN+3 ??



**THANK YOU**

Byung-Wook (Andrew) Ahn

[bahn@adb.org](mailto:bahn@adb.org)

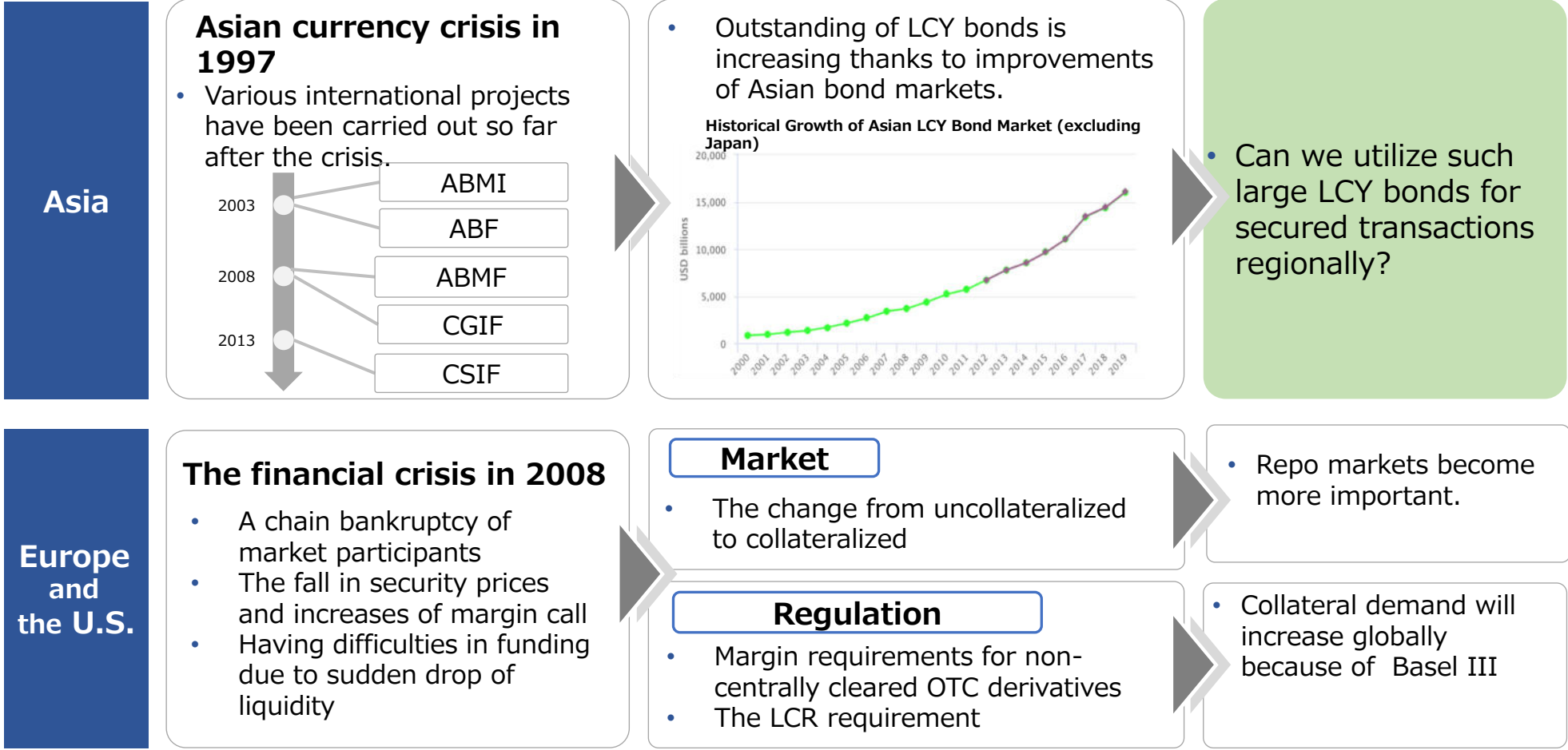




# Annex: previous discussion under the ASEAN+3 Bond Market Forum

# Backgrounds of discussion under ASEAN+3 Bond Market Forum

- In Europe and the US, secured or collateralized transactions have increased after the global financial crisis.
- Similarly, Asia will face increase in demand for more secured transactions.







## **Cross-border transaction survey by ABMF**

- Step 1: Identify possible cross-border transaction flows
- Step 2: Conceptualize typical cross-border transaction flows
- Step 3: Identify problems and impediments

# **Step 1: Identify possible cross-border transaction flows - Case studies**



# Case 1: Cash collateral (USD to USD) for CCP

## ● Outline

Japanese bank A (head office) collateralizes USD as a forward margin after receiving notice from CCP at U.S.A.

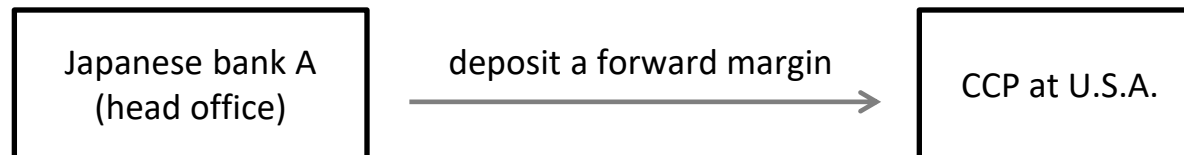
## ● Requirement

1. Japanese bank A has become a participant of the CCP.

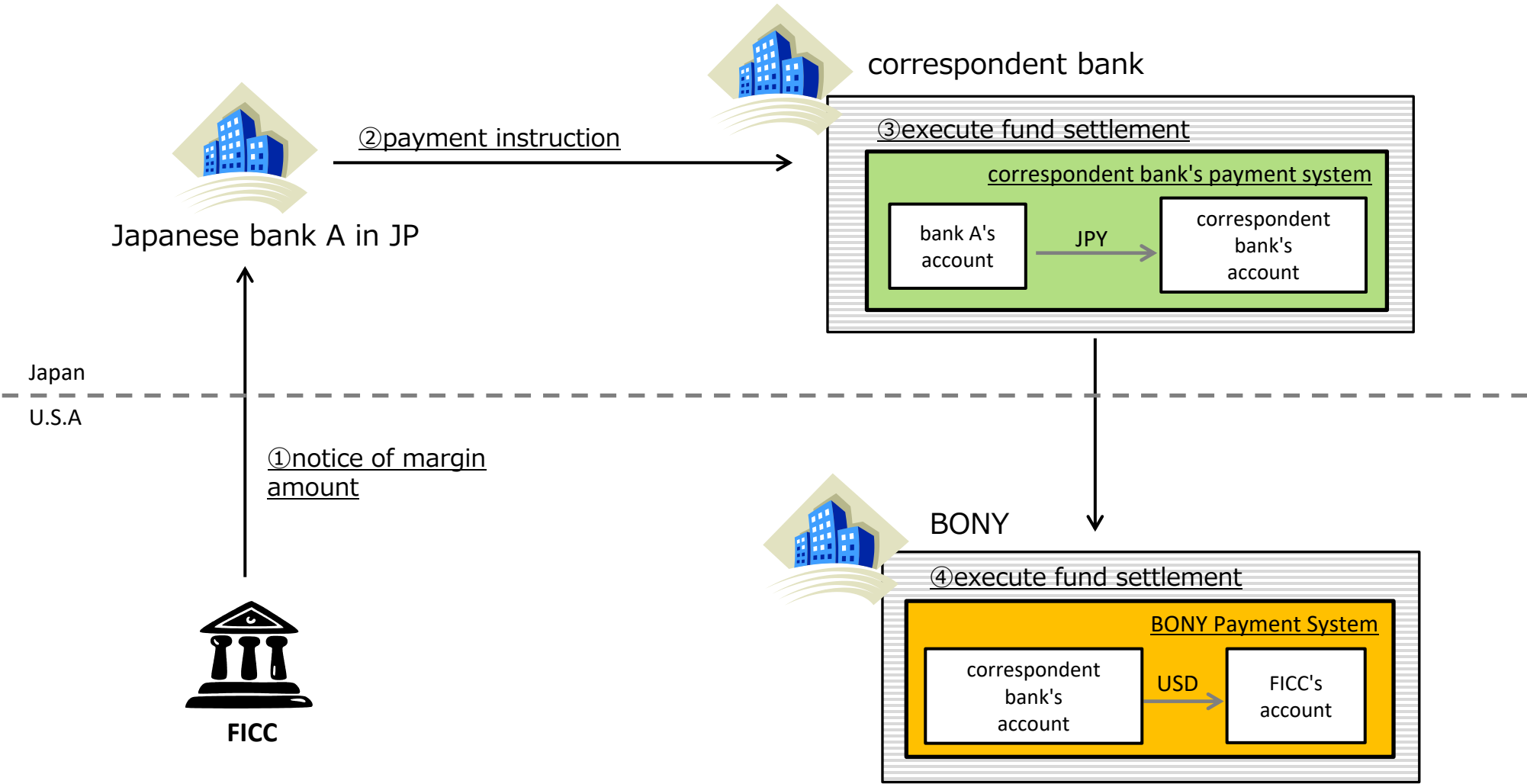
## ● Purpose & characteristics

FICC demands to deposit a forward margin to participants, because of avoiding a risk of bond value change from starting settlement guarantee until settlement date.

Logical model



# Case 1: Cash collateral (USD for USD) for CCP



Note: Since FICC can not have an account in Fed, FICC assigns Bank of New York Mellon and JP Morgan Chase (they have accounts in Fed) as the clearing bank.



## Case 2: Cash collateral(FCY to FCY) for margin call

### ● Outline

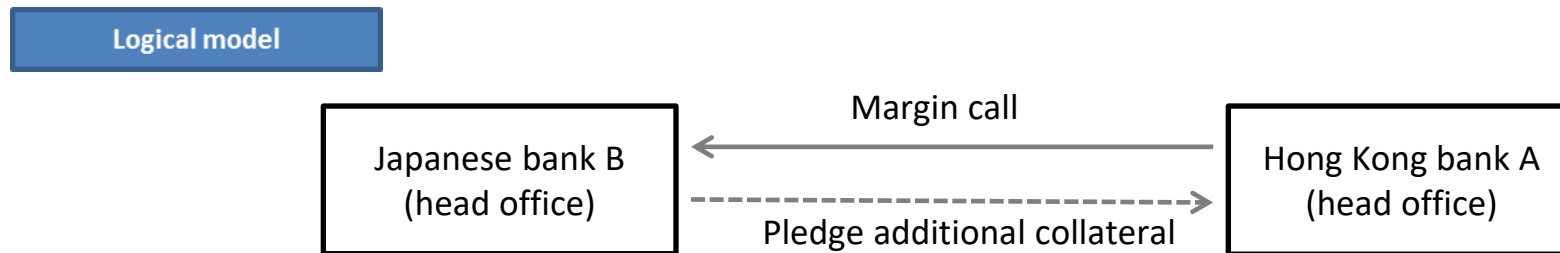
Japanese bank B (head office) is required additional collateral of HKD for margin call from Hong Kong bank A.

### ● Requirement

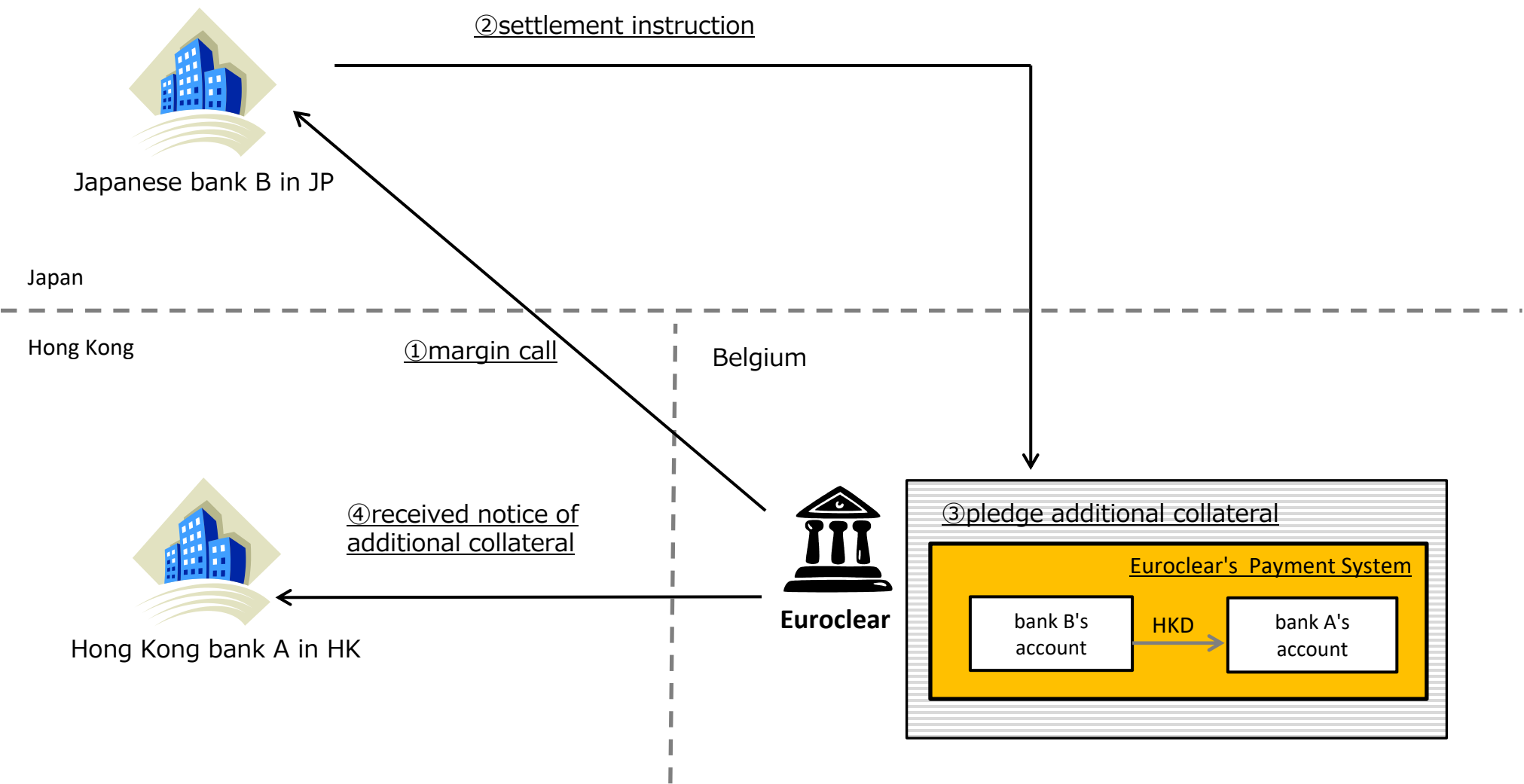
1. Japanese bank B(head office) and Hong Kong bank A(head office) are engaging in tri-party repo at Euroclear.
2. As a result of mark to market, value of bond declining, hence, Japanese bank B need to pledge additional collateral to Hong Kong bank A.

### ● Purpose & characteristics

Euroclear has a custodian's function that is the management of repo transaction.(e.g. margin calls, hair cuts, setting current market price)



# Case 2: Cash collateral(FCY to FCY) for margin call





## Case 3: Bond collateral (JGB to THB)

### ● Outline

Japanese bank C(Bangkok branch) receives THB from BOT in exchange for collateralizing JGB via BOJ system.

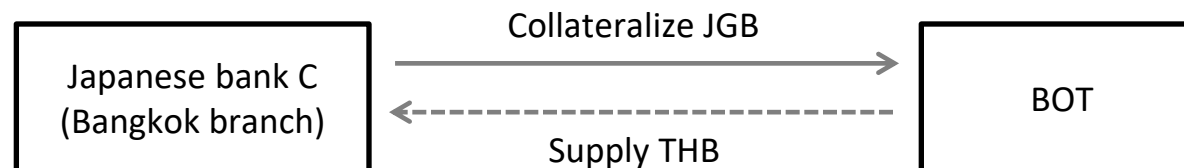
### ● Requirement

1. BOJ acts as BOT's custodian.
2. BOT permits JGB as an eligible collateral for THB
3. Japanese bank C(Bangkok branch) has an account at BAHT-NET system.

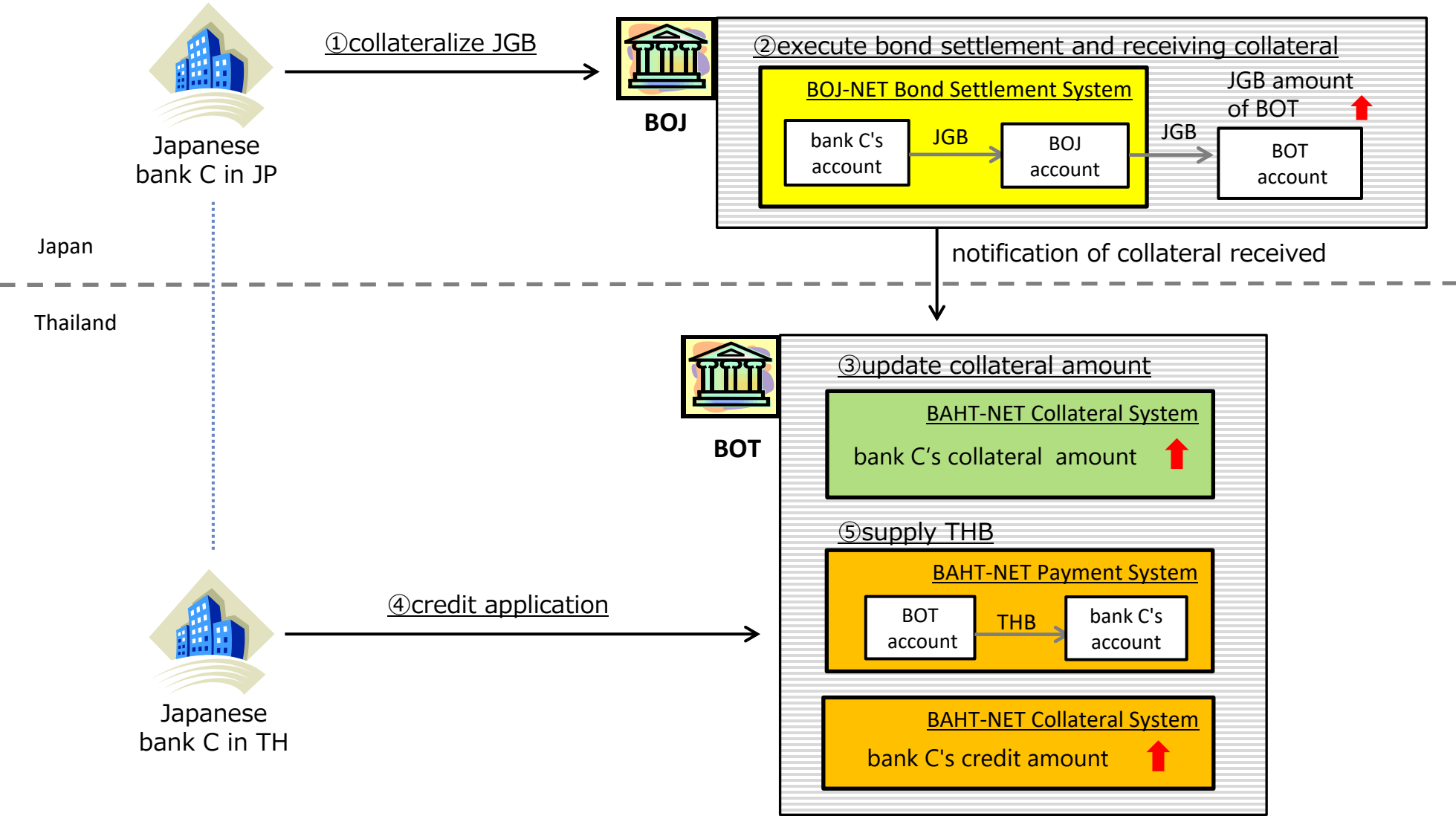
### ● Purpose & characteristics

Japanese banks in Thailand can have an additional liquidity facility from BOT in case of emergency.

Logical model



# Case 3: Bond collateral (JGB to THB)







# Case 4: U.S. Dollar Funds-Supplying Operations against Pooled Collateral by BOJ

## ● Outline

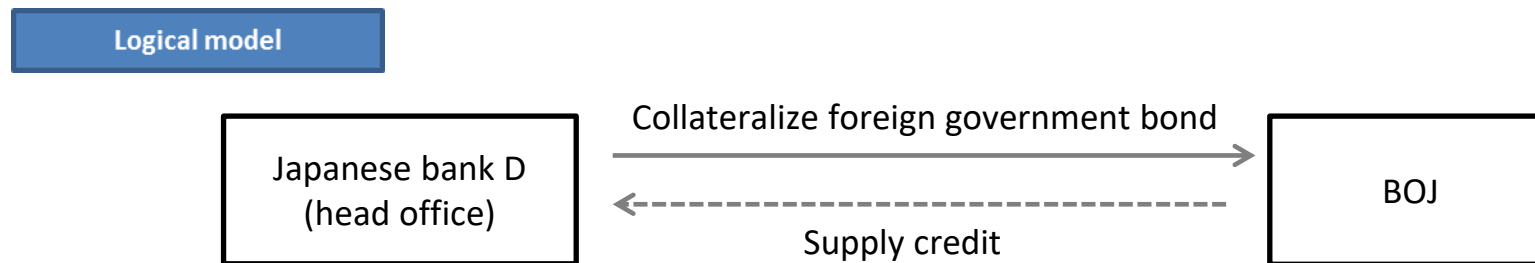
To allocate USD as a result of BOJ and FED currency swap, Japanese bank D (head office) participate an auction by BOJ to receive USD funding by pledging collateral (JGB or UST).

## ● Requirement

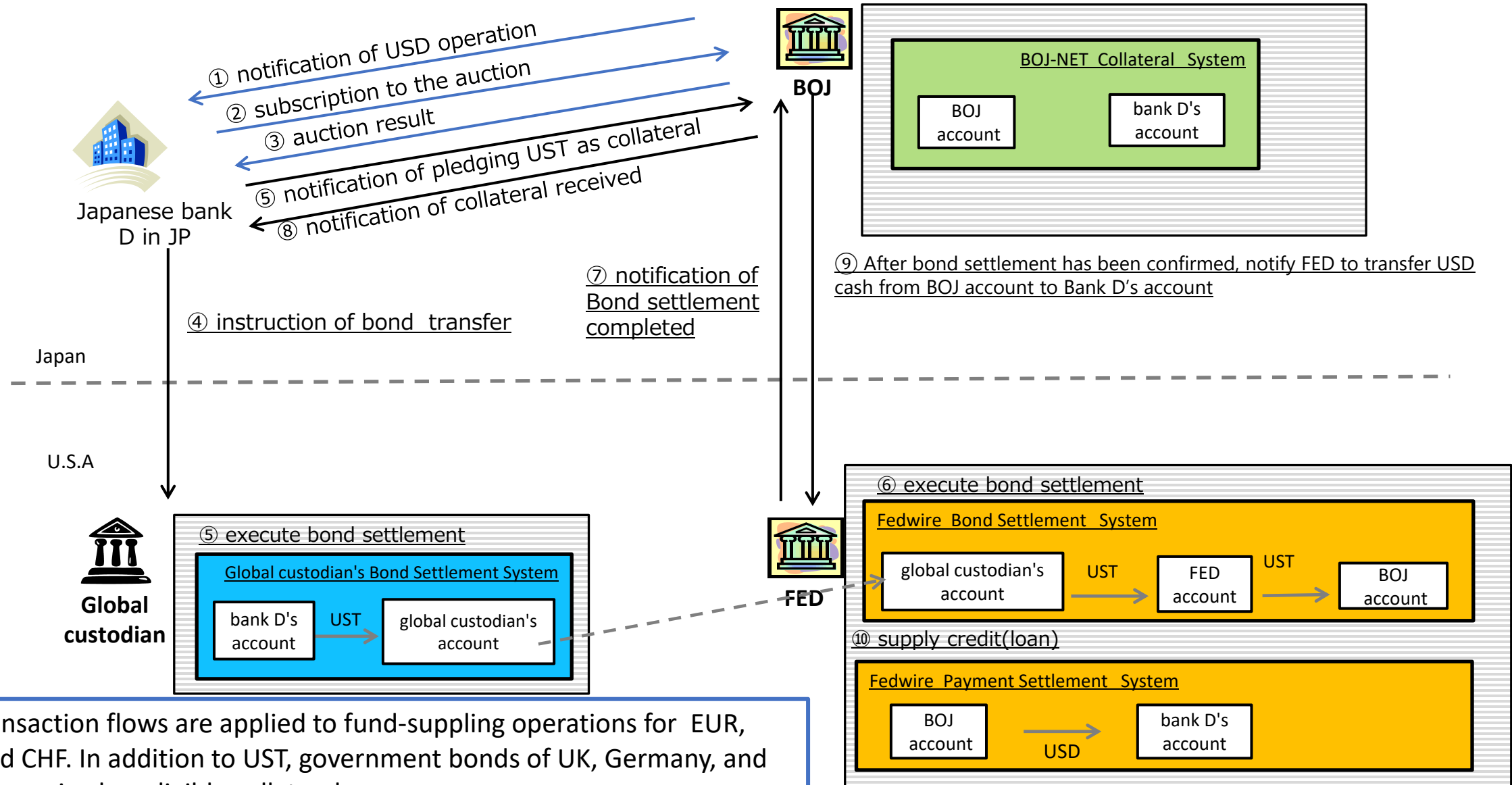
Bank D is a FED's direct or indirect participant.

## ● Purpose & characteristics

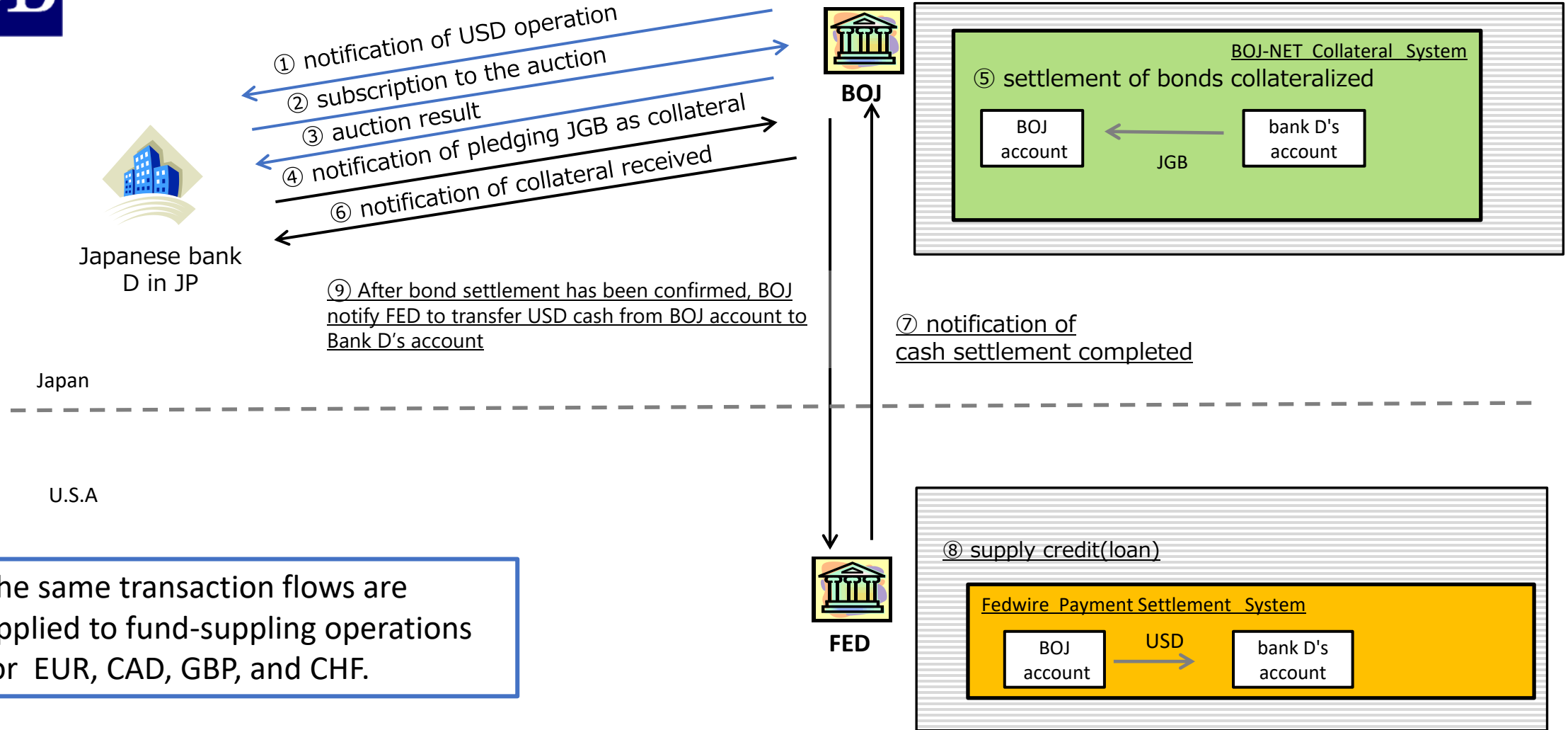
To encounter USD shortage by Japanese banks and ensure financial stability.



# Case 4: U.S. Dollar Funds-Supplying Operations against Pooled Collateral by BOJ (UST to USD)



# Case 4: U.S. Dollar Funds-Supplying Operations against Pooled Collateral by BOJ (JGB to USD)



The same transaction flows are applied to fund-supplying operations for EUR, CAD, GBP, and CHF.



# Case 5: US onshore bilateral repo via global custodian (UST to USD)

## ● Outline

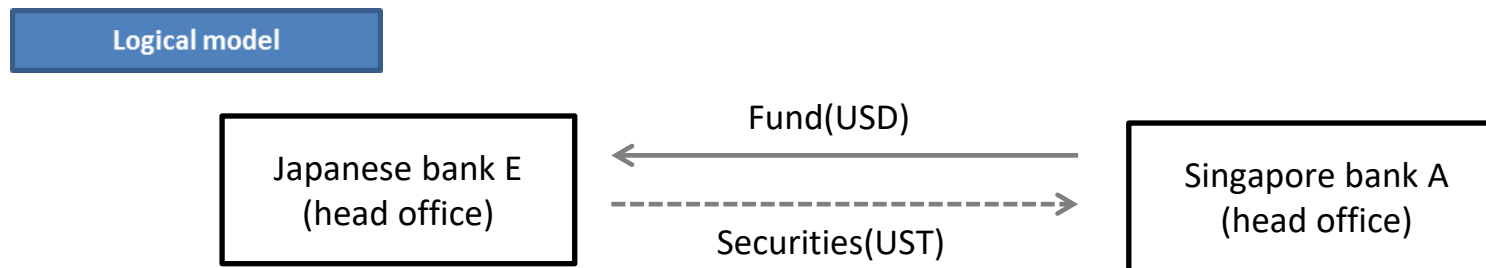
Japanese bank E(head office) receives USD from Singapore bank A(head office) via UST repo.

## ● Requirement

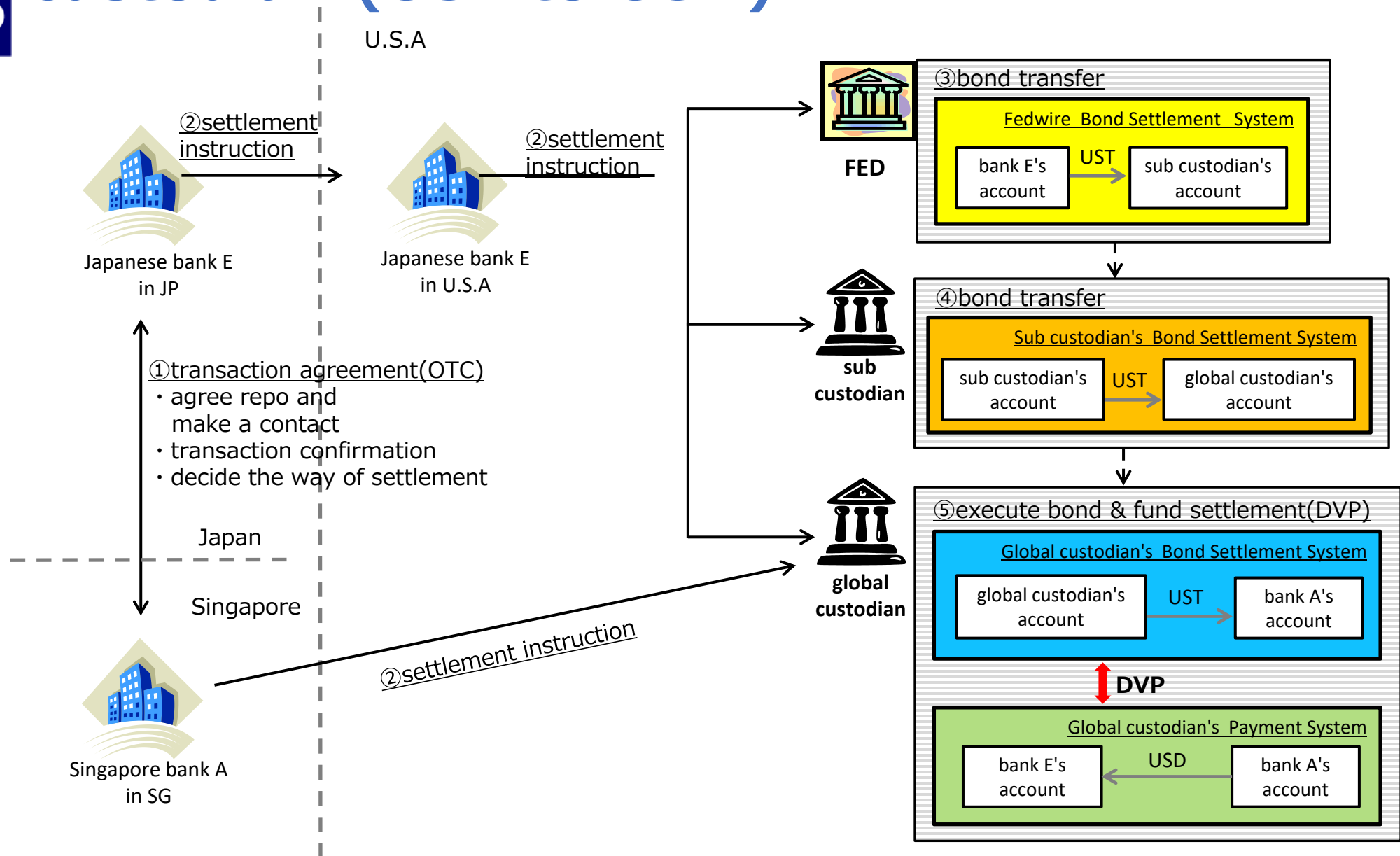
1. Japanese bank E and Singapore bank A trade through a global custodian.
2. Japanese bank E(NY branch)and Singapore bank A(head office) have account in the same global custodian.

## ● Purpose & characteristics

To get USD



# Case 5: US onshore bilateral repo via global custodian (UST to USD)





# Case 6: US offshore bilateral repo via CMU or global custodian (UST to USD)

## ● Outline

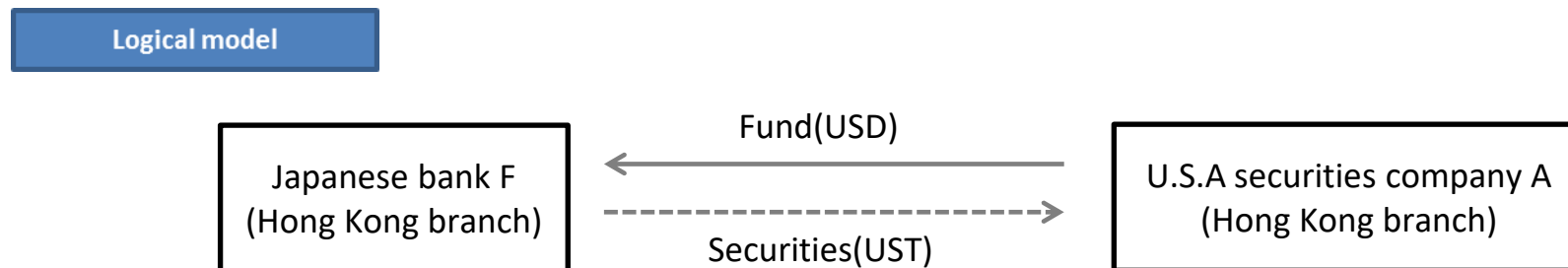
Japanese bank F (Hong Kong branch) receives USD from U.S.A securities company A (Hong Kong branch) by UST.

## ● Requirement

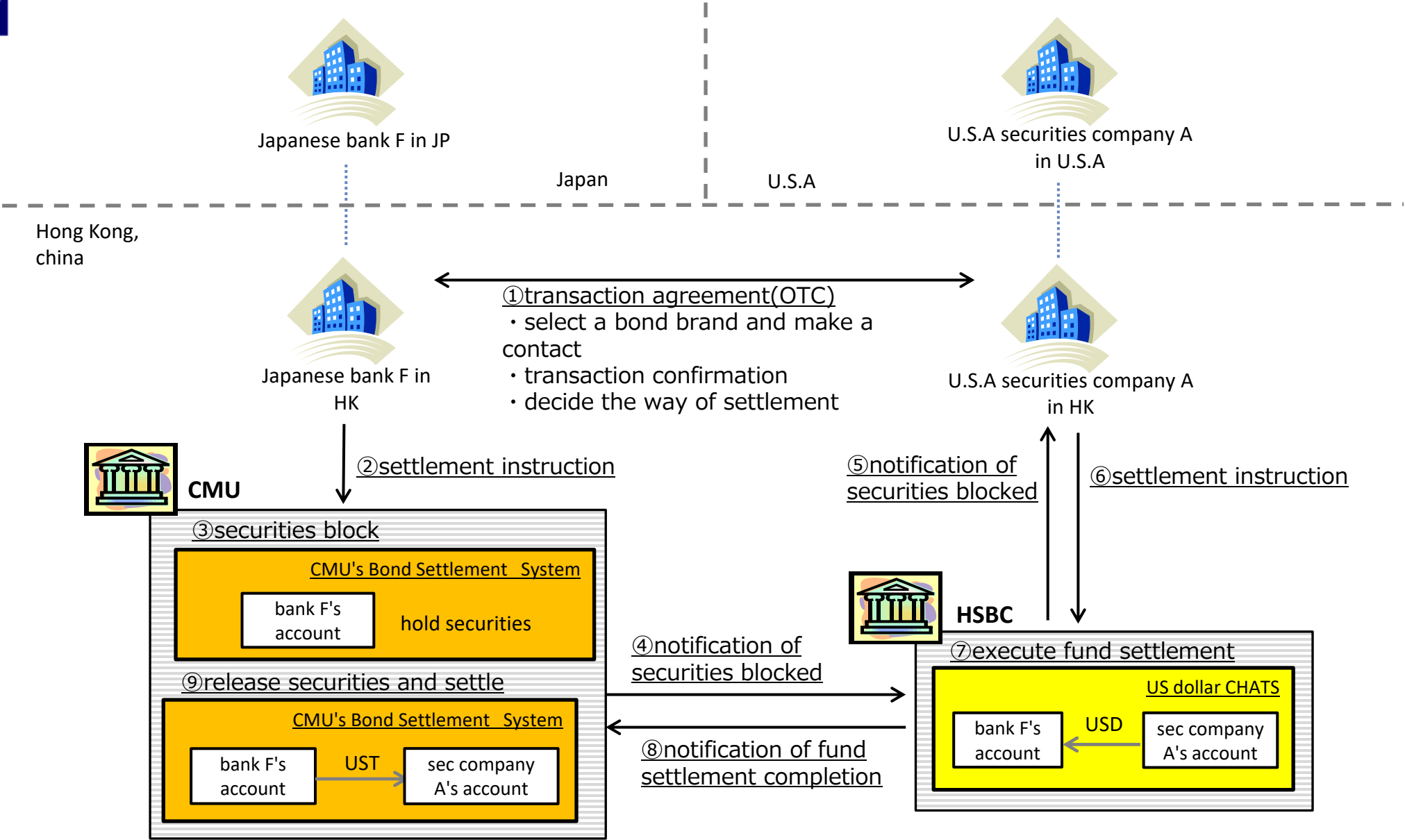
Japanese bank F and U.S.A securities company A are participants of CMU and USD-CHATS.

## ● Purpose & characteristics

To get USD.



# Case 6: US offshore bilateral repo via CMU or global custodian (UST to USD)



# ADB Case 7: Securities lending

## ● Outline

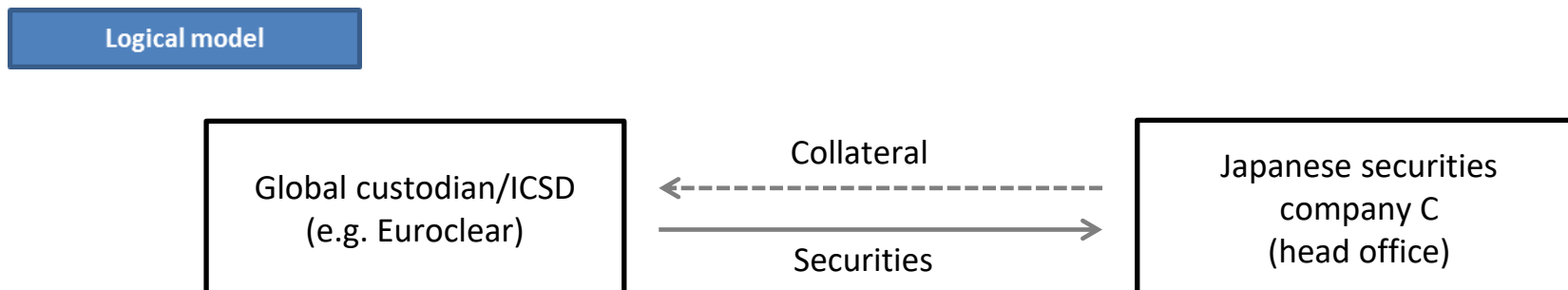
Japanese securities company C borrows UST for securities settlement from a global custodian/ICSD.

## ● Requirement

1. Japanese securities company C has participated the lending and borrowing of securities program in advance.
2. Japanese securities company C has pledged collateral in advance to participate the program.

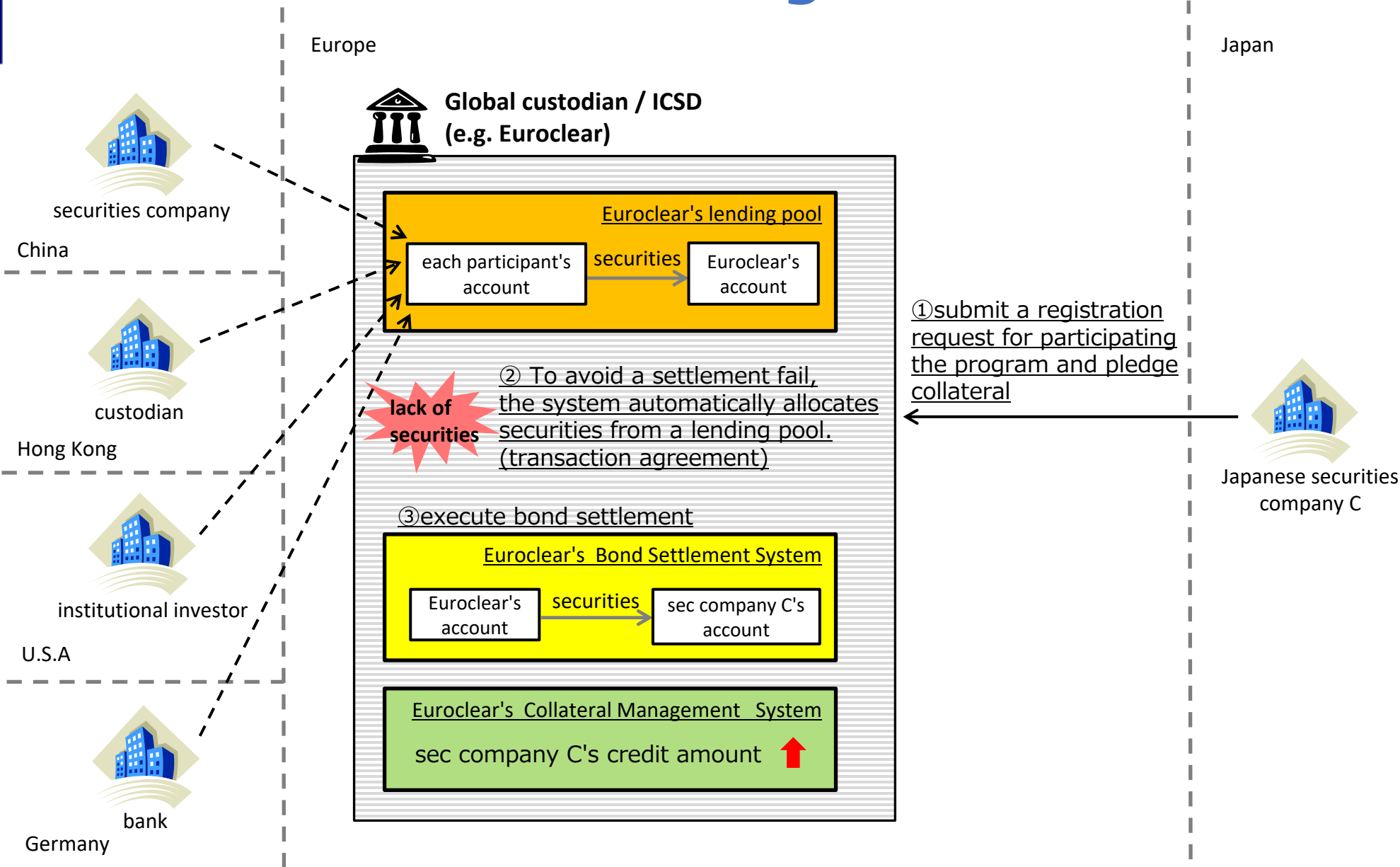
## ● Purpose & characteristics

A lender can get securities lending fee safely (and no administrative) and improve yield on investment, a borrower can solve lack of securities to avoid a settlement fail.





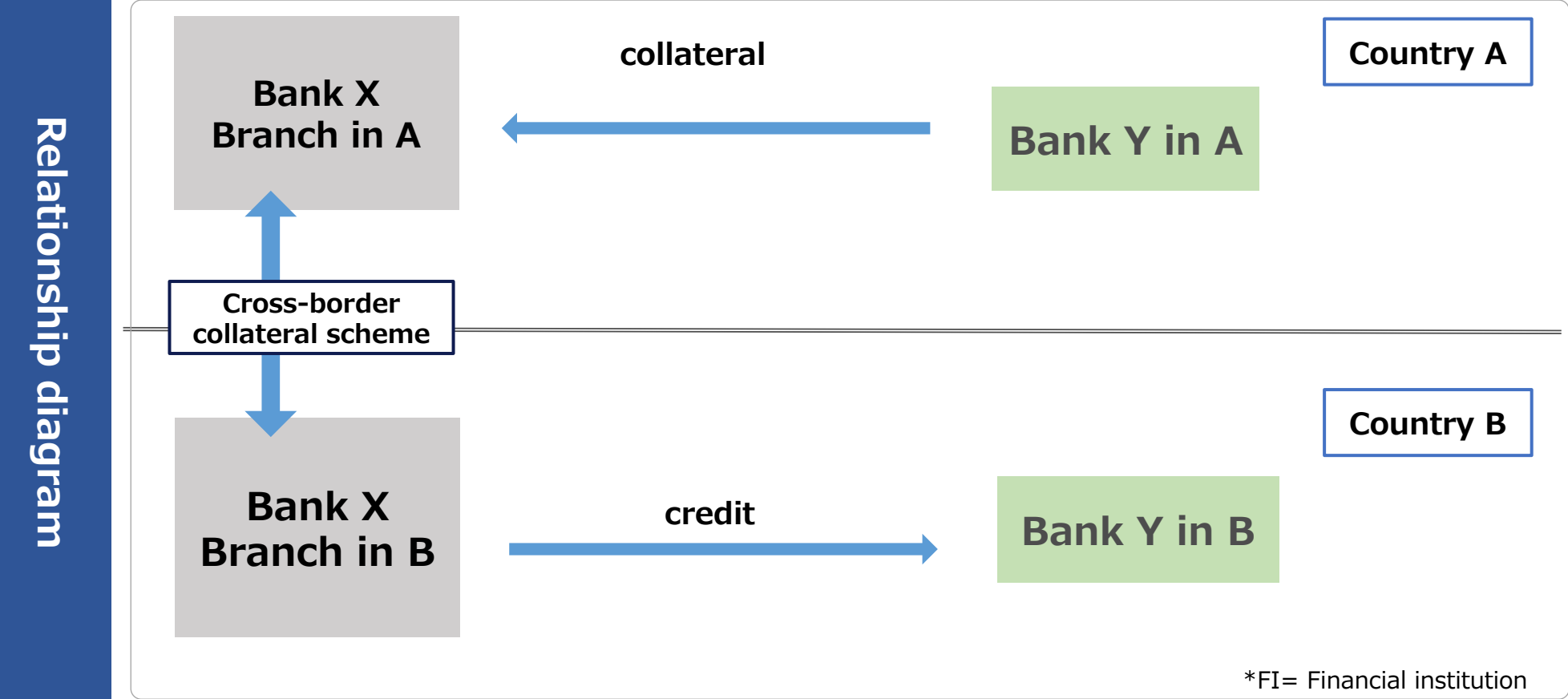
# Case 7: Securities lending





## **Step 2: Conceptualize typical cross-border transaction flows**

# Model 1: Cross-border collateral and repo in two transactions via local branches

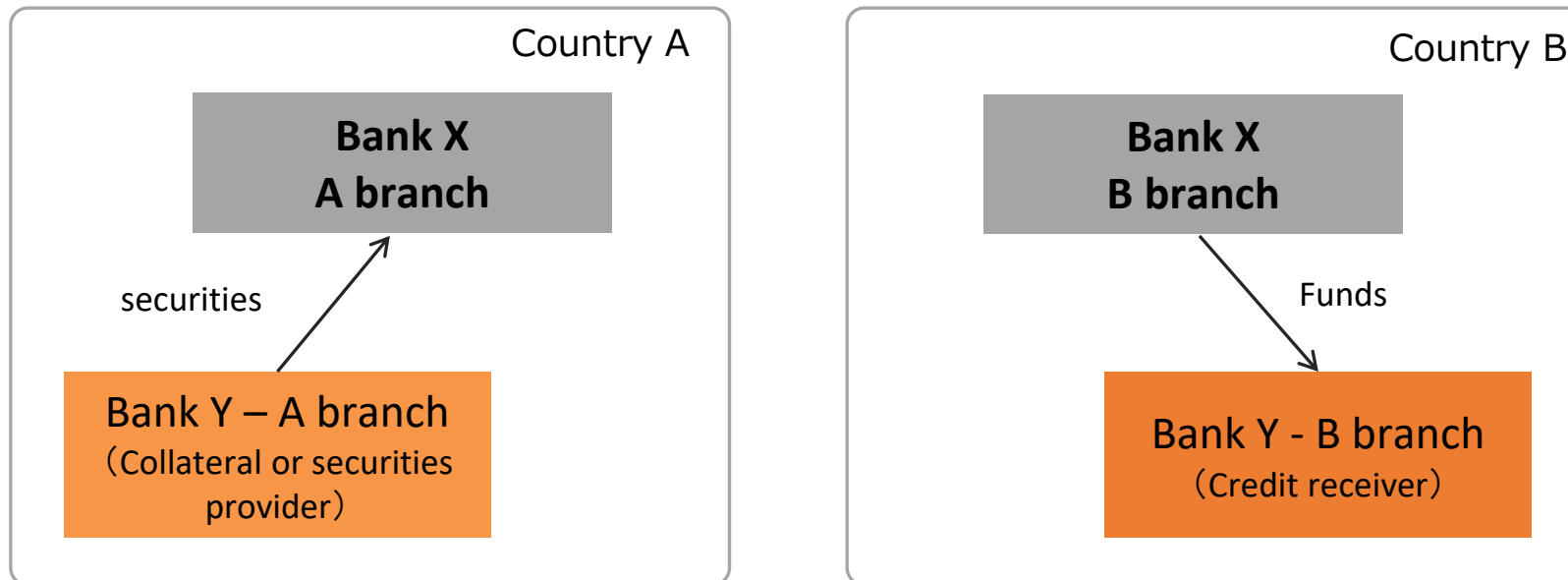


# Model 1: Cross-border repo or collateral in two transactions via local branches

- Bank X's branch B provides credit to Bank Y's A branch while Bank Y A branch sells or pledges securities to Bank X's A branch.

## Assumption

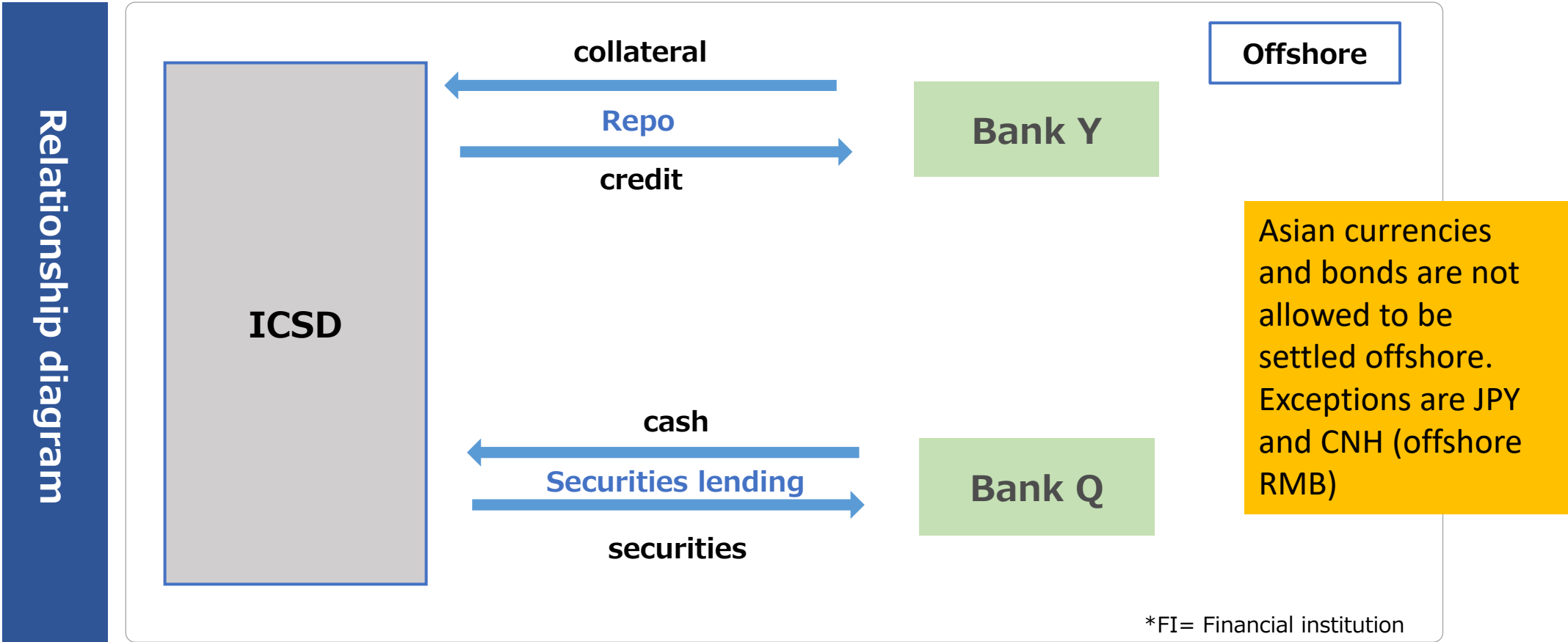
- Both Bank X and Y have branches (or subsidiary) in the two countries concerned.
- Though sales of securities and provision of funds are two separate transactions, Bank X and Y can agree to consider them as one.
- Bank X and Bank Y knows each other well and have enough counterparty credit.
- However, a legal difference in two jurisdictions may be high.



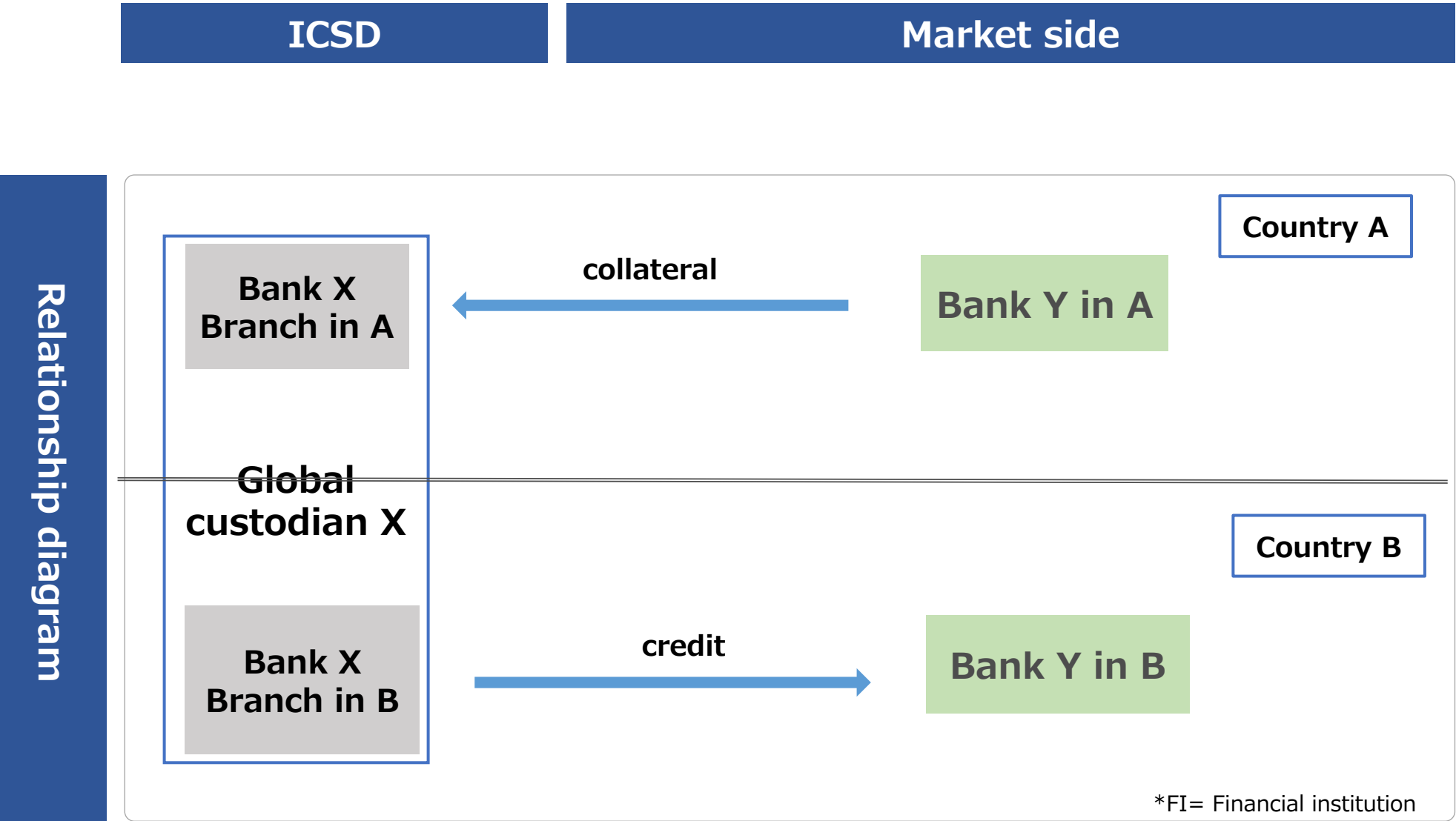
# Model 2: Cross-border collateral and repo business via ICSD



Tri-party repo with ICSD, which may be observed most frequently.



# Model 3: Cross-border collateral and repo business via global custodian

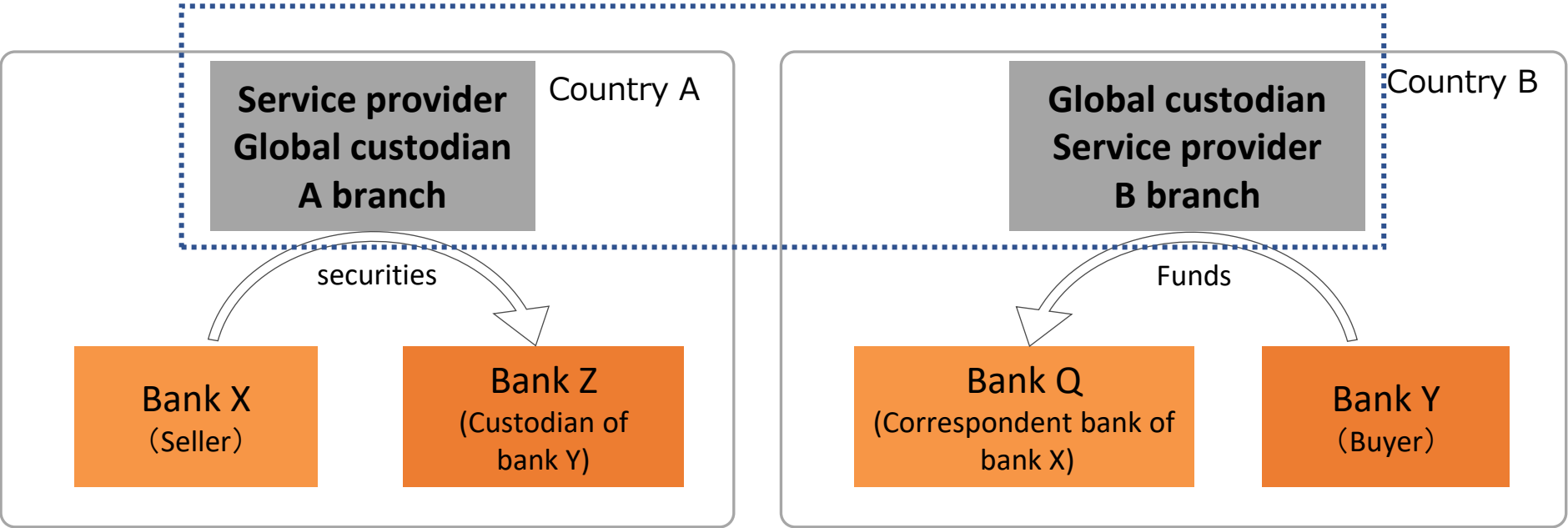


# Model 3: Cross-border collateral and repo business via global custodian

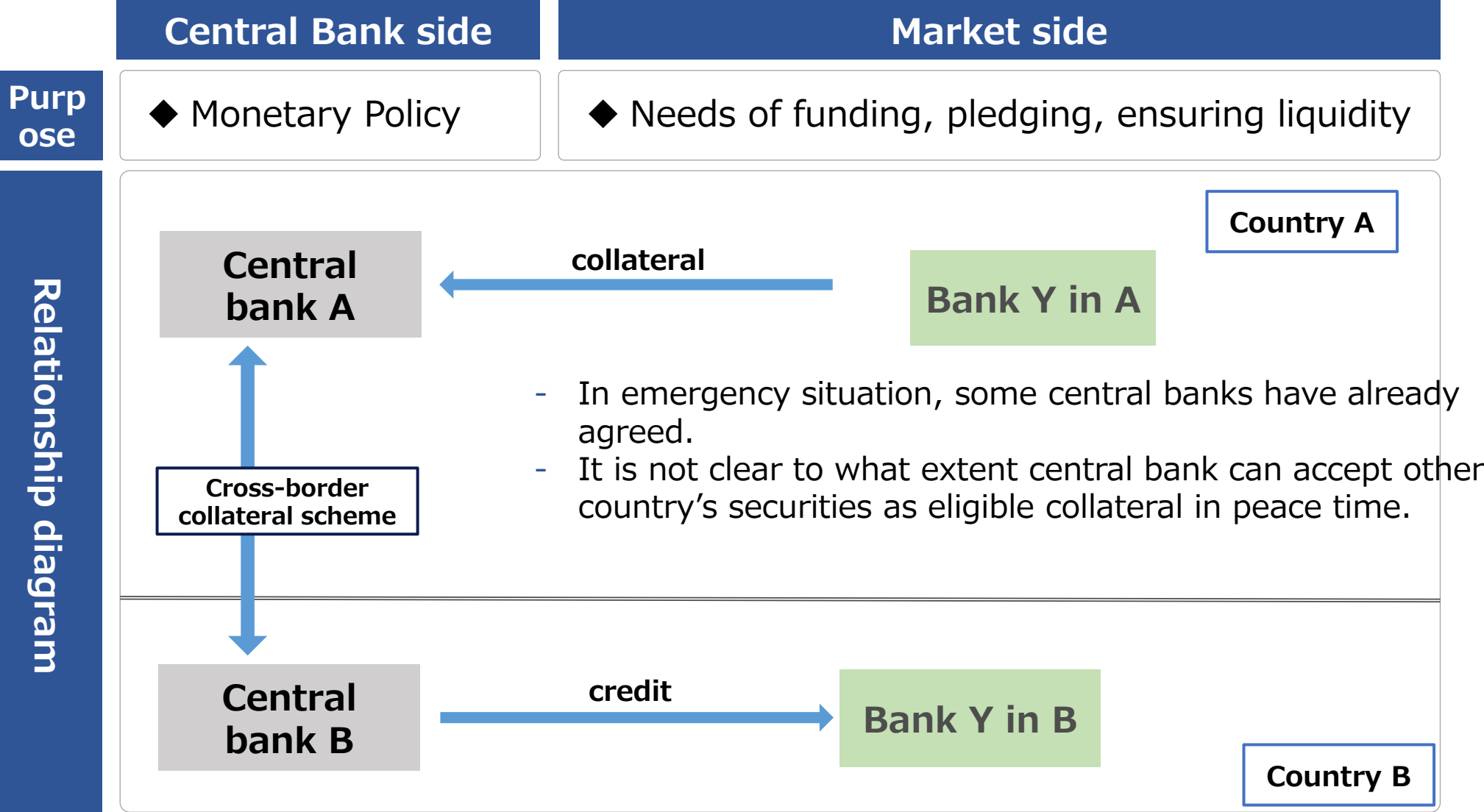
- Service provider provides tri-party repo service through local branches.

## Assumption

- A service provider needs to have branch offices in each country.
- The service provider can provide custody service to banks in each markets
- The service provider will transfer funds in Country B in exchange for securities in Country A.
- Service provider needs to be permitted FOP transfers.
- As a global custodian normally has high credit, they may be able to agree the legal relationship.



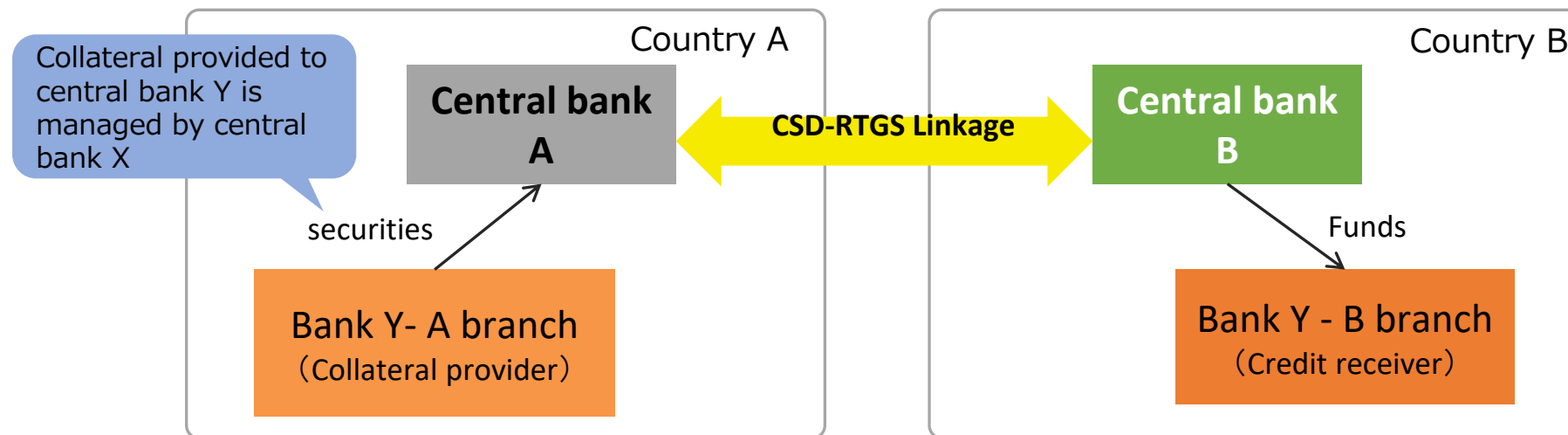
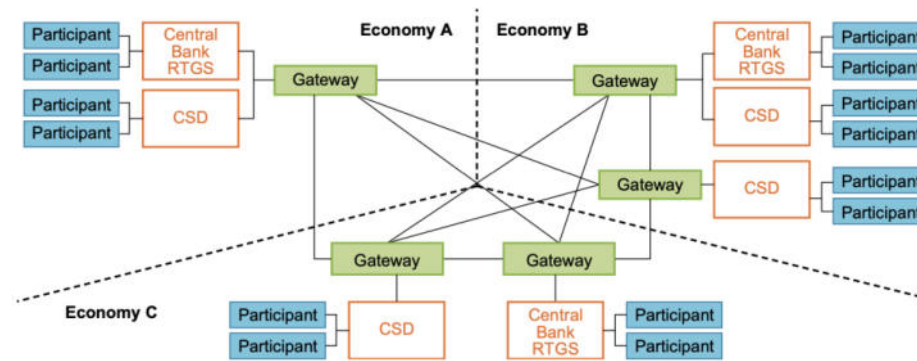
# Model 4: Cross-border collateral and repo business via cross-border collateral agreement between central banks





# Model 5: Cross-border collateral and repo via CSD-RTGS Linkages

- Like CCBM in Europe, banks can get local liquidity in another country by pledging home-country's securities to the central bank.
- CSD-RTGS Linkages will provide DVP
- The Linkages can accommodate increase in demand for cross-border collateral by central banks.



## **Step 3: Identify problems and impediments**

# Problem 1: Invisibility of transactions

## ■ Limited cross-border transactions

- CBCR transaction in the region is limited.
- Most of transaction are USD/UST, USD/JGB, USD/AGB.

## ■ Lack or fragmentation of information

- Identifying whether a transaction is repo or buy/sell is difficult because transactions are booked outside the region (e.g. London).
- It is not easy to trace CBCR because FI's systems does not capture such data.

Difficult to capture current state of the market



- Market players may have psychological barriers to use CBCR because they can't judge what they can or cannot do, with whom, and where.




- Invisibility of transaction may be a barrier for CBCR market.
- We need to gather further information to understand and validate possible transactions.

## Problem 2: Differences in legal arrangement

- Legal issues represented in Global Master Repo Agreement Country Annexes and Credit Support Annex.

The extension of BOJ-NET operating hours enabled JGBs to be collateral in Europe. Some FIs revised CSA to accept JGBs.



Though Singapore and Malaysia are English law countries, there is a difference in GMRA country annex, which seems preventing cross-border collateral.

- We suspect lack or limited confidence in legal framework and market practices of developing markets may be one of reasons why financial institutions can't accept LCY bonds in CSA, particularly for cross-border transactions.
- To change the situation, it is often recommended to changing domestic laws to meet international practices, but it is not easy.
- As domestic repo and collateral transactions expands, there will be more sound market practices in developing markets, which foreign FIs also participate. Then, we may be able to create common recognition that the differences in legal arrangements in Asia may be negligible or not as large as expected.



# Proposals to create regional cross-border collateral and repo transactions

- Most of cross-border collateral and repo transactions are in USD/UST or limited currencies and bonds.
- Difficulty in accepting different legal framework and market practices seems to be the biggest hurdle for CBCR to be created in the region.
- Besides, counter-party of cross-border transactions are normally internationally active banks which have large operation in USD/UST.
- To foster CBCR market, we explore feasibilities of connecting each market with existing legal framework.
- It is desirable for central banks in the region to expand eligibility of collateral further.



Cross-Border Settlement Infrastructure Forum as an enabler to establish a regional infrastructure



# **Cross-Border Settlement Infrastructure Forum**



## Discussion under CSIF

1. Basic Principles on Establishing a Regional Settlement Intermediary and Next Steps Forward
2. Progress Report on Establishing a Regional Settlement Intermediary and Next Steps: Implementing Central Securities Depository–Real-Time Gross Settlement Linkages in ASEAN+3
3. Common Understanding on Cross-Border Business Continuity Planning and Cybersecurity
4. Common Understanding on International Standards and Gateways for Central Securities Depository and Real-Time Gross Settlement Linkages

**Defining  
detailed user  
requirements,  
design, coding,  
and testing**

The diagram illustrates the settlement process for a securities transaction, showing the flow of funds and securities between the Sell side and the Buy side.

**Sell side:**

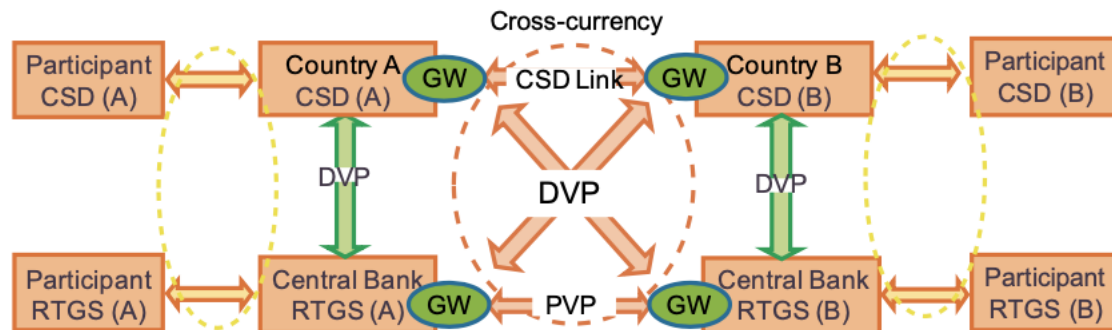
- Deliverer Account Owner Instructing Party:** Initiates the transaction, sending instructions (a) sese.023, (b) sese.024, and (h) sese.025 to the **Securities Depository**.
- Securities Depository:** Acts as the **CSD Account Servicer Executing Party**. It maintains **Safekeeping a/c** and processes the **Settlement amount X,XXX,XXX,XXX**.
- Cash Settlement:** The **RTGS Account Servicer Executing Party** processes the settlement, sending (g) TBD to the Securities Depository and (c) TBD to the Debtor Agent.
- Debtor Agent Account Owner Instructing Party:** Receives the settlement amount (c) TBD and sends (d) TBD, (e) TBD, and (f) camt. 054 to the **Cash Settlement** entity.

**Buy side:**

- Receiver Account Owner Instructing Party:** Initiates the transaction, sending instructions (a) sese.023, (b) sese.024, and (h) sese.025 to the **Securities Depository**.
- Securities Depository:** Acts as the **CSD Account Servicer Executing Party**. It maintains **Safekeeping a/c** and processes the **Settlement amount X,XXX,XXX,XXX**.
- Cash Settlement:** The **RTGS Account Servicer Executing Party** processes the settlement, sending (g) TBD to the Securities Depository and (c) TBD to the Debtor Agent.
- Debtor Agent Account Owner Instructing Party:** Receives the settlement amount (c) TBD and sends (d) TBD, (e) TBD, and (f) camt. 054 to the **Cash Settlement** entity.

**Central Process:**

- DVP (Delivery Versus Payment):** The central mechanism ensuring the simultaneous transfer of securities and funds.
- Settlement amount X,XXX,XXX,XXX:** The amount to be settled, shown in both the Securities Depository and Cash Settlement boxes.

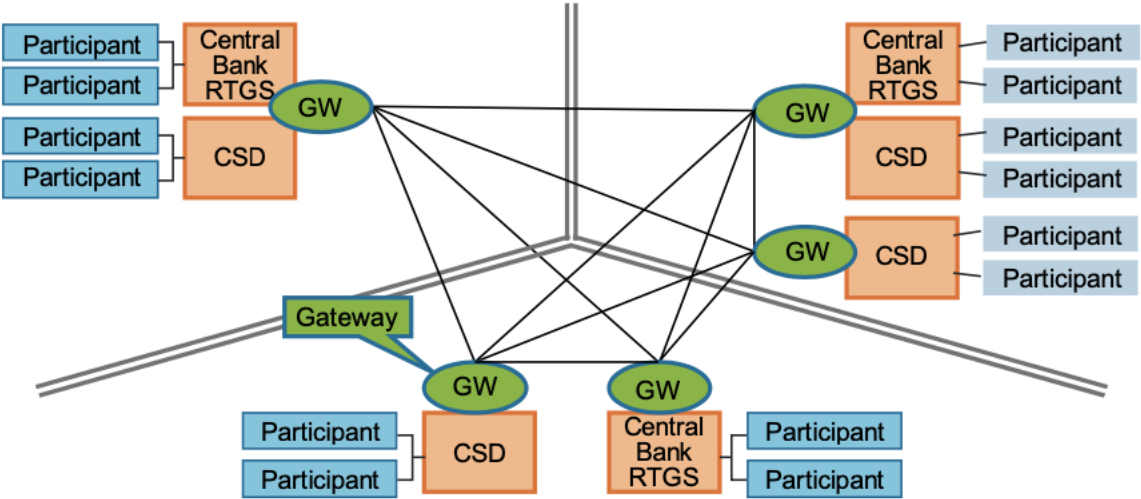




**Implementation  
phase 3  
2019–2020**

**Implement  
CSD-RTGS linkages**

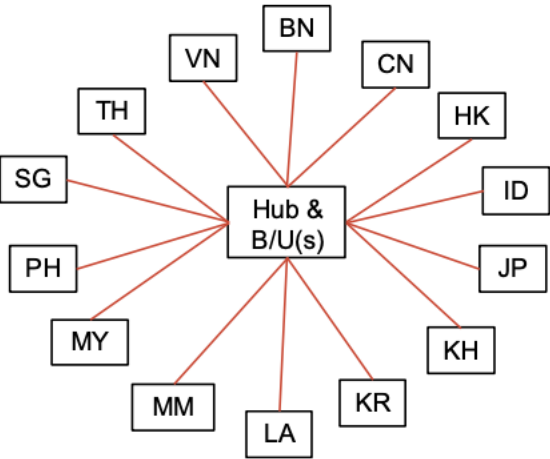
Starting  
production  
operation of  
CSD-RTGS  
Linkages



**Integration  
phase  
2020–**

**Implement integrated  
solution**

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





# Next phase of CSIF TA

- (i) a regional overview of recent technological advancements applicable to financial market infrastructures;
- (ii) a benchmark for product and market infrastructure design for regional fund markets and related infrastructures; and
- (iii) collateral eligibility for market infrastructures and central banks, and enabling factors to push local currency collateral utilization for cross-border financial transactions.



# SESSION 2

## Collateral Market Landscape in Europe

**João Amaro**

Senior Market Infrastructure PM Expert

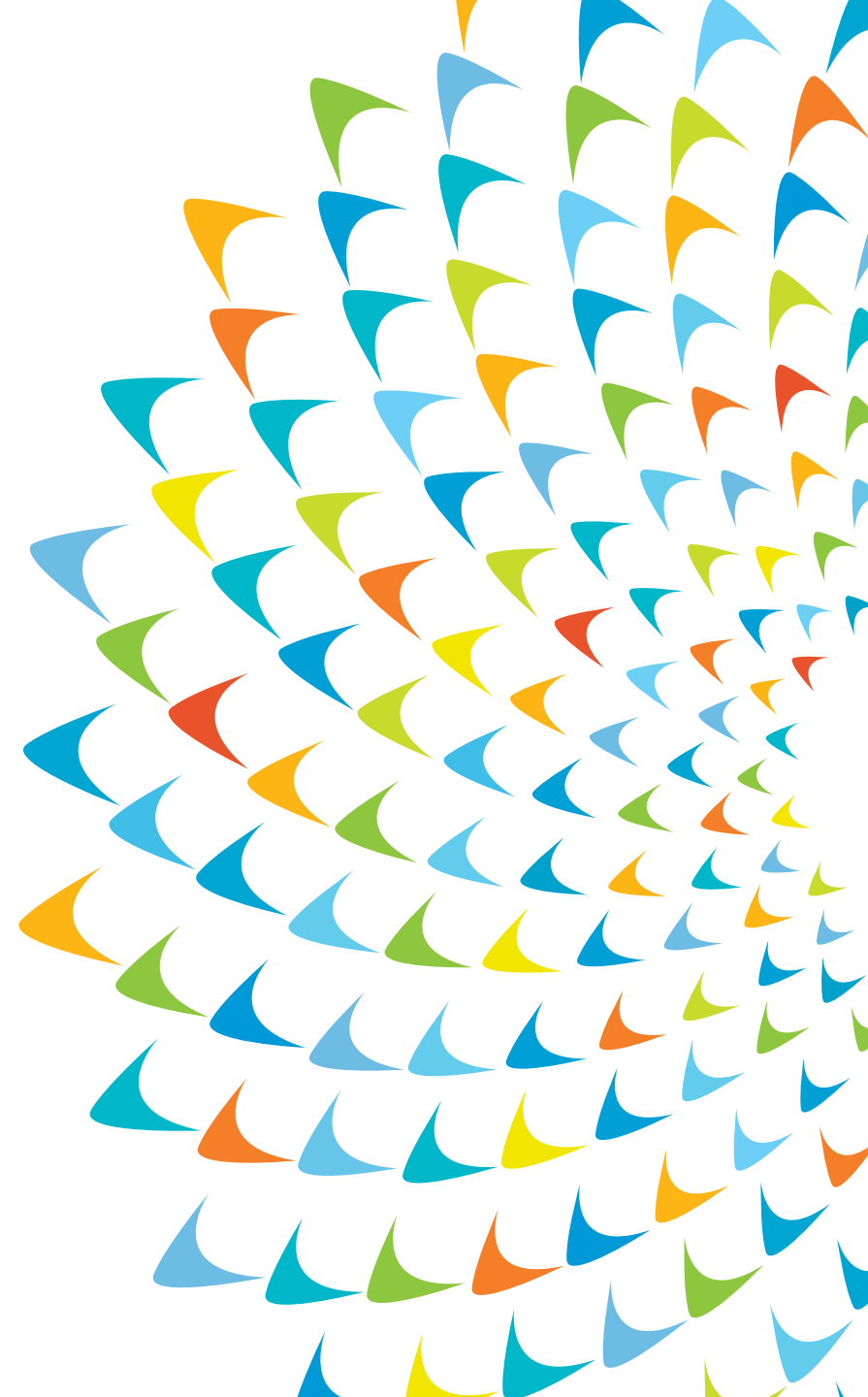
Directorate General Market Infrastructure and Payments

**Gary McNamara**

Senior Market Infrastructure Expert

DG Market Infrastructure and Payments

European Central Bank (ECB)





EUROPEAN CENTRAL BANK

EUROSYSTEM

# Eurosystem Collateral Management System

João Amaro

## An introduction to the ECMS

## CSIF Online Workshop

December 2020

target | ECMS  
services

# A single, unified collateral management system

The Eurosystem Collateral Management System (ECMS) will replace the 19 local collateral management systems of the Eurosystem National Central Banks in operation today.

Go-live is planned for **November 2023**.

Before the ECMS:

**19** collateral  
management systems



From November 2023 onwards:

**1** unified  
system



target | ECMS  
services

# The ECMS – key aspects

The ECMS will work together with the other TARGET services (T2 and T2S) to ensure that cash, securities and collateral flow freely across Europe.

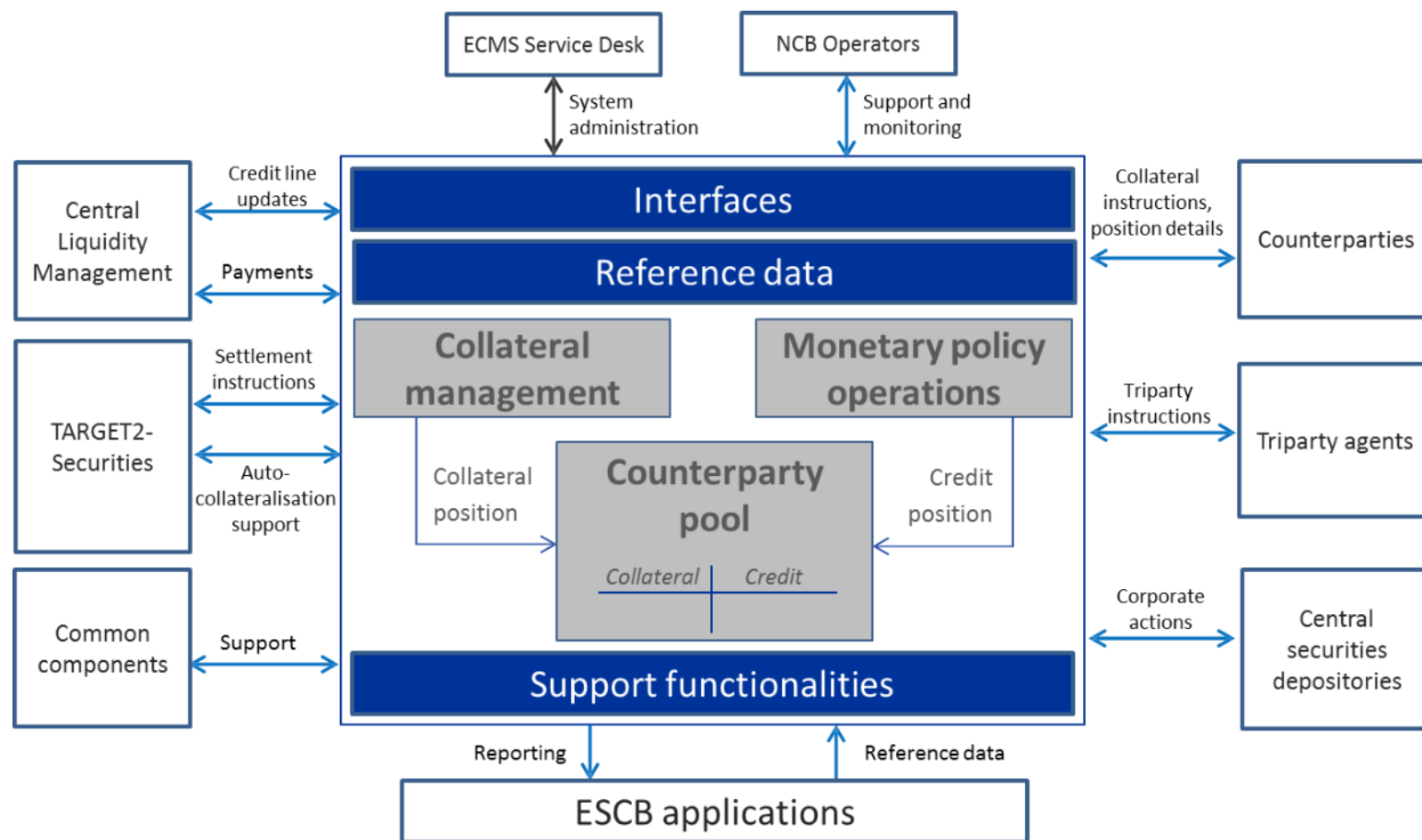
The ECMS keeps track of the individual collateral and credit positions of counterparties belonging to the Eurosystem national central banks.

The ECMS calculates the credit line available to each counterparty and send this information to the central liquidity management tool (CLM).

The ECMS converts counterparties' (de-) mobilisation instructions into settlement instructions which are sent to and settled in TARGET2-Securities (T2S).

# Interaction of the ECMS with the ecosystem

The ECMS interacts with many other services to provide Eurosystem NCBs and their communities with common functionality for managing marketable assets and credit claims used as collateral in Eurosystem credit operations.

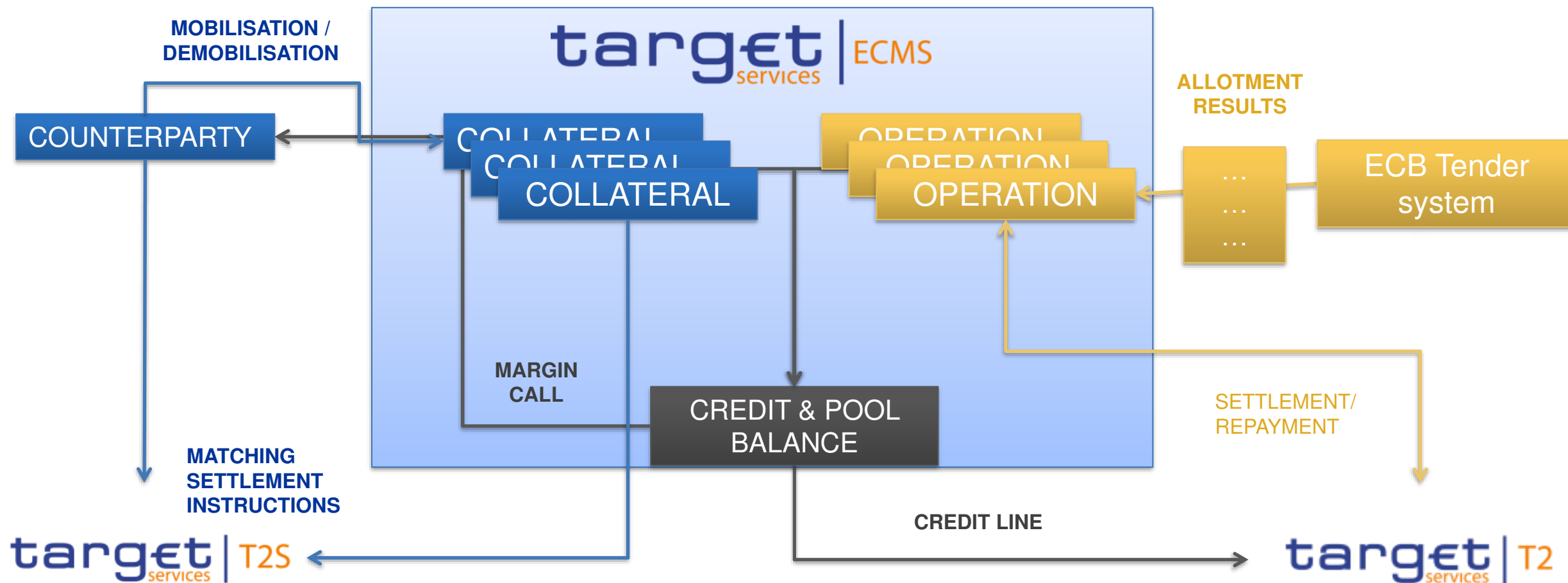




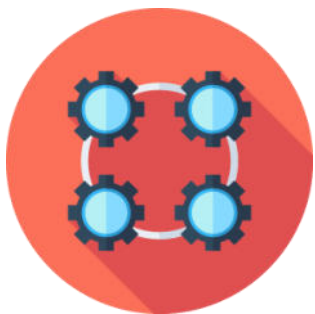
# Monetary Policy Instruments within the scope of ECMS

	Provision of liquidity	Absorption of liquidity
Open market operations	<ul style="list-style-type: none"> <li>✓ <b>Reverse transactions (MRO, LTRO, TLTRO, ...)</b></li> <li>Foreign exchange swaps</li> <li>Outright purchases</li> </ul>	<ul style="list-style-type: none"> <li>Reverse transactions</li> <li>Foreign exchange swaps</li> <li>✓ <b>Collection of fixed-term deposits</b></li> <li>Issuance of ECB debt certificates</li> <li>Outright sales</li> </ul>
Standing Facilities	<ul style="list-style-type: none"> <li>✓ <b>Marginal lending facility</b></li> </ul>	<ul style="list-style-type: none"> <li>Deposit facility</li> </ul>

# Collateral and credit operations



# Benefits of the ECMS



**Harmonisation**  
of collateral management  
practices



**Efficiency**  
NCBs, their counterparties and other  
relevant actors to operate on one single  
system with a single interface.



**Integration**  
within the Eurosystem's  
market infrastructure  
landscape (T2 and T2S).

# Indicative numbers on ECMS

**1.500**

**credit line  
updates** per day

**400**

**marketable asset  
instructions** per day  
(mob./demob.)

**1.200**

**payments**  
per day

**25.000**

**average marketable  
asset positions**

**2.000**

**messages** per day

**2.700**

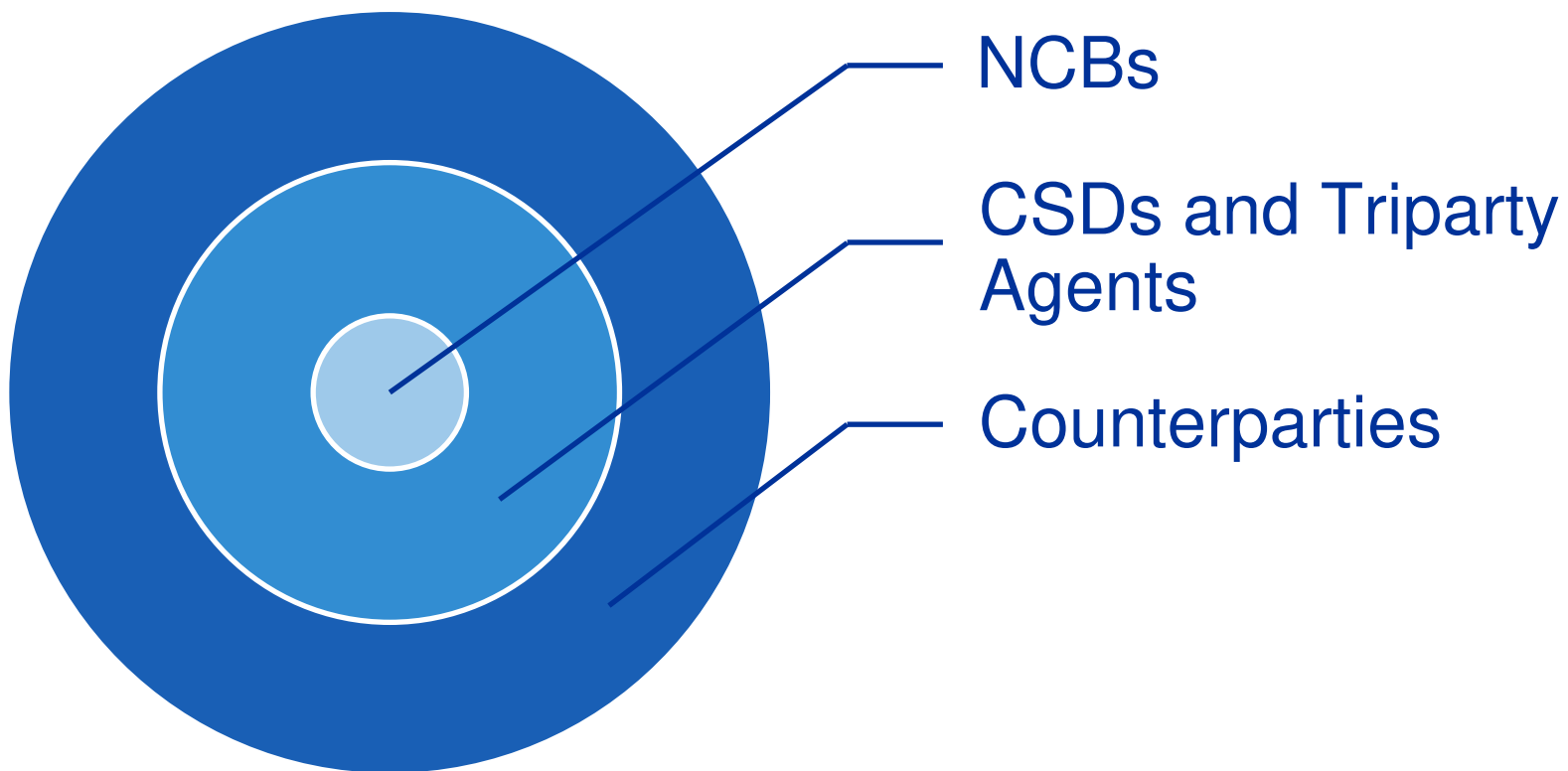
**counterparties  
expected** in the system

**Around 25.000**

eligible **collateral**  
**marketable assets**

# Who needs to be ready?

## The ECMS Community





EUROPEAN CENTRAL BANK

EUROSYSTEM

# Single Collateral Management Rulebook for Europe

CSIF Online  
Workshop

4 December 2020

**Single Collateral Management Rulebook for Europe**  
common rules for managing collateral



**Gary McNamara**  
European Central Bank

# A single rulebook for collateral management

By November 2023, a single set of rules and procedures for managing collateral will be in force across Europe

- **Actors** affected include Central Securities Depositories (CSDs), National Central Banks (NCBs), custodians/intermediaries, issuers/agents, Central Clearing Counterparties (CCPs) and triparty agents (TPAs) in Europe.
- The rules aim to create a **level playing field for European stakeholders** and foster integration of financial markets.
- The focus of the rulebook is on **common business processes and workflows**, with interactions between relevant actors being based on latest international messaging standards.

# Why is harmonisation needed?

- Through initiatives such as T2S, significant harmonisation has already been achieved in the settlement layer.
- Fragmentation still exists today in post-trade processes in Europe however, due to fragmented legacy standards, structural constraints and complex and diverse market practices.
- The Eurosystem's Advisory Group on Market Infrastructures for Securities and Collateral (AMI-SeCo) established a dedicated taskforce in 2017 to address these issues. The objective of the taskforce is to (i) identify the issues impeding the efficient and effective management of collateral within Europe and (ii) to define common rules to address these issues.



# Harmonisation needs

- In December 2017 AMI-SeCo's CMH-TF identified 10 areas where further harmonisation is needed to facilitate efficient collateral management.



## 1. Triparty Collateral Management

Harmonisation of triparty collateral management workflows and messaging in order to facilitate interoperable processes allowing collateral mobility across triparty agents.



## 2. Corporate Actions

Harmonisation of Corporate Actions processes, workflows and messaging by reinforcing existing harmonisation standards or adding new harmonisation standards (taking into account specific considerations from a collateral management perspective).



## 3. Taxation Processes

Harmonisation of tax processing in the context of collateral management (taking into account identification of parties in collateralised transactions).



## 4. Bilateral Collateral Management

Harmonisation of workflows for bilateral collateral management (covering non-cleared OTC derivatives and securities financing). Interoperability and leverage of existing infrastructures and market platforms.



## 5. Margin Calls

Interoperability and leverage of existing infrastructures and market platforms for margin processes.



## 6. Billing Processes

Harmonisation of billing procedures, workflows and messaging.



## 7. Cut-Off Times

Minimum requirements for end-of-day cut off times to avoid possible different value dates in cross-infrastructure transactions in different markets, which may create frictions for market participants active in different markets.



## 8. Collateral Dynamic and Static Data

Harmonisation of data exchanges to ensure that information / data is available where necessary. Market practices needed for use of data.



## 9. Sourcing of Collateral

Minimum requirements for sourcing/movement of collateral across Europe



## 10. Non-Euro Collateral

Market practices for the handling of non-euro denominated collateral (including related corporate action processes).

# How to achieve harmonisation?

In order to address the harmonisation needs, AMI-SeCo agreed that a **pan-European rulebook containing common rules and standards** for interactions between **all market players** should be established.

Single  
**Collateral Management**  
Rulebook for  
Europe



# What are the benefits of a single rulebook?



**Increased efficiency** by enabling collateral management across Europe from a single account using the same procedures



**Lower risk** in managing securities and collateral as a result of the standardisation of processes



**Lower costs** as a single rulebook will allow market participants to implement a single set of procedures



**A level playing field** for all market participants across Europe



**Increased reach** beyond domestic markets



**Interoperability** resulting from common messaging based on a common set of data across FMIs

# What markets are covered?

Euro area and beyond in view of creating a **Capital Markets Union**



Countries have established  
**National Stakeholder  
Groups (NSGs)** to  
facilitate harmonisation

**€ Area...**

AT, BE, CY, DE, EE, ES, FI, FR,  
GR, IE, IT, LT, LU, LV, MT, NL, PT,  
SI, SK

**...and beyond**

BG, CZ, CH, DK, HU,  
GB, PL, RO, SE

# What is the current status?

So far, harmonisation standards have been defined in 3 of the 10 areas

## Triparty Collateral Management

- AMI-SeCo defined a Single Triparty Model for Europe which delivers common processes for interaction between all major European triparty service providers and their participants, including the Eurosystem, using ISO 20022 messaging.

## Corporate Actions

- AMI-SeCo endorsed a first set of harmonised business processes and workflows for the management of corporate actions which also foresee the use of ISO 20022 messaging.

## Billing Processes

- AMI-SeCo defined a single set of rules for the transmission of billing information by post-trade service providers related to custody and collateral management, including the alignment of billing frequency and dates and using ISO

Work on defining additional standards is ongoing

# What happens next?

The focus now moves towards implementation of the defined Standards by the agreed implementation date of November 2023.

Monitoring



(I)CSDs and TPAs are preparing Adaptation Plans describing the changes needed to implement the agreed Standards. National Stakeholder Groups (NSGs) will monitor progress against the adaptation plans on an ongoing basis.

Compliance



A 'traffic light approach' (similar to that used in the context of the T2S Harmonisation agenda) will be used to assess compliance with the Standards.

Actors



The monitoring will track the progress of key actors in the European Union, United Kingdom and Switzerland e.g. (I)CSDs, TPAs, central banks, custodians.



## SESSION 3

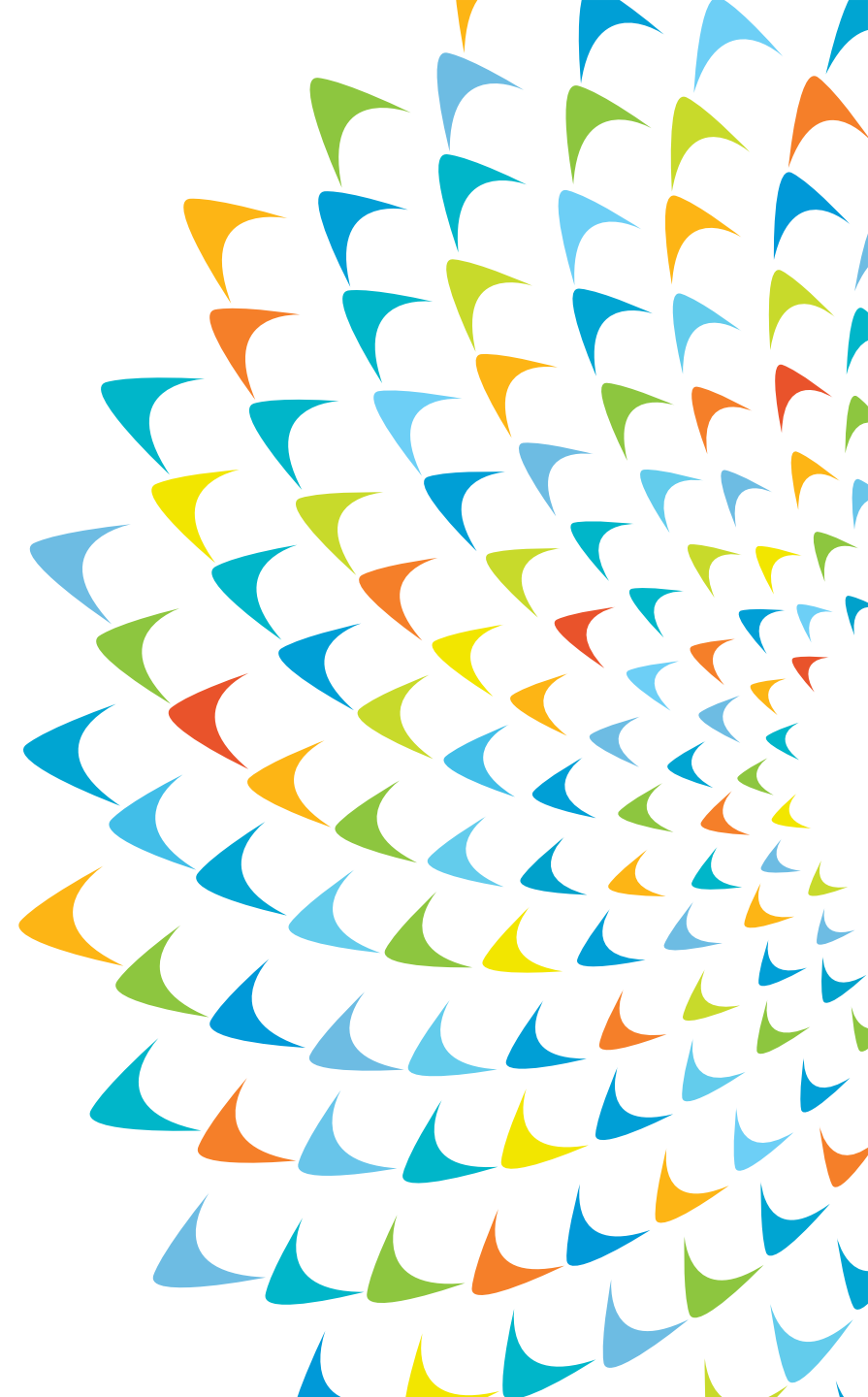
# Collateral Service Providers and Their Collateral Solutions

**Duncan Scott**

Product Management Consultant, MTU  
Depository Trust & Clearing Corporation (DTCC)

**Davin Cheung**

APAC Head  
Banking, Funding & Financing Products  
Clearstream Banking S.A.





**DTCC**

# Margin Transit Utility (MTU)

**DTCC**

*Cross-Border Use of Local Currency Collateral ASEAN +3  
Dec 4<sup>th</sup>, 2020*



# Summary

- What problem(s) are we trying to solve?
- Looking back on the events of Q1/Q2 2020
- Impact of the UMR phases 5 and 6 delay
- Benefits of automation
- The importance / uniqueness of a utility model

# What problems are we trying to solve?

## Ongoing:

- Lack of automation
- Lack of connectivity
- Siloed behaviour
- Lack of transparency
- Liquidity risk
- Credit risk
- Operational risk

## Why are we not solving?:

- **Competing Regulatory Deliverables**
  - Market participants face multiple deliverables as well as UMR; for example SFTR, CSDR, IBOR..
- **Internal Competition for Project Resources**
  - Many 'efficiency' or 'client service' enhancements do not meet the prioritisation criteria
- **Short memory**
  - The pain and risk of previous crises diminishes in the rear-view mirror

# What is Margin Transit Utility?



MTU receives  
pledge  
instruction from  
AcadiaSoft



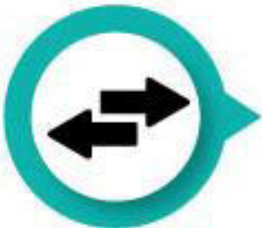
MTU reviews  
pledge  
instruction to  
determine what  
collateral has  
been agreed



MTU retrieves  
correct SSIs from  
ALERT



MTU instructs  
custodian or  
agent via SWIFT



MTU receives  
status updates,  
shares with  
clients



MTU receives  
EOD Reports,  
consolidates and  
shares with  
clients

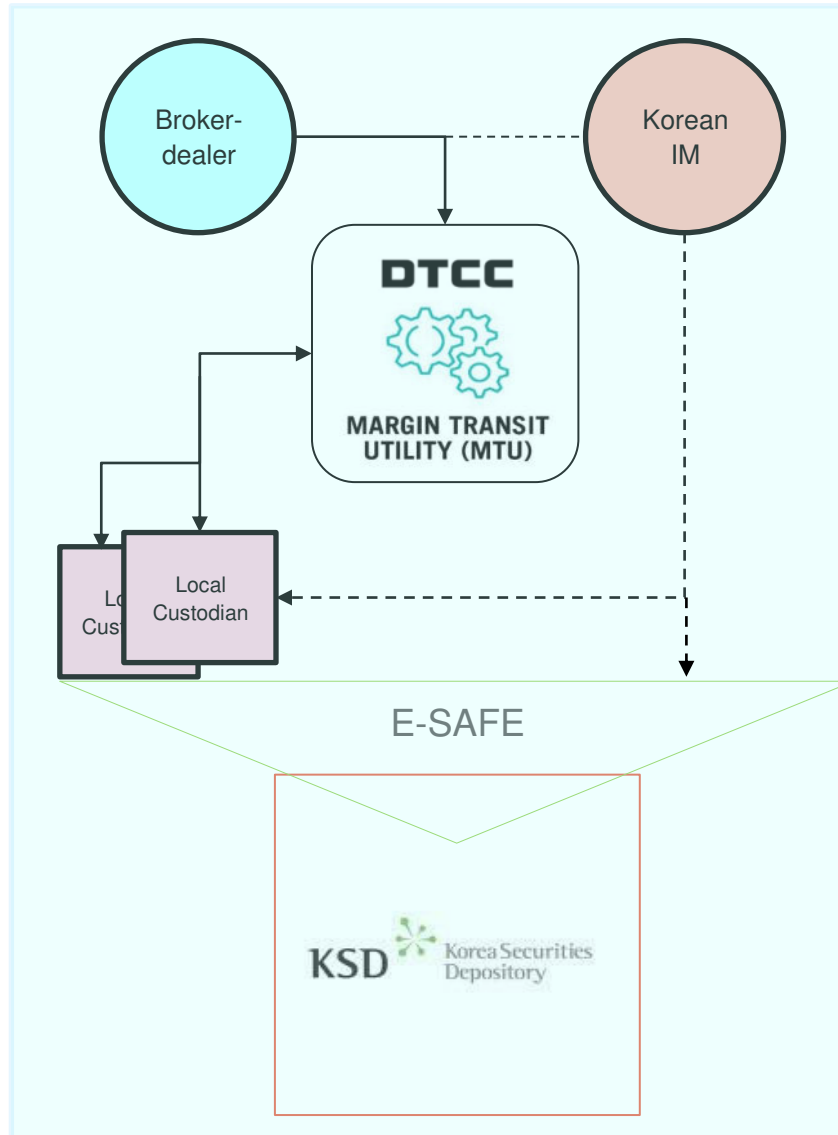
## KEY SERVICES

Bilateral Margin

Segregated Margin at  
Custodian

Segregated at Tri-party  
Agent

# Preparation for UMR Phase 5/6 in Korea



## Example 1:

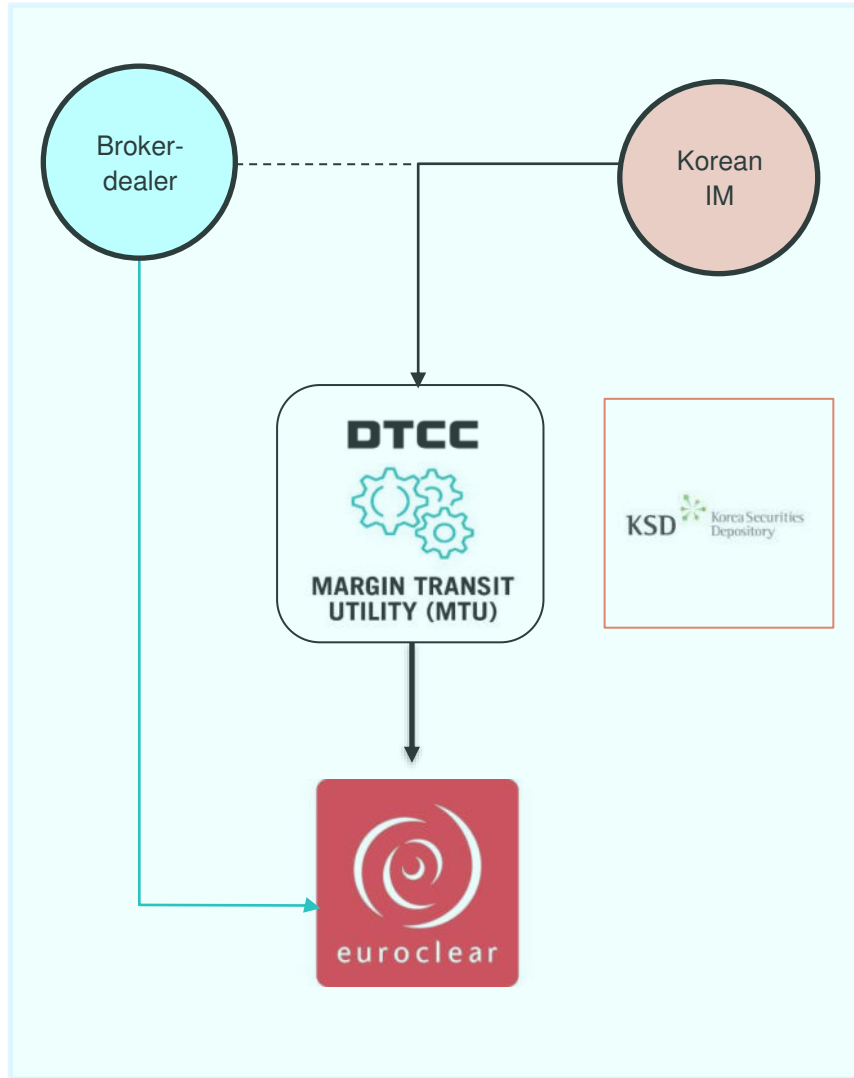
### Foreign Broker/Dealer secured at KSD

#### Background:

- DTCC MTU was contacted by Clients with counterparties in Korea. Those counterparties plan to pledge Korean Government securities at KSD to comply with UMR requirements.
- UMR rules will require OTC derivative trading counterparties to post initial margin in segregated accounts at third party locations
- MTU Clients are looking to local custodians to support an automated settlement infrastructure
- MTU is ready to connect with local custodians on behalf of one or both counterparties using either SWIFT MT54x/2xx when acting for both parties, or the MT527 to replace faxed instructions from broker-dealers
- As a longer-term solution, and subject to discussion with KSD and its participants, MTU may also connect directly with the KSD system to achieve straight-through-processing (STP) using either SWIFT MT54x/2xx or ISO 20022 messages

# Preparation for UMR Phase 5/6 in Korea

**DTCC**



## Example 2: Korean IM secured at Euroclear

### Background:

- 1 DTCC is aware that broker dealers plan to secure counterparties at triparty agents e.g. Euroclear
- 2 Potential to use 'client representative' model - KSD represents Korean IM clients at Euroclear
- 3 Korean IM agrees margin requirement with Foreign Broker Dealer using 'AcadiaSoft' MarginManager matching service
- 4 DTCC MTU performs all operational settlement messaging on behalf of KSD and ultimate client

# **DTCC**

*Securing Today. Shaping Tomorrow.®*

# Deutsche Börse Group

## Global Funding and Financing Solutions

CSIF Presentation Dec 4, 2020

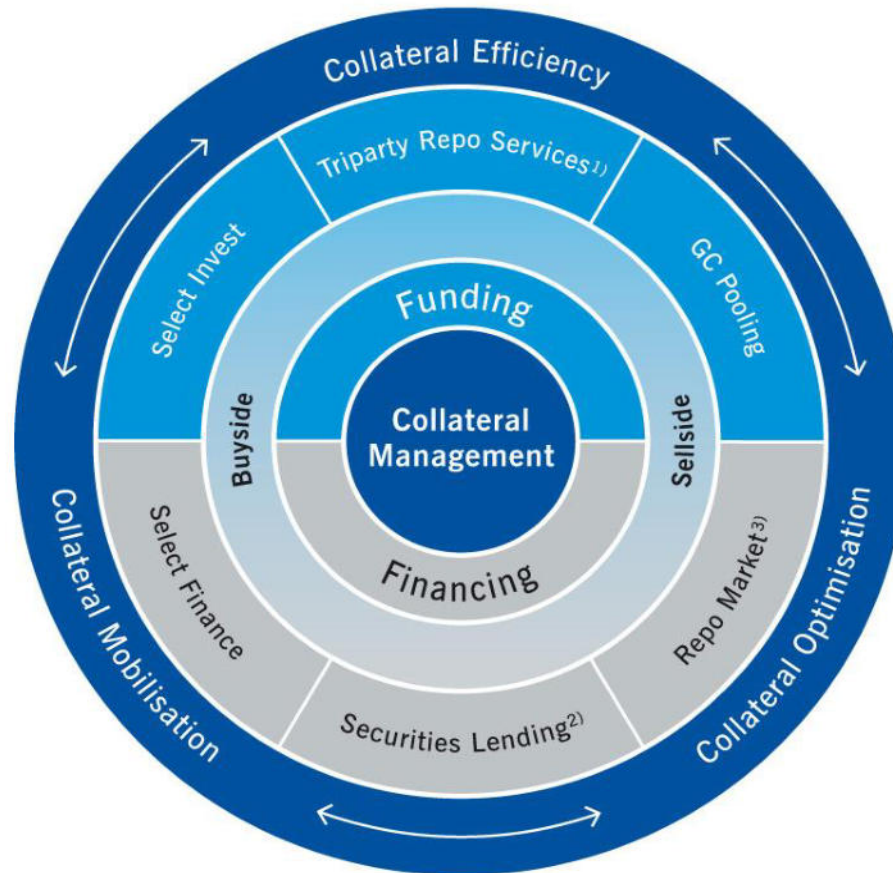
By Davin Cheung





# Global Funding & Financing

Aligning trading, clearing and post-trade activities across Deutsche Boerse Group



- More than **600** international institutions are using our funding, financing and collateral management solutions
- Thereof: More than **450** institutions use our Non-CCP and **150** our CCP-cleared services
- **4** different **cash currencies** (CHF, EUR, GBP, USD) are available for funding activities in the CCP-cleared world; over **20 cash currencies** used in the non-CCP world.
- More than **22,000 principal collateral** are offered for our funding and financing services (GC Pooling & Repo Market)
- More than **20,000 loan securities** are offered in our lending CCP

1) Including eTriParty

2) CCP & uncleared, Agency & Principal

3) Baskets / single ISINs



# Global Funding & Financing

## Understanding the challenges of the buy side and sell side

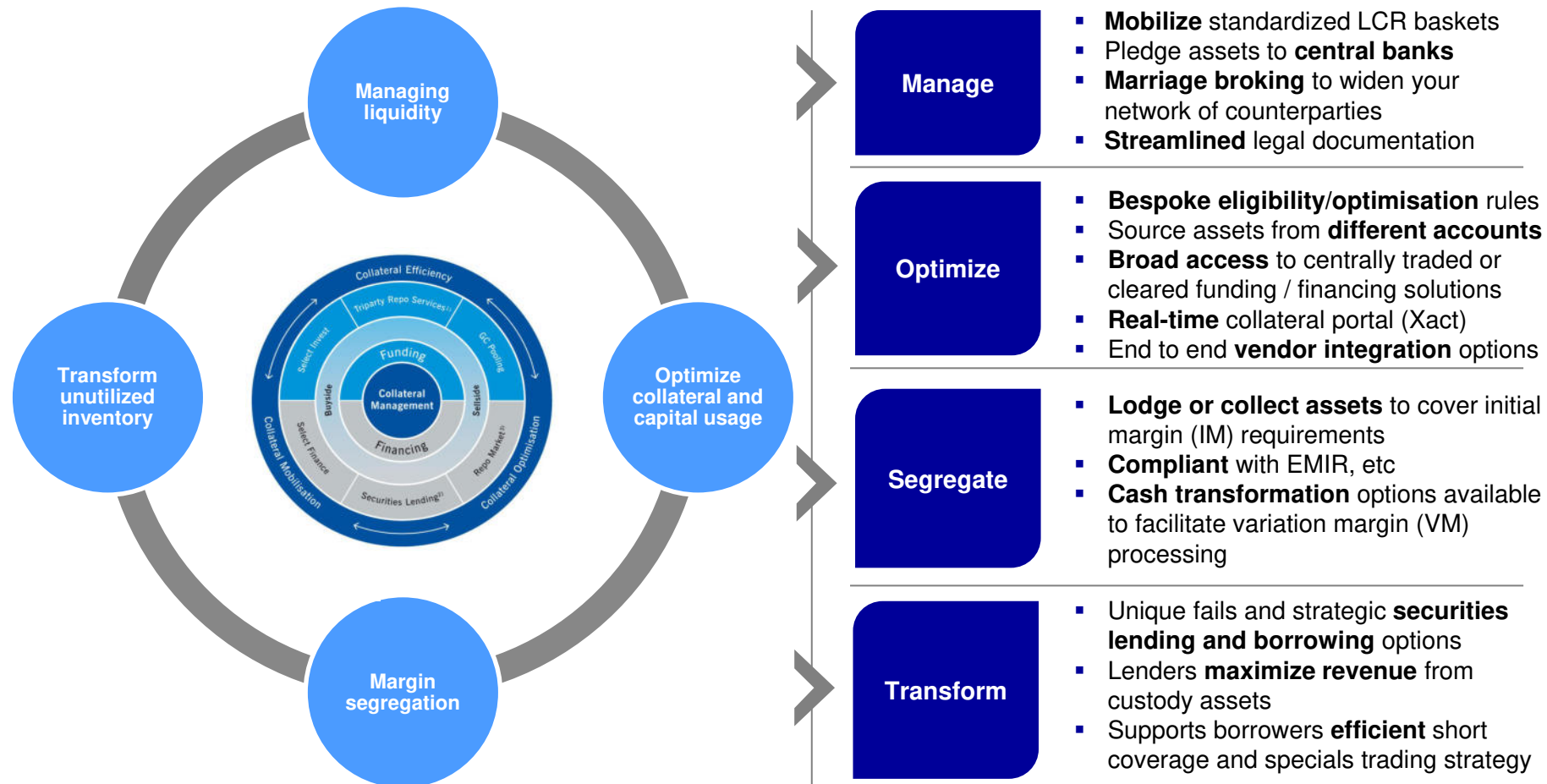
- Changes in global financial regulation have created **significant disruption** to traditional **bank and dealer operating models** as well as impact **buy-side counterparties** more than ever before. The **alignment** of our global funding & financing and collateral management services seek to address the requirements of the sell side and the needs of the buy-side.

Challenges	Actions for the sell side	Needs of the buy side
<ul style="list-style-type: none"> <li>Managing ongoing <b>regulatory change</b></li> <li>Capital <b>constraints</b> and <b>costs</b></li> <li>The impact of <b>low interest rates</b></li> <li>Ensuring effective access to <b>liquidity</b></li> <li>Internal processing <b>inefficiencies</b></li> </ul>	<ul style="list-style-type: none"> <li>Deploy an <b>efficient operating model</b></li> <li>Optimize <b>balance sheet</b> usage and maximize <b>netting</b> opportunities</li> <li>Prioritizing <b>non-cash and cash</b> inventory</li> <li>Streamline your <b>access</b> to counterparties</li> <li>Assess wholesale <b>integrated</b> solutions</li> </ul>	<ul style="list-style-type: none"> <li>Need to <b>buy, build or insource</b> a collateral management solution</li> <li>Identify how, where and when to utilize <b>centrally cleared</b> products</li> <li><b>Placing cash</b> efficiently, <b>raising cash</b> effectively</li> <li><b>Diversify</b> your funding and financing network effectively</li> <li><b>Leverage</b> and <b>integrate</b> the scalable solutions developed for and by the sell side.</li> </ul>

# Global Funding & Financing

Making it easier for clients to manage collateral and access liquidity

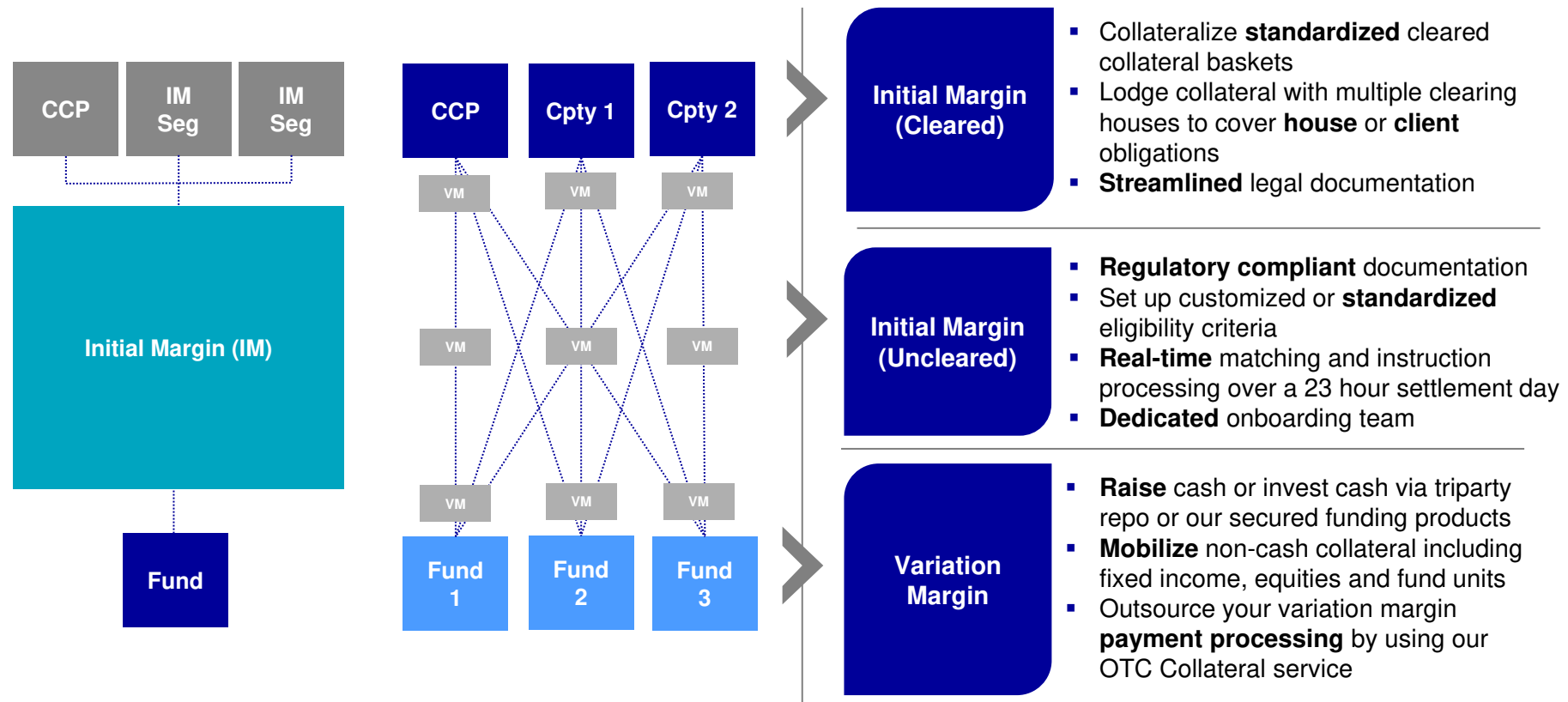
- **Collateral management** is central to our global funding and financing strategy and with our combination of **cleared and uncleared** solutions, we help our clients to not only optimize the use of their collateral and balance sheet but also maximize their access to a diverse range of trading and clearing counterparties.



# Global Funding & Financing

## Efficiency and scalability are critical to bilateral margining solutions

- We are also helping our customers to **comply** with the **uncleared** initial margin rules in the EU, Switzerland, Hong Kong, Singapore and Australia as well as the introduction of **variation margin**.
- For those clients **centrally clearing** repo, listed or OTC derivatives or even securities lending trades, it is important that clients have the ability to **optimize** the usage of their collateral in a timely manner with their clearing members or clearing agents.



# Global Funding & Financing

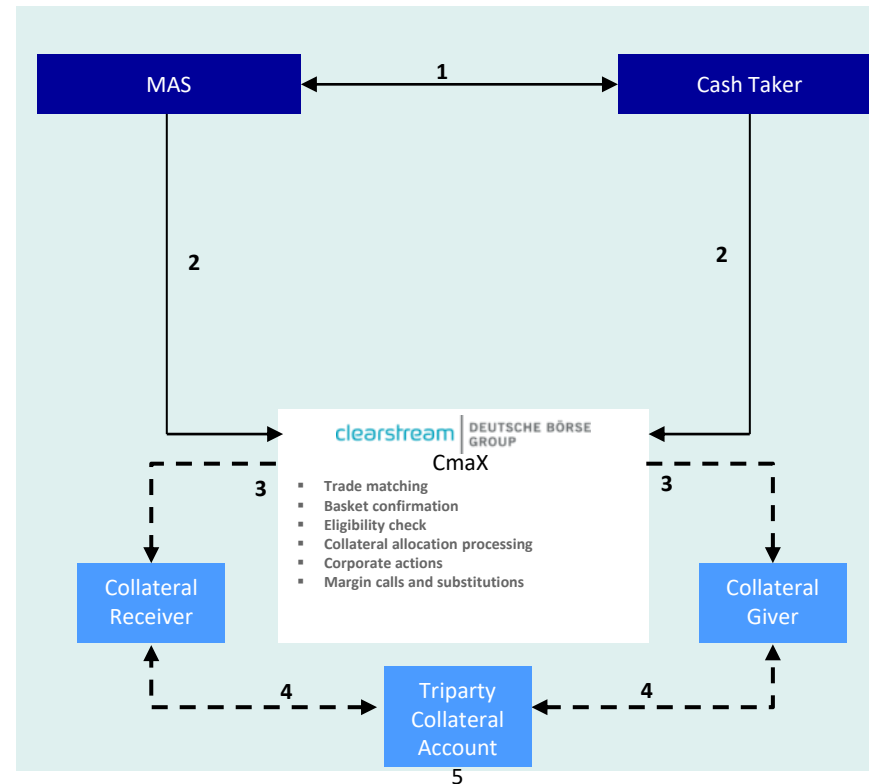
## Breaking our products down into the key building blocks

- Our **flexible triparty and OTC collateral management services** provide clients with a number of different **customisation** options that allow them to benefit from the scale and scope of our expertise.



# Global Funding & Financing

## Case study - Singapore : The mechanics of posting G10 securities as collateral to MAS to access USD/SGD liquidity

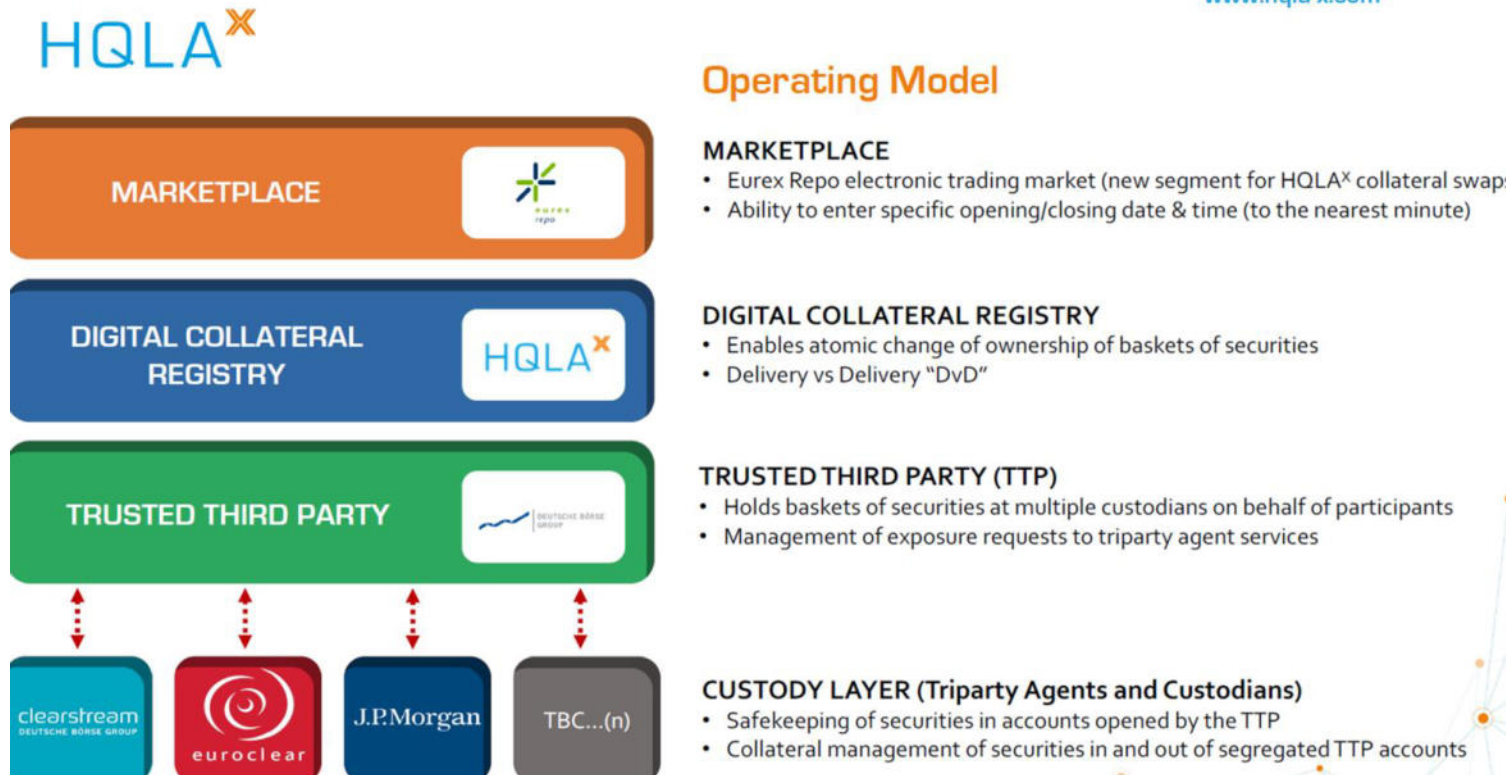


1. MAS and Cash Taker agree on funding exposure amount
2. Transaction details routed to Clearstream by parties directly
3. CmaX confirms transaction matching and initiates opening and eligibility checks
4. Collateral allocation
5. Clearstream continues to value and manage the collateral throughout the life-cycle of the trade (opening, margin calls, substitutions, closing)

# Global Funding & Financing

**Case study – HQLA<sup>x</sup>** : customers can use the Blockchain technology to mobilize collateral across settlement systems, collateral agents, CSDs/ICSDs without physically transferring them across borders

[www.hqla-x.com](http://www.hqla-x.com)





If you have any questions, please contact

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## SESSION 4

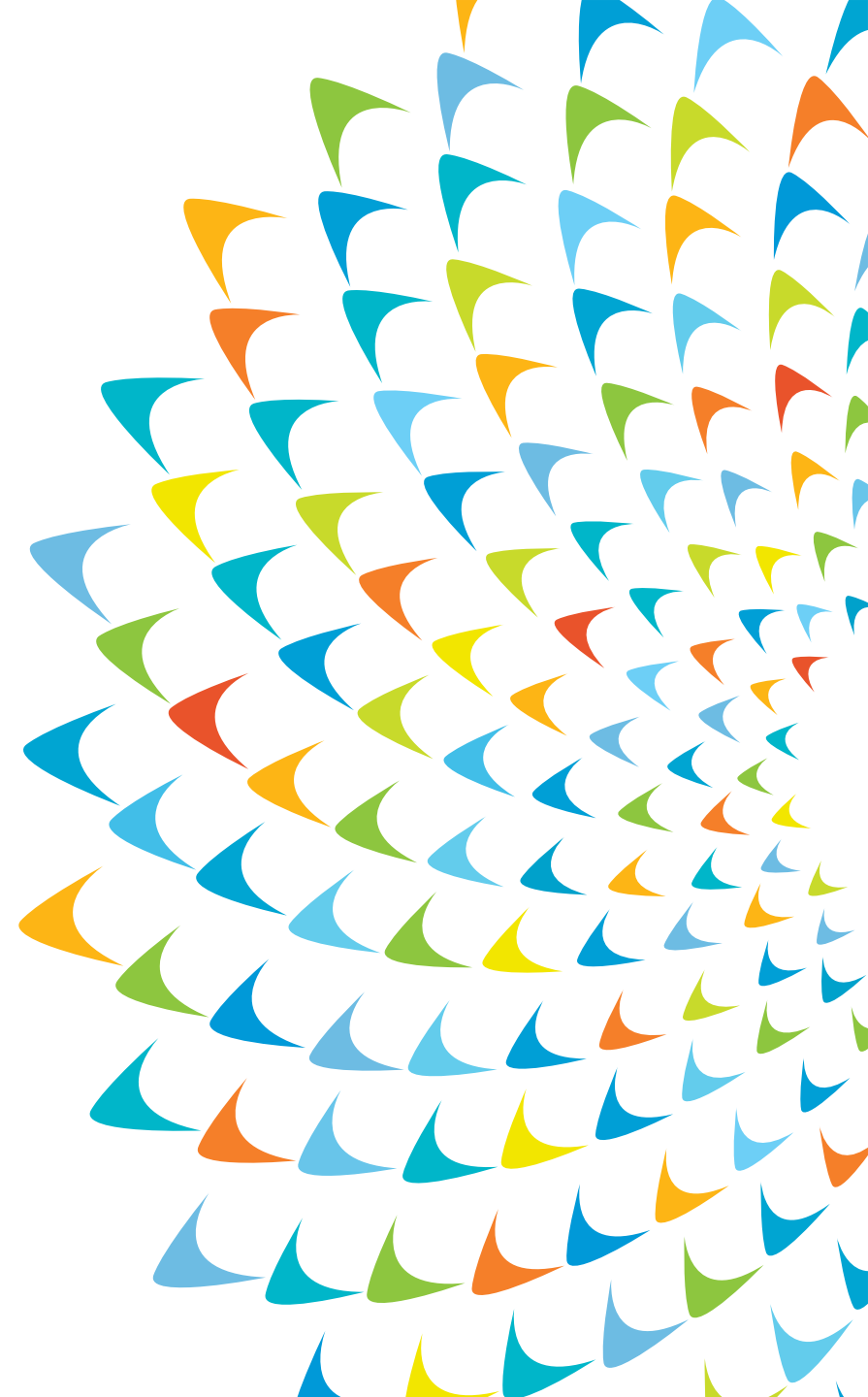
# Collateral Services of CSDs in Asia

**Fei Tao**

Lead Manager, Collateral Management Center  
China Central Depository & Clearing Co., Ltd (CCDC)

**Keukjin Choi**

Team Head of Derivatives and Collateral Services Team  
Securities Collateral Department  
Korea Securities Depository (KSD)





# CCDC Collateral Management and Cross-border Applications

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China Central Depository & Clearing Co., LTD.

FEI TAO

Collateral Management Center

# CONTENTS

01

Overview of CCDC Collateral Management Service

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02

Cases of CCDC Cross-border Collateral Service

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03

Innovations of Collateral Service Arrangement

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# 01

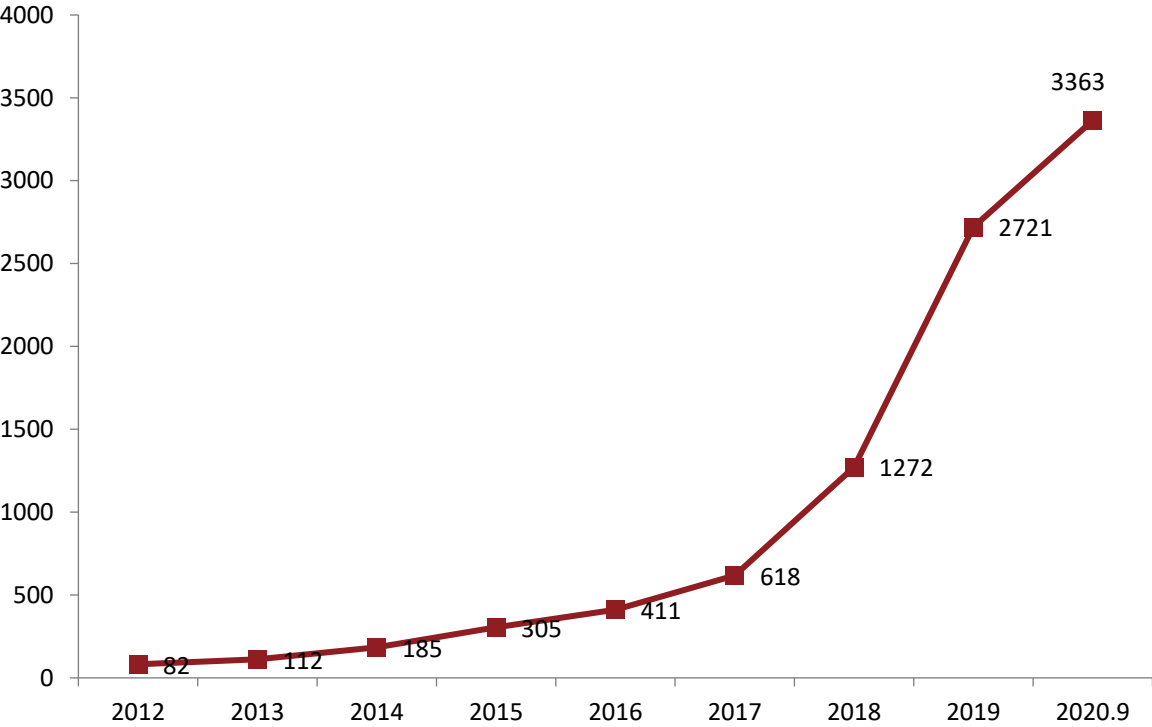
PART ONE

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## **Overview of CCDC Collateral Management Service**

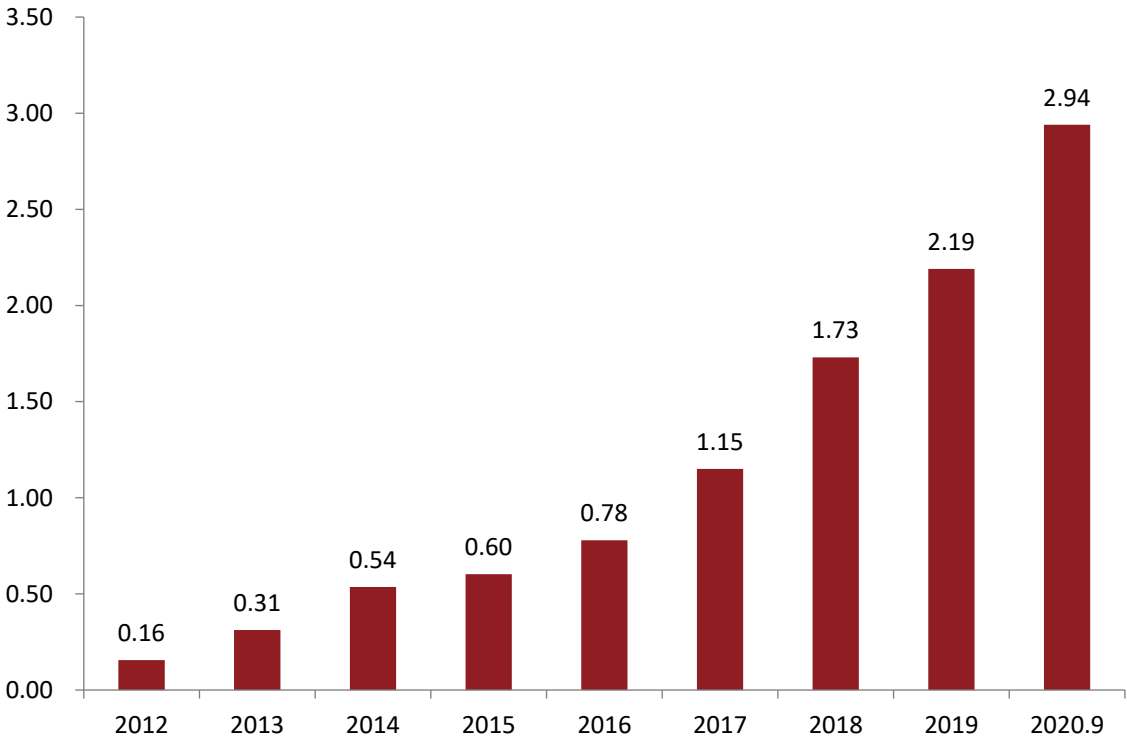
# Overview of China Bond Market

Number of accounts of foreign investors (Direct Access&Bond Connect)



Data Source: CCDC & Bond Connect

Bond holdings of overseas investors (in trillion RMB)

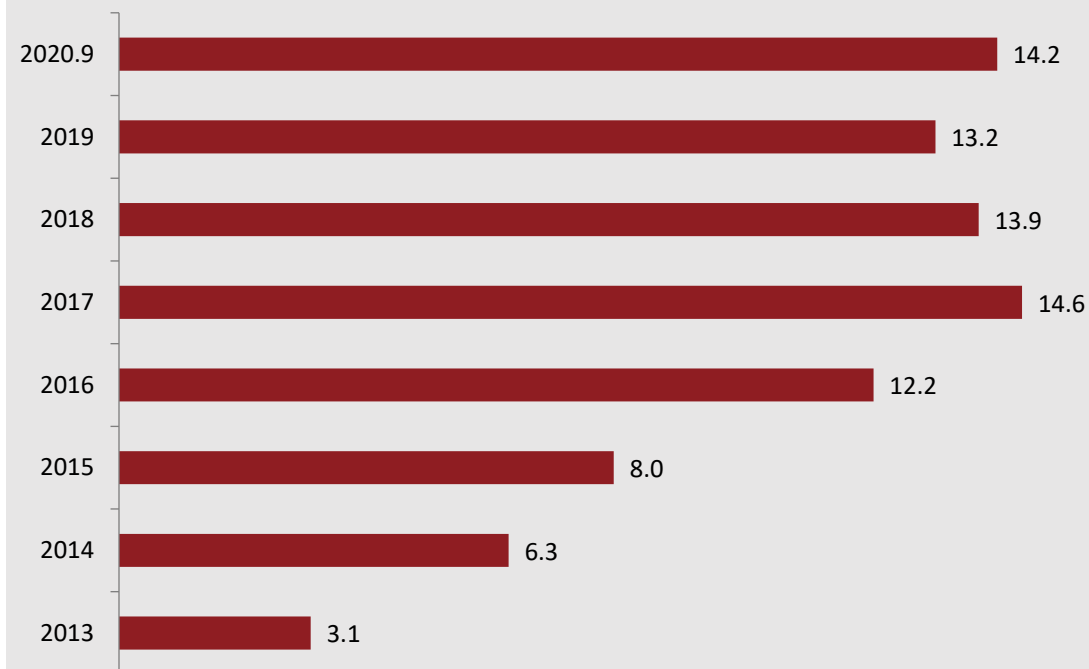


# Overview of CCDC Collateral Management

Field	Balance	Ratio
China Bond Market	114.44	100%
Bonds deposited in CCDC	74.45	65.06%
Bonds pledged in CCDC	14.24	12.44%

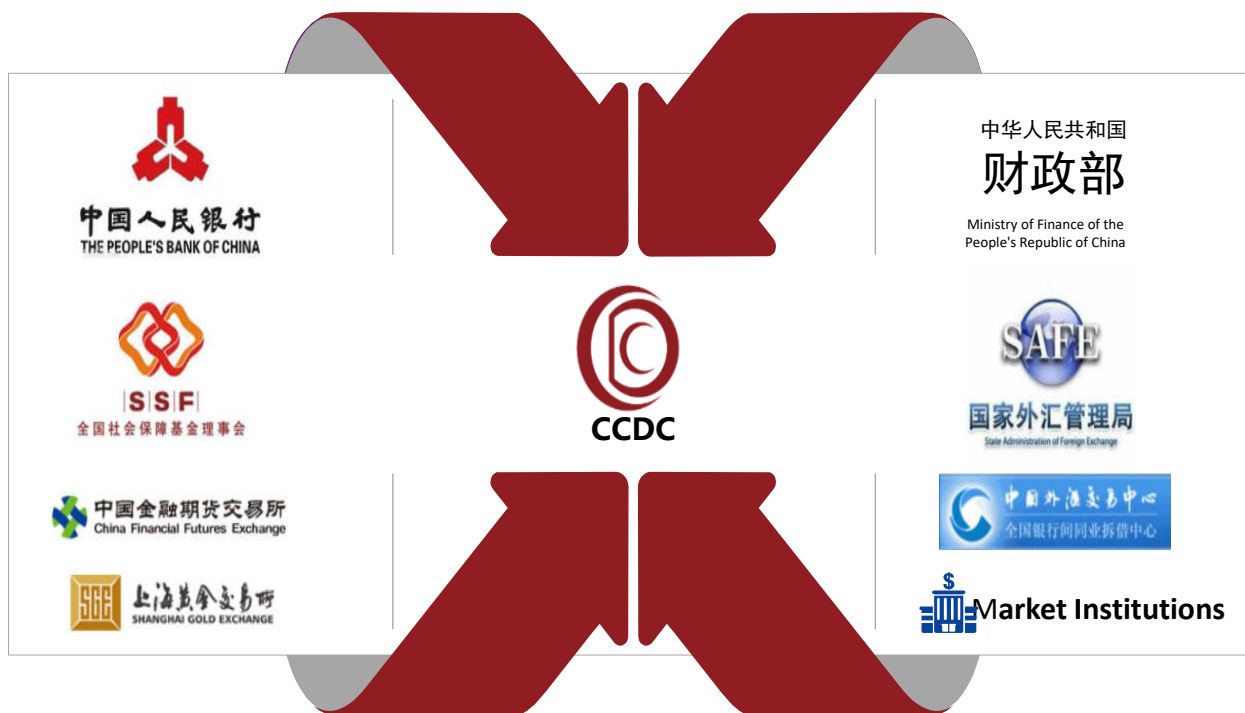
By the end of Sep 2020  
Unit : Trillion RMB

## Collateral under the management of CCDC (in RMB trillion)

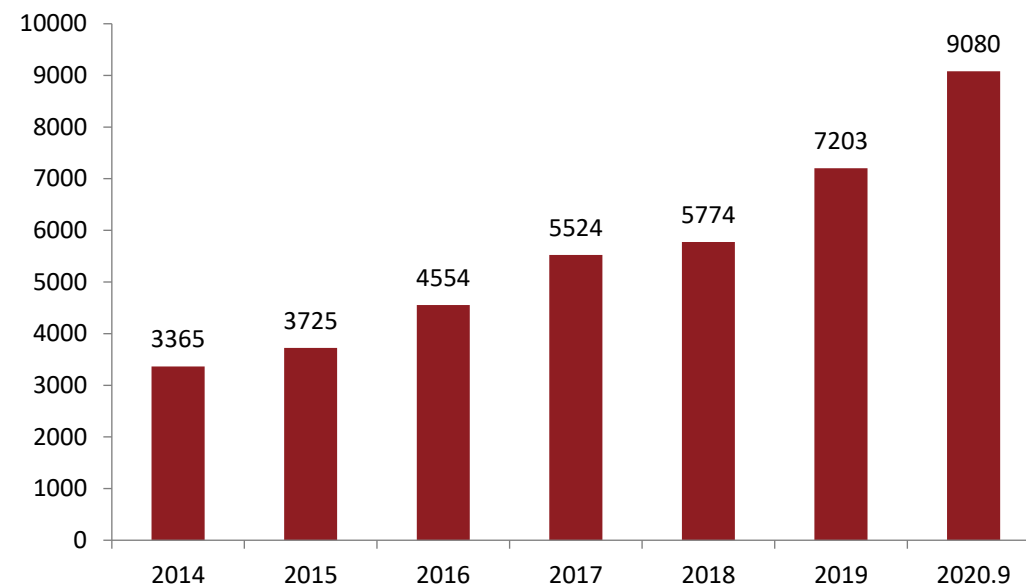


# Overview of CCDC Collateral Management

We provide services to **9080** market institutions

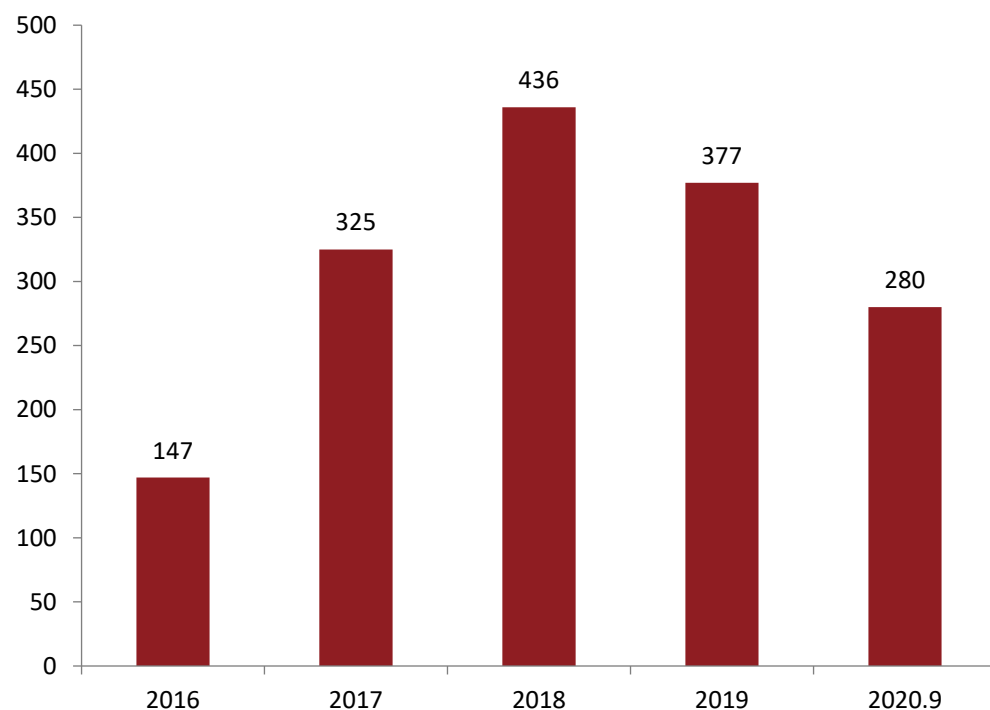


## Number of clients of Collateral Management Center



# Overview of CCDC Cross-Border Collateral Service

## Cross-border collateral business balance ( in RMB 100 million, 2016-2020.9)



Data Source: CCDC

- Expansion of our cross-border business is our next focus.
- By the end of September, the balance of collateral for our cross-border business exceeded **RMB 28 billion.**

## 10th China-UK Economic and Financial Dialogue

- Jointly promoting **RMB bonds** as common qualified collateral accepted by **the UK market**



02

PART TWO

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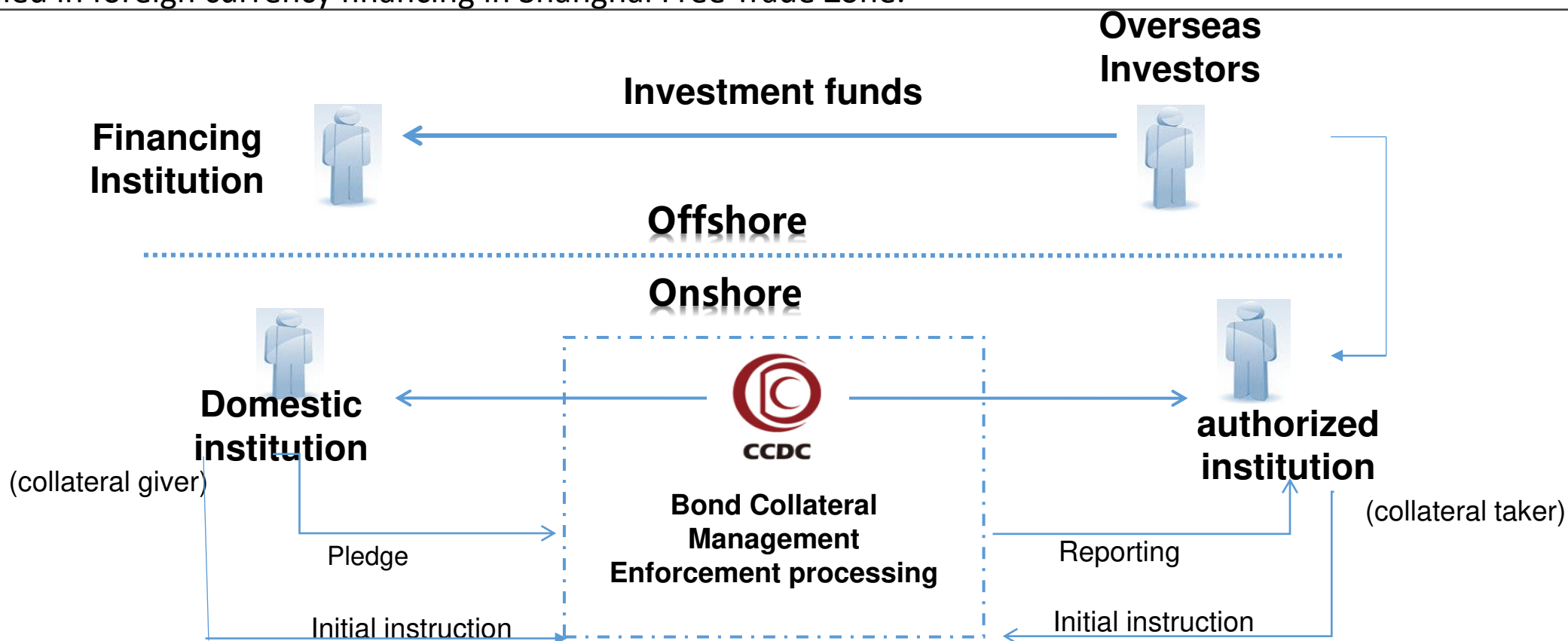
**Cases of CCDC Cross-border Collateral Service**



# Cases of CCDC Cross-Border Collateral Service

## Support Overseas financing under Domestic Pledge

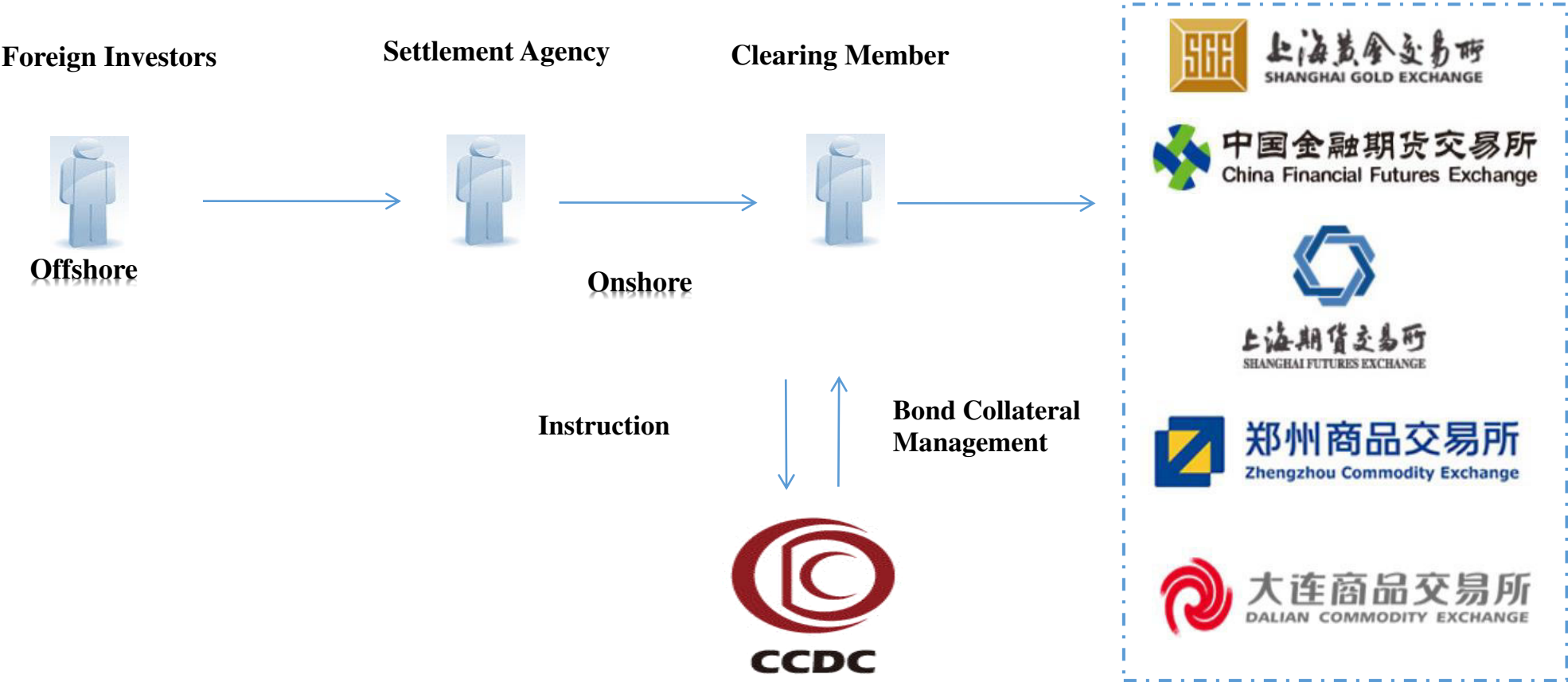
For multinational institutions, its branch in China could pledge the holding RMB bonds as collateral, to support its financing in overseas market. While the counter party could let its branch in China or find an agency to work as the collateral receiver. This business has already carried out by several Chinese and foreign banks. This year, this business has also applied in foreign currency financing in Shanghai Free Trade Zone.



# Cases of CCDC Cross-Border Collateral Service

## Support Bond as Margin in Derivatives Trading

Foreign investor can use the RMB bonds instead of cash as the margin. By the end of Sep 2020, the balance of collateral under this business exceeded **RMB 21 Billion.**





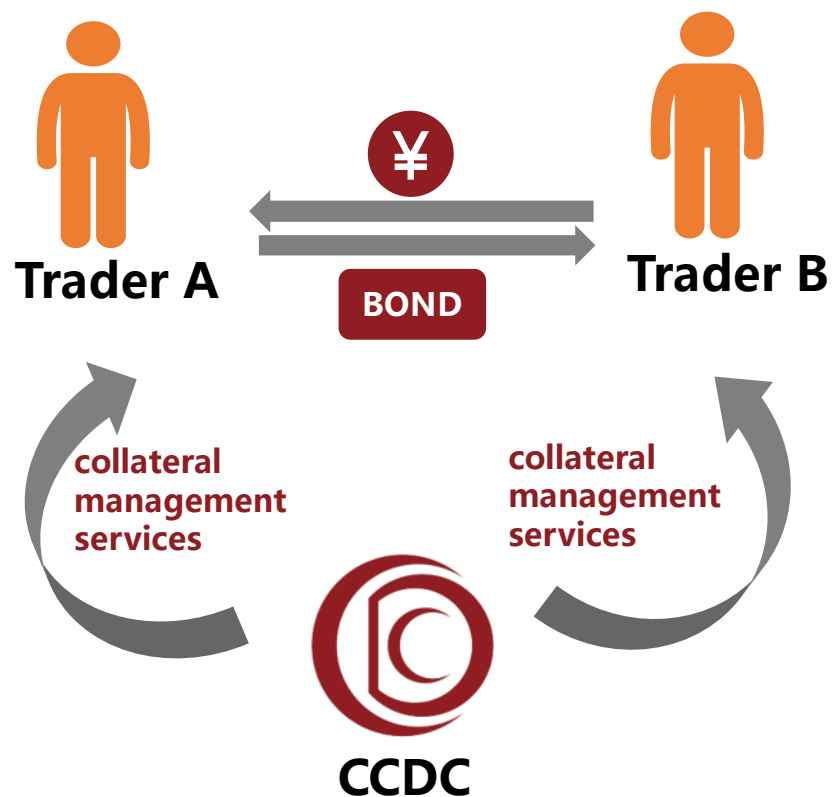
# 03

PART THREE

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## **Innovations of Collateral Service Arrangements**

# Innovations of Collateral Service



## Tri-Party Repo

- ☐ The core of tri-party repo is the introduction of a central securities depository acting as a third party to provide centralized and professional collateral management services.
- ☐ In October 2018, PBOC officially announced the launch of tri-party repo in CIBM.



**RMB Bond as  
Margin in Global  
Markets**

- **CCDC :exploring cooperation with overseas exchanges to promote the inclusion of RMB bonds in global eligible collateral pools, to meet the needs from institutions to be qualified with the Uncleared Margin Rules (UMR).**



- **In September, CCDC and ISDA released a joint white paper, discussing from an international point of view the feasibility of using RMB bonds as margin for OTC derivatives transactions in international markets.**

# Overview of CCDC Cross-Border Collateral Business



中央国债登记结算有限责任公司  
CHINA CENTRAL DEPOSITORY & CLEARING CO., LTD.

## CCDC+ Cooperation



# Thank You!

---



中央国债登记结算有限责任公司

CHINA CENTRAL DEPOSITORY & CLEARING CO., LTD.

Tel: +8621 60813316

E-mail: [taofei@chinabond.com.cn](mailto:taofei@chinabond.com.cn)

Dec 3, 2020

# **Collateral Management**

## **Current status and future plan**

**Dec. 4, 2020**

**Korea Securities Depository**

Team Head of Collateral Department

**Keukjin Choi**

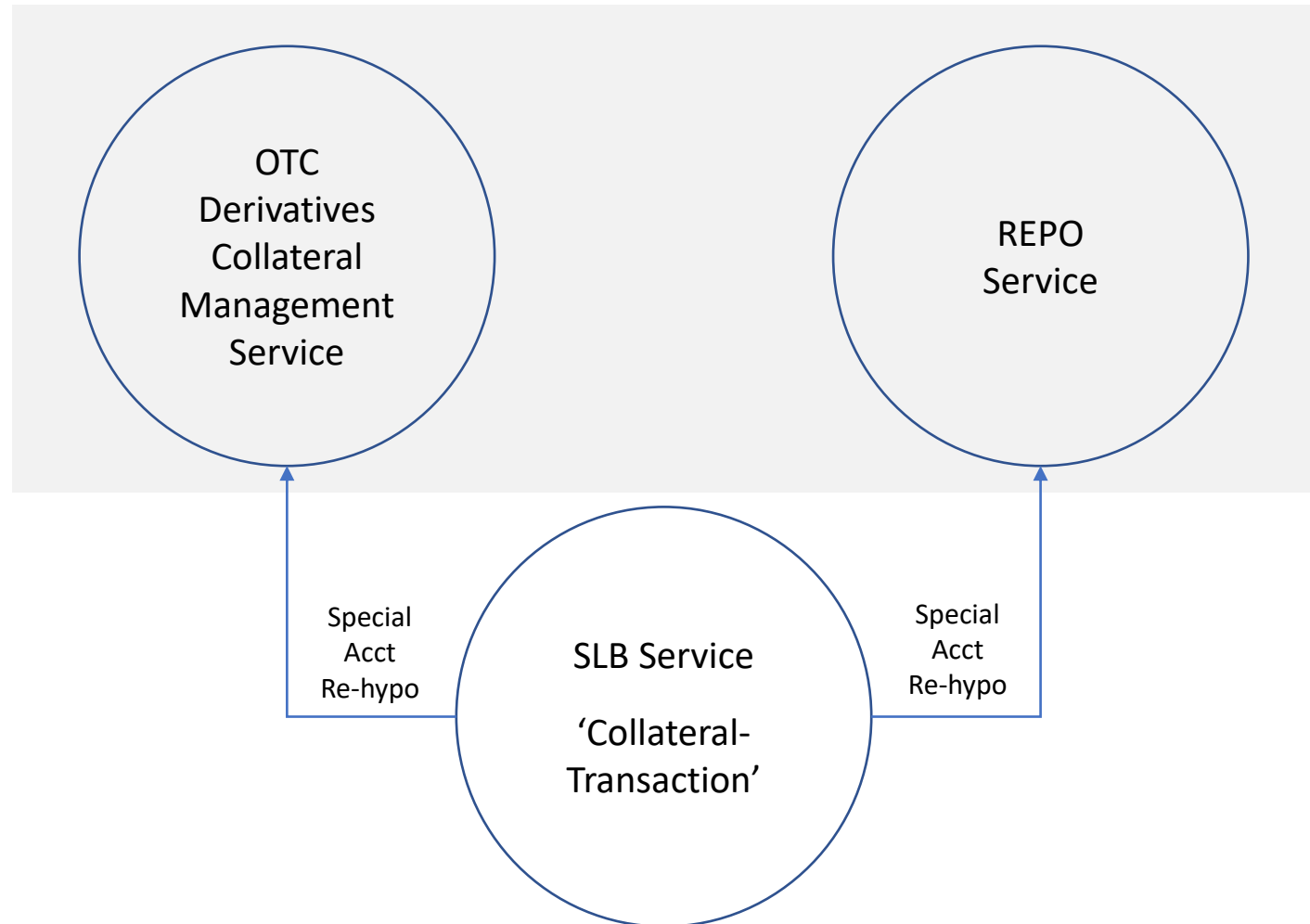
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kjchoi@ksd.or.kr



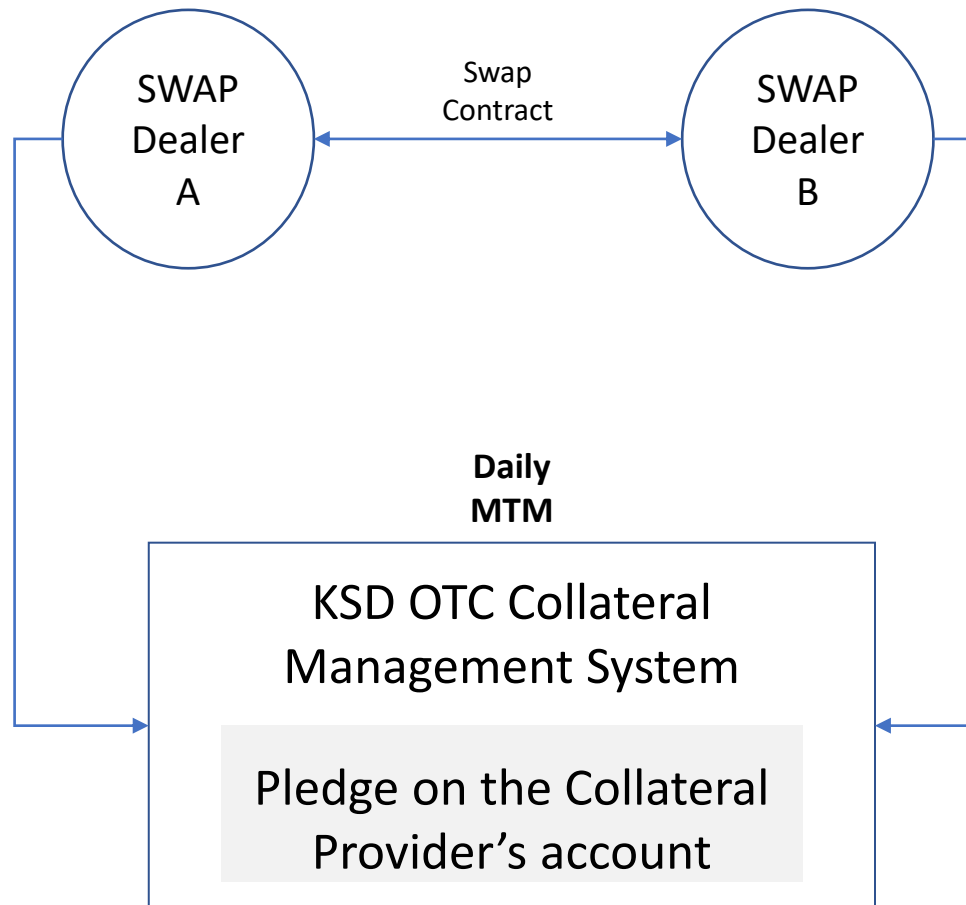
# The Collateral Management Structure of KSD

- Pledge for Variation and Initial Margin
- Swap collateral
- MTM & Corporate action



- Title transfer (Settlement)
- MTM & Corporate action.
- Institutional Repo
- Customer Repo
- BOK Repo

# The OTC Derivatives Collateral in KSD



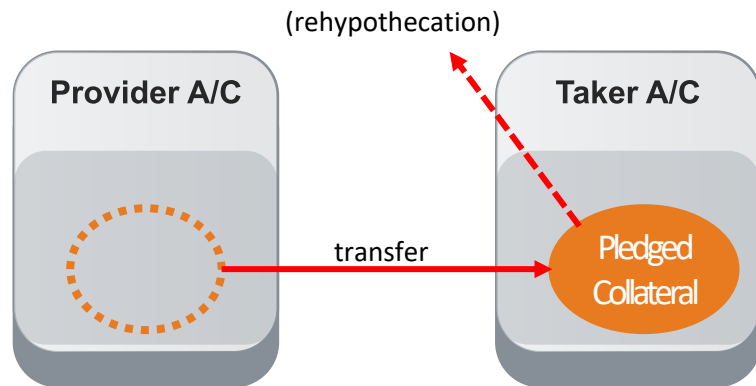
- 2002, OTC Collateral Derivatives Collateral Service
  - ✓ ISDA CSA based
- 2013, adopted Synthetic ETF
  - ✓ Swap embedded
- 2015, BCBS/IOSCO Margin Requirements for non-centrally cleared derivatives
- 2017, Newly developed system for CCP non-cleared OTC Derivatives Margin Exchange (Variation Margin)
- 2021, Sept. Initial Margin

# Pledge in Korea

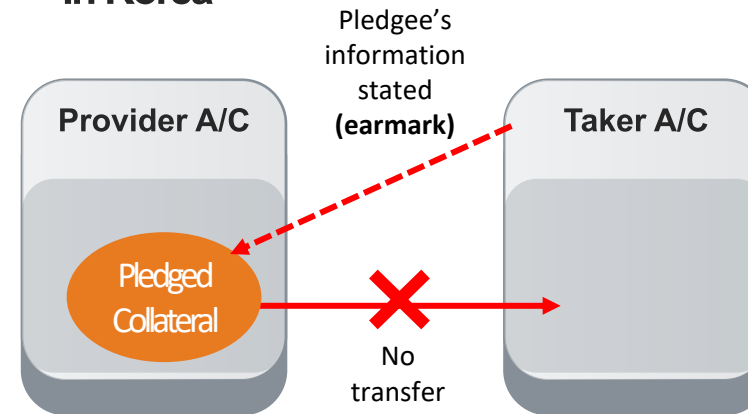
## Key difference of pledging collateral in Korea

- Unlike the outside of Korea, the collateral remains and is pledged in the posting party's account

### ✓ Outside Korea



### ✓ In Korea



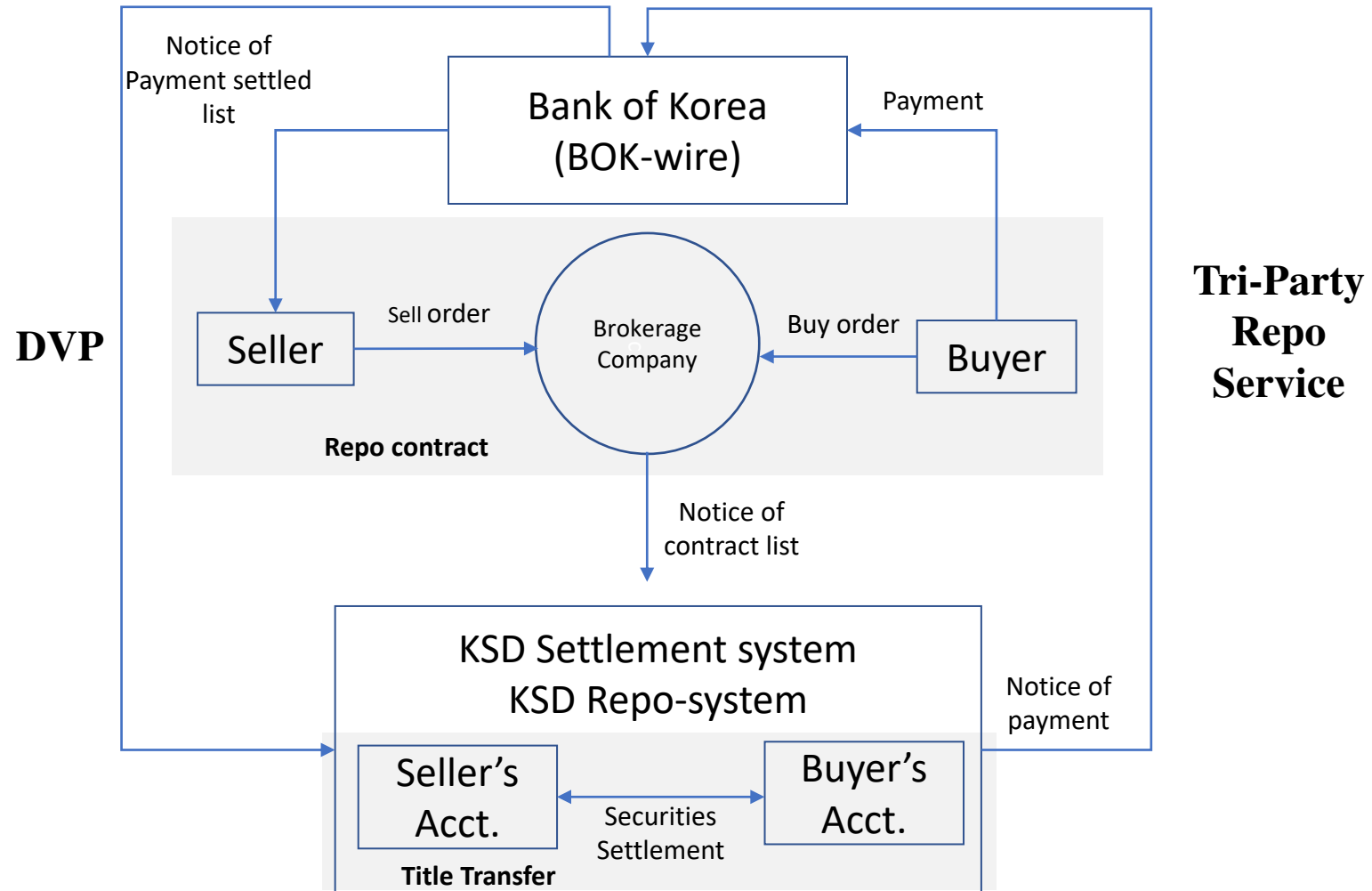
### ✓ The protection of the right of collateral taker

- Since the collateral is in posting party's account, the secured party cannot freely dispose it. (In Korea, rehypothecation is originally prohibited)
- Since disposal of the collateral is restricted once collateralized, the posting party cannot freely dispose it unless the taker agrees.
- Even if either party becomes or is declared insolvent or bankrupt, a derivatives transaction still remains effective so the collateral doesn't revert to the bankruptcy estate.  
※ Debtor Rehabilitation and Bankruptcy Act Article 120 (3)

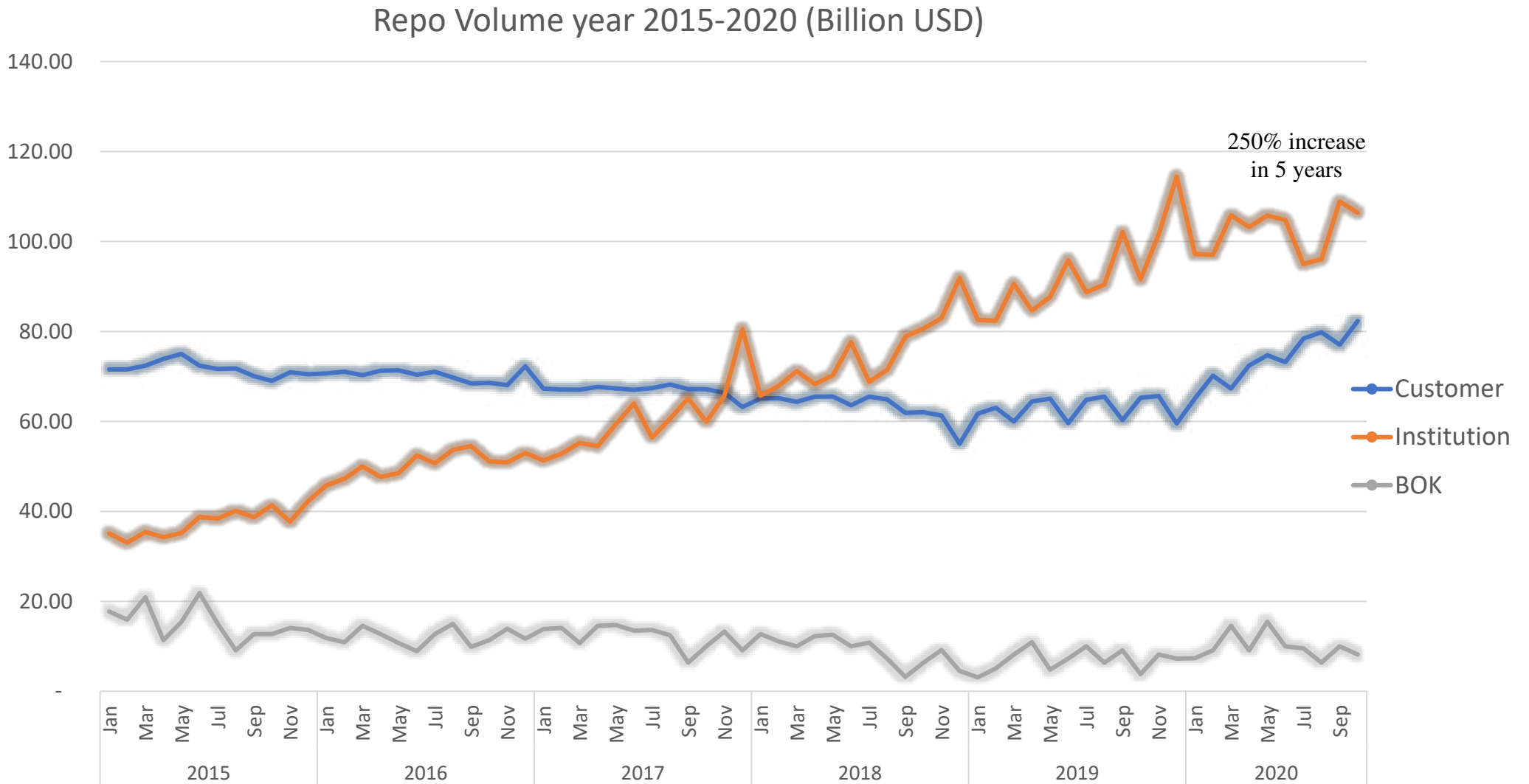
# Collateral Re-use Issues

- Pledge method is one of the issues in the collateral market
  - By law, the collateral re-use is prohibited and should be pledged in the collateral provider's account
- KSD developed “Collateral Transaction” system
  - Through ‘Repo special account’ and ‘SLB special account’
  - Avoid double tax and Collateral rehypothecation
  - For re-use (still prohibited for initial margin and selling)

# The Repo Transaction in KSD

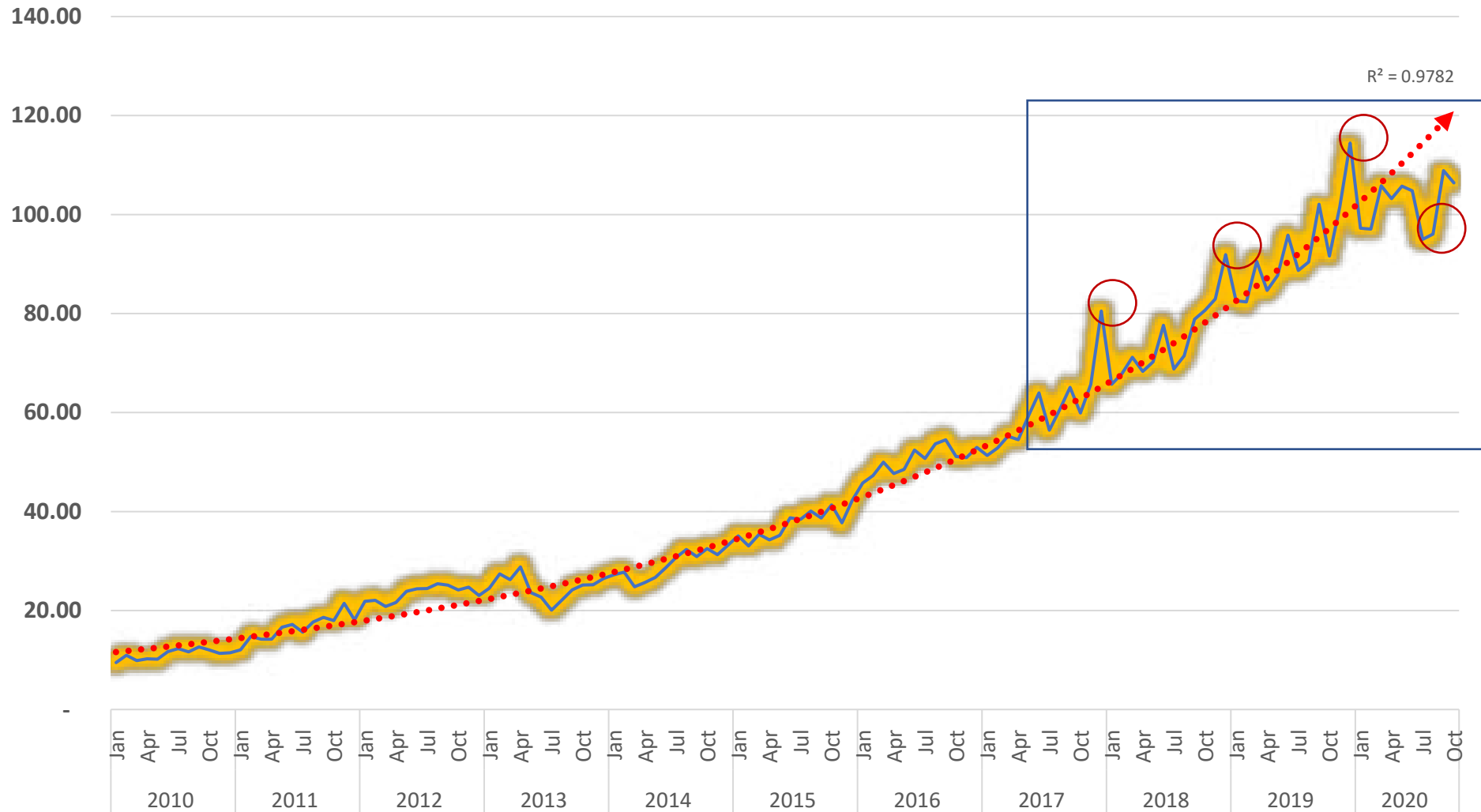


# The Repo Volume in KSD

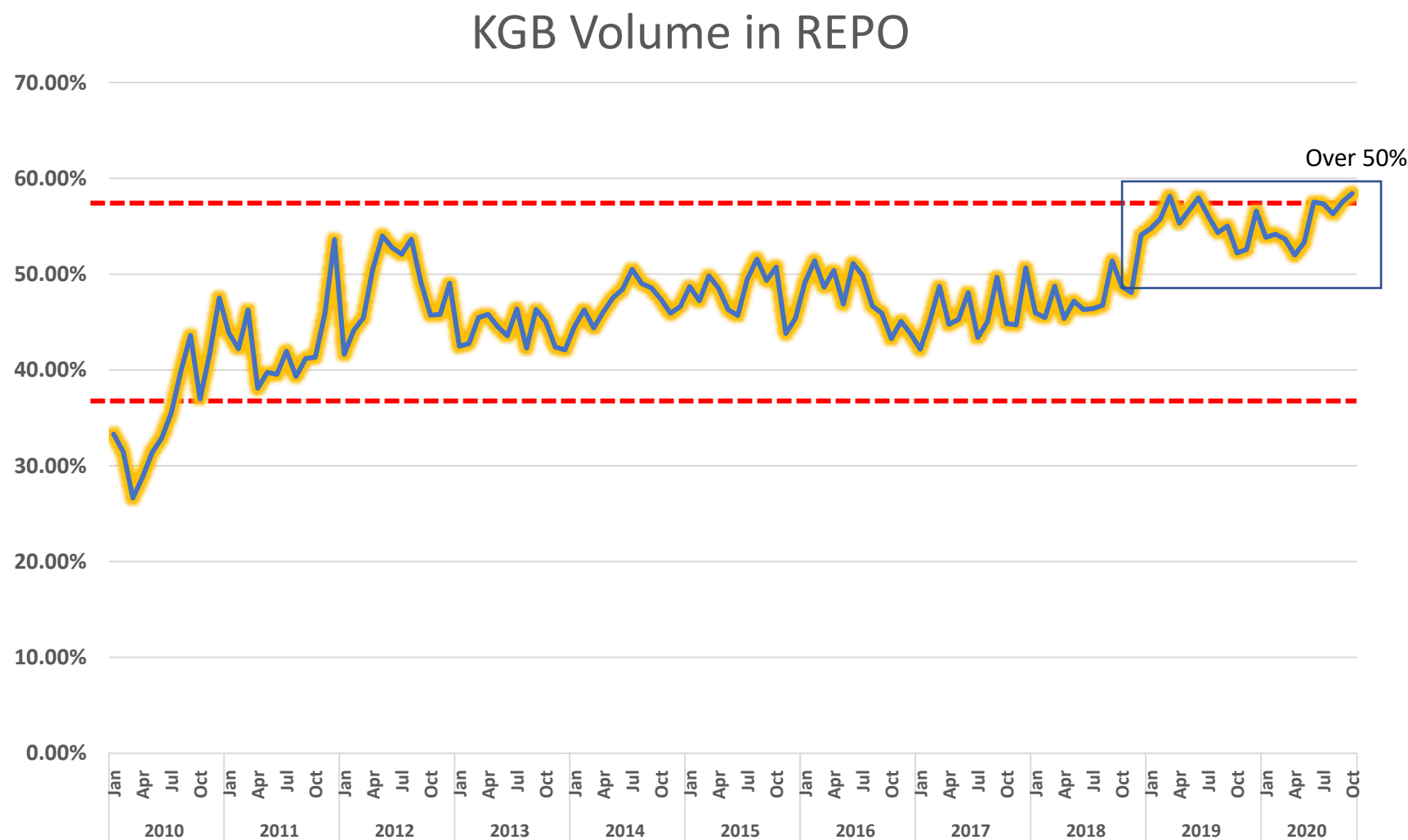


# Institutional Repo Volume

REPO Monthly Outstanding Year 2010-2020 (Billion USD)



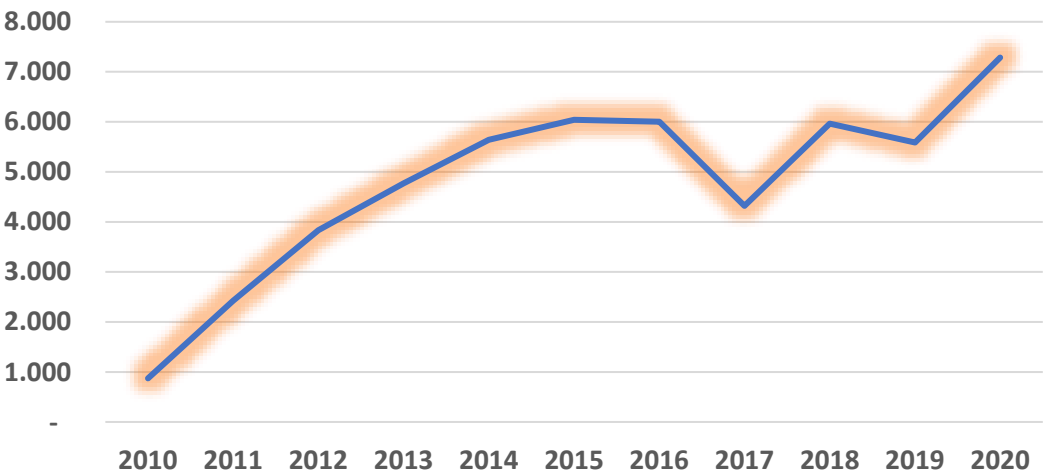
# KGB Ratio of Monthly Repo Outstanding



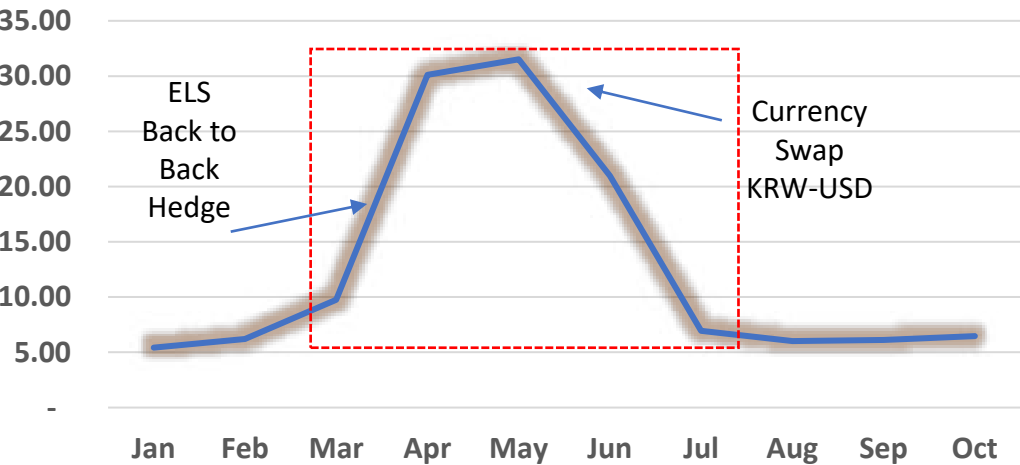


# OTC Derivatives Collateral Volume

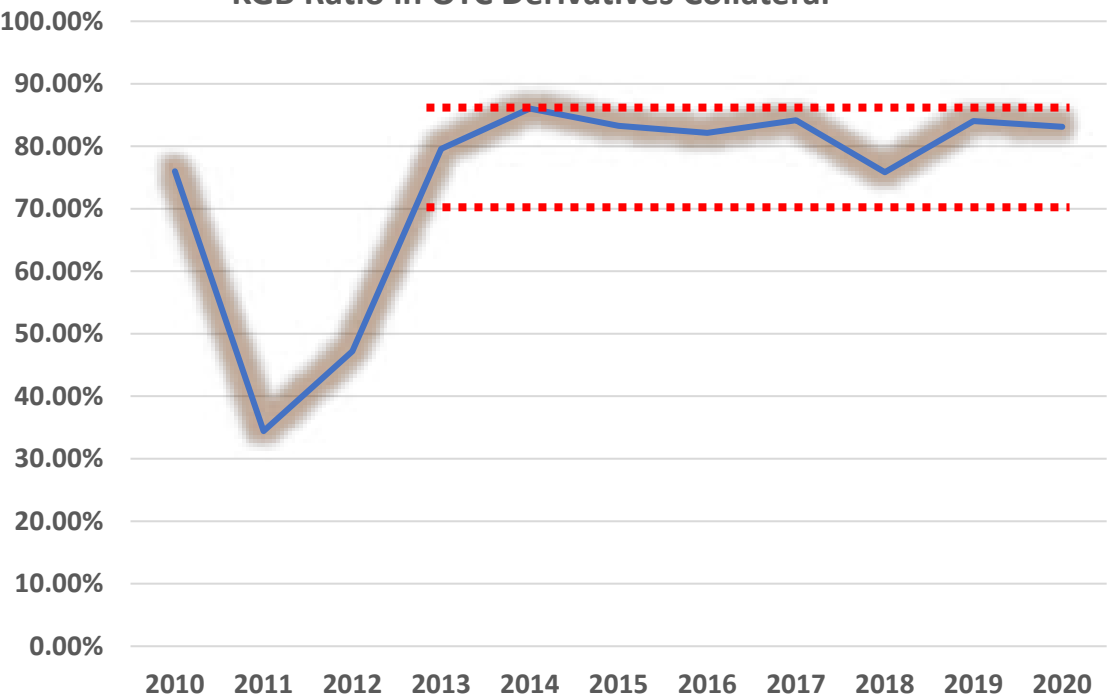
OTC Derivatives Collateral Outstanding (Billion USD)



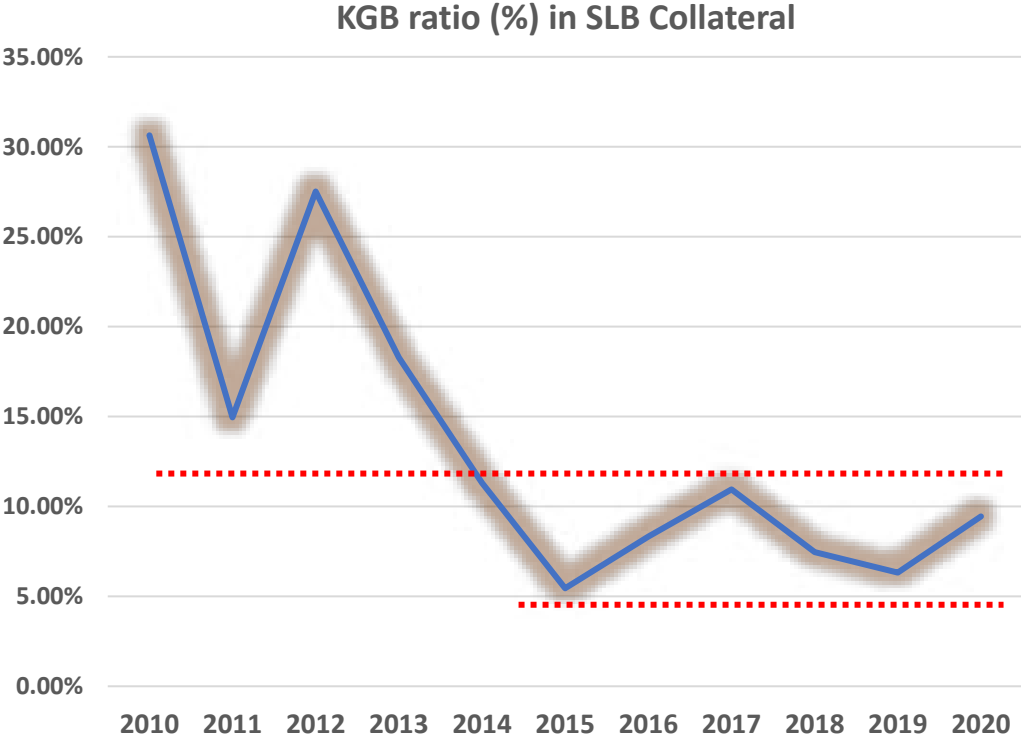
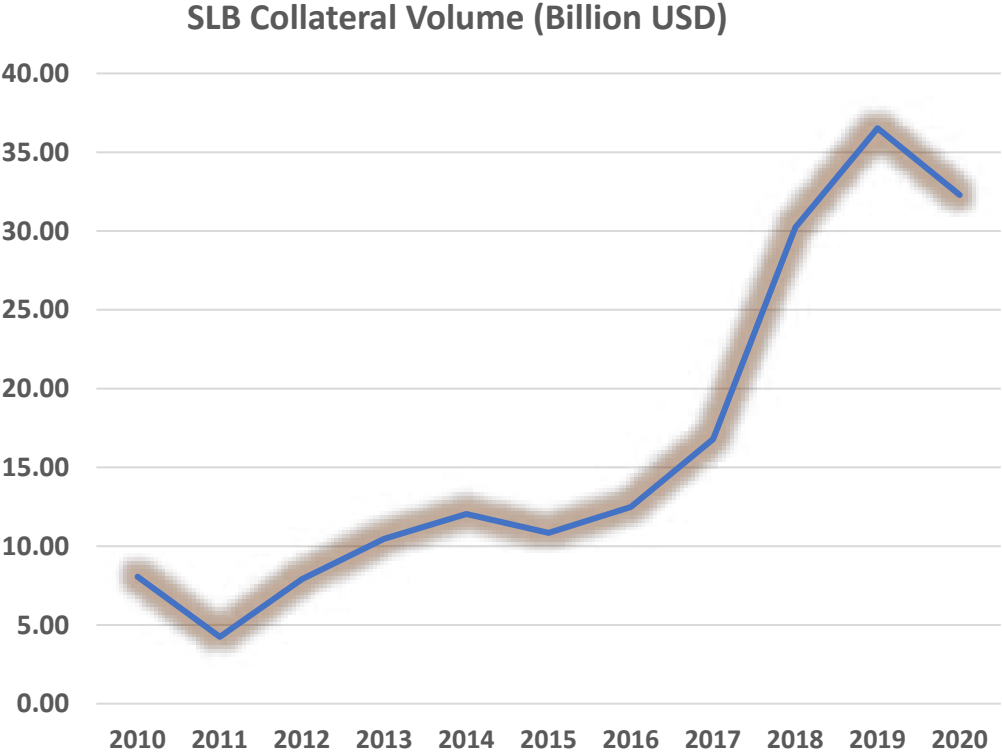
Year 2020 (Billion USD)



KGB Ratio in OTC Derivatives Collateral



# SLB Collateral Volume



# Future Plan – OTC Derivatives Collateral

## 1. Direct Collateral automation between the offshore and KSD

- ✓ Collateral posting via SWIFT
- ✓ Currently foreigners must designate local custodian

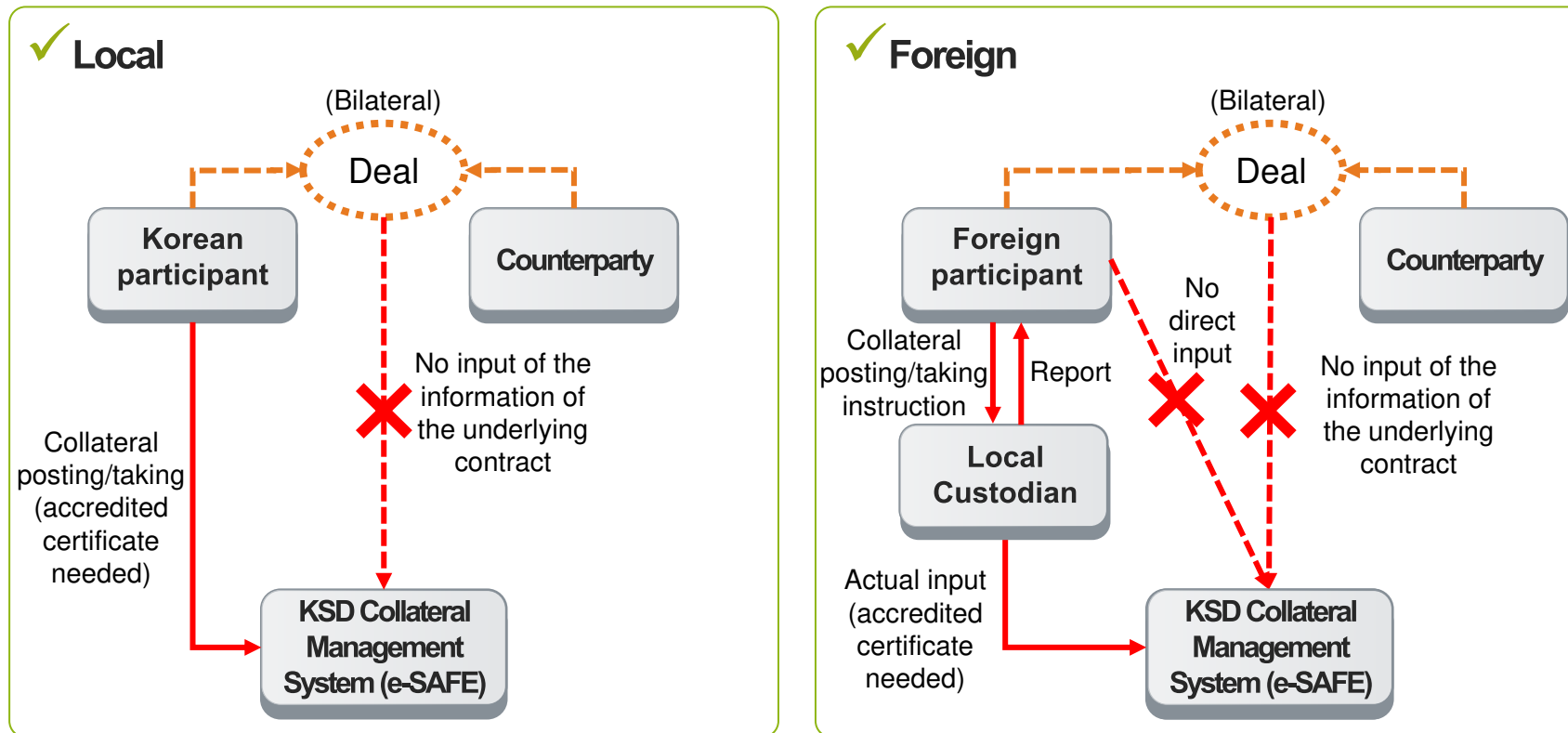
➤ Connection with ICSD and Global Custodian

# Connection to the participants

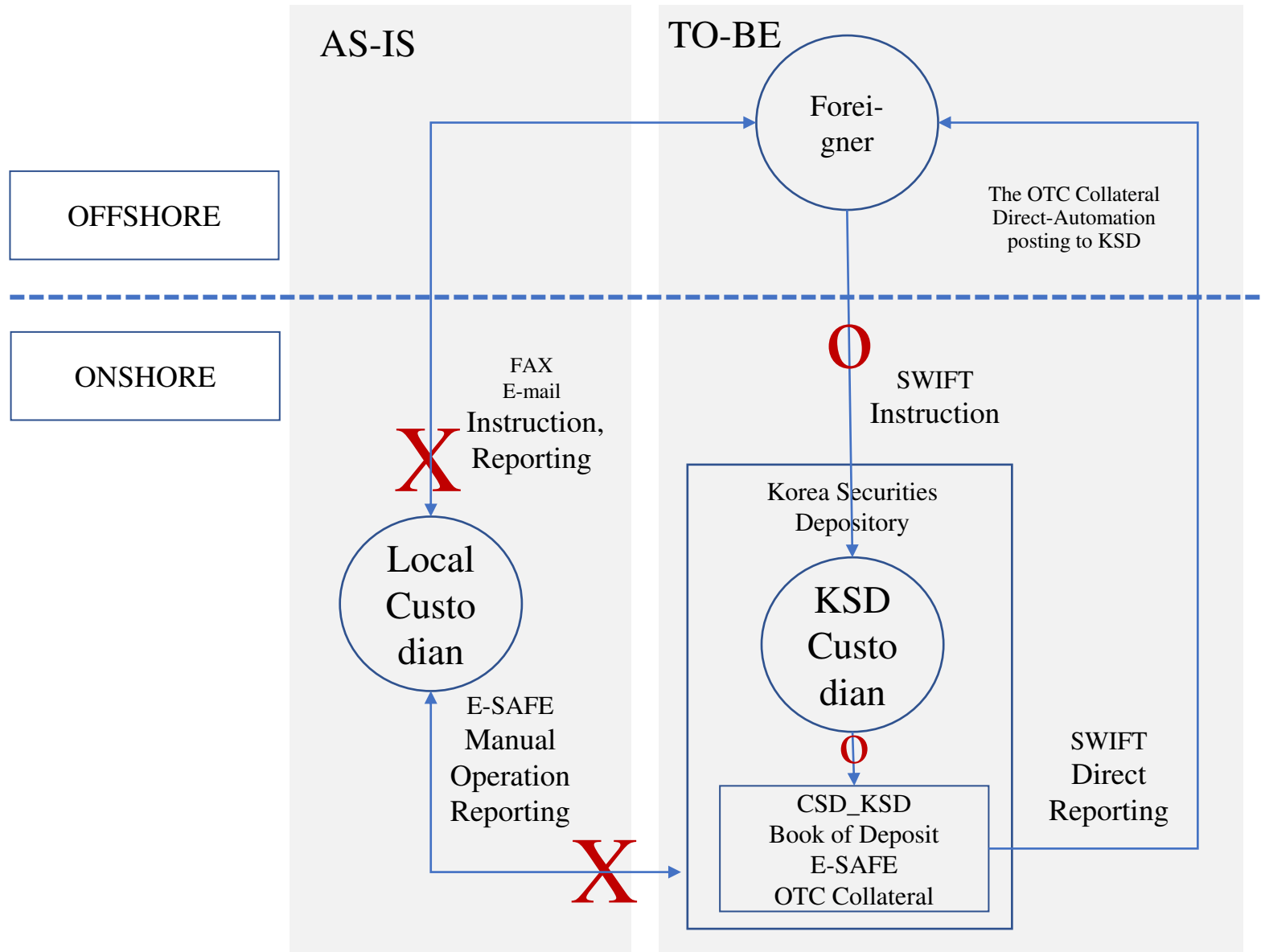
## Operation Process (Local vs. Foreign)

### Key difference in using KSD system between Korean and foreign participants

- While local participants can log on to the system directly, local custodians do it on behalf of foreign participants and report to them.



# OTC Collateral Direct-Automation to KSD



# Future plan - Repo

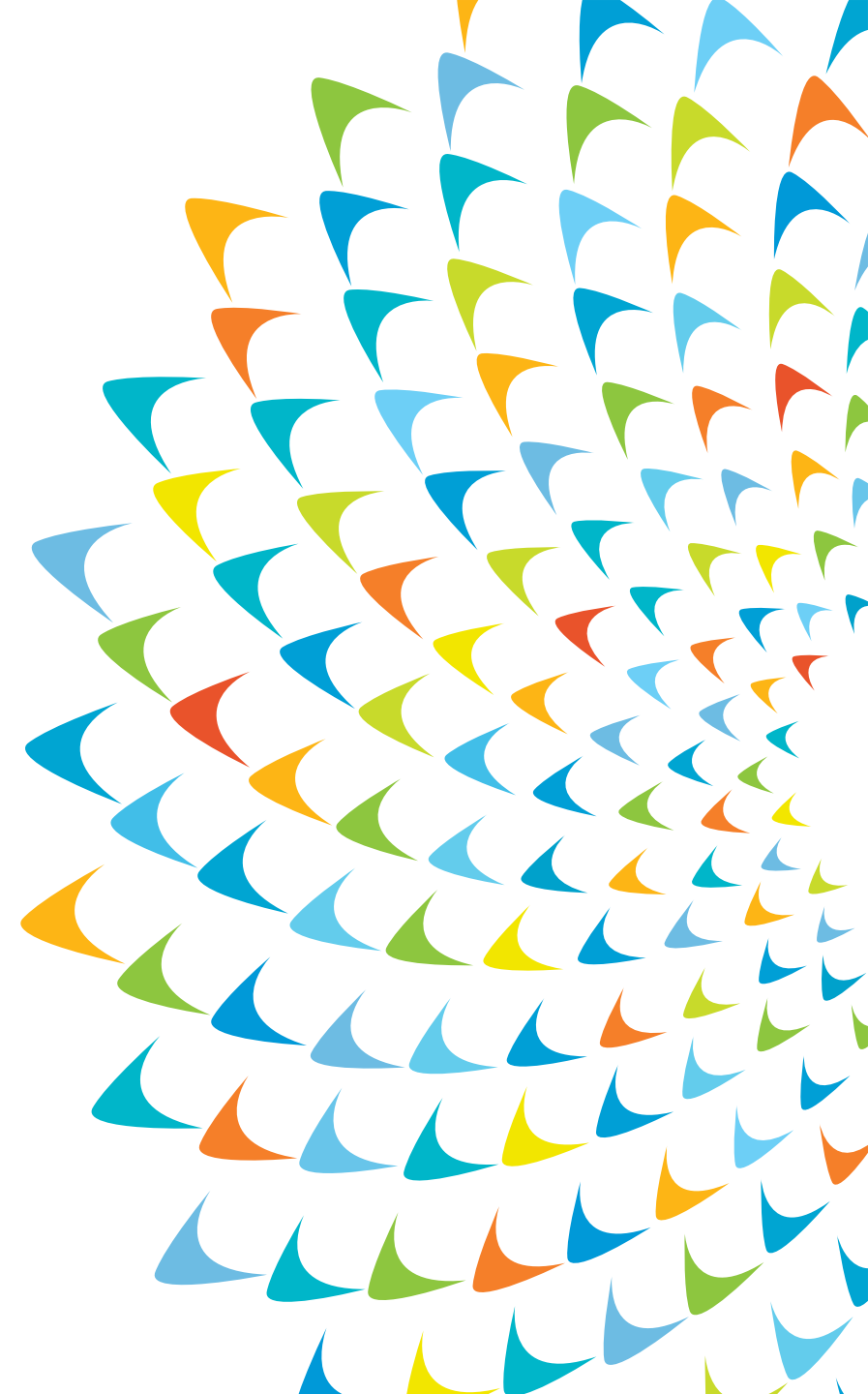
## 2. Foreign Fund DVP in Repo

- ✓ KRW + USD, JPY, EURO etc. (Currently FOP)
- KRW and foreign denominated cash settlement in KSD

## 3. Trade Repository & Repo Index

- ✓ Public disclosure and Risk Management
- ✓ Repo Index in stead of Call rate : Base rate

# Q & A

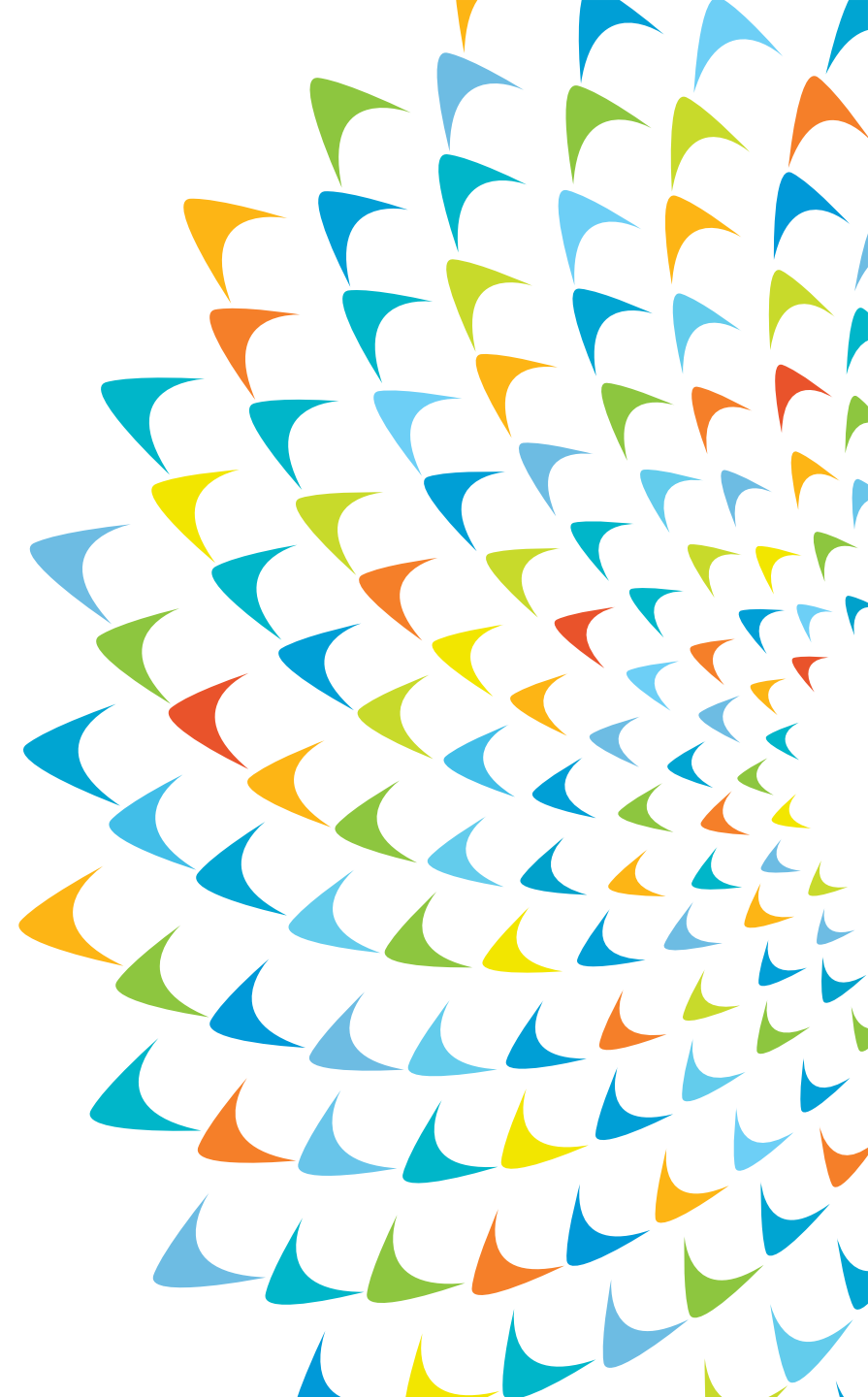




# CLOSING REMARKS

**Satoru Yamadera**

Principal Financial Sector Specialist  
Asian Development Bank







*Thank you  
for your  
participation*

