ASIAN BOND MARKETS INITIATIVE
ASEAN+3 Bond Market Forum (ABMF)

32nd ASEAN+3 Bond Market Forum (ABMF) Meeting

China Capital Market Institute (CCMI), Shenzhen, People's Republic of China

17-18 October 2019

The ASEAN+3 Bond Market Forum (ABMF) was established in May 2010 by the finance ministers of the Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China, Japan, and the Republic of Korea—collectively known as ASEAN+3—under the Asian Bond Markets Initiative (ABMI). The Forum is the only regional platform of which actions and recommendations are reported to the ASEAN+3 policy discussion. It functions to integrate the ASEAN+3 markets through standardization and harmonization of regulations and market practices as well as market infrastructures relating to cross-border bond transactions.

Since its establishment, the ABMF has produced various outputs and created impacts. In 2012, the ABMF released the ASEAN+3 Bond Market Guide, the first officially recognized publication of bond market regulations and settlement procedures in ASEAN+3 economies. The market guide helped narrow information gaps and increase market transparency, which was often regarded as the biggest barrier to market entry. In 2014, to provide policy recommendations to standardize securities transaction flows in the region, ABMF published the Sub-Forum 1 (SF1) Phase 2 Report: Proposal on ASEAN+3 Multi-Currency Bond Issuance Framework (AMBIF) as a regionally standardized bond issuance framework, and the Sub-Forum 2 (SF2) Phase 2 Report: ASEAN+3 Information on Transaction Flows and Settlement Infrastructures. After the endorsement of both reports by the ASEAN+3 finance ministers in 2015, ABMF released two Phase 3 reports: Implementation of the AMBIF: ABMF SF1 Phase 3 Report, and Harmonization and Standardization of Bond Market Infrastructures in ASEAN+3: ABMF SF2 Phase 3 Report. The SF1 Phase 3 report contained the Single Submission Form (SSF) to be utilized in the markets participating in AMBIF and explained the procedures for issuing an AMBIF bond. The SF2 Phase 3 report (i) identified and agreed upon key transactional financial messages to be harmonized and standardized to facilitate cross-border bond transactions, and (ii) successfully demonstrated the readiness of the region to implement key international standards such as ISO 20022 by 2025. As a result, implementation of ISO 20022 was included as one of the strategic measures for financial integration in the ASEAN Economic Community Blueprint 2025.

ABMF meetings are held three times a year, bringing together more than 100 experts from the ministries of finance, central banks, securities market regulators, central securities depositories, securities exchanges and market operators, financial market associations as well as major financial institutions and IT vendors in the region. The forum is open to experts who are interested in bond market developments and regional financial cooperation.

The 32nd ABMF will be organized jointly by the Shenzhen Stock Exchange. The Forum plans to discuss:

- Recent development of Chinese Exchange Bond Market
- Green bond: how can we develop the ASEAN+3 market practices?
- ABMI updates

The 19th Cross-Border Settlement Infrastructure Forum will be co-organized by Asia Prime Collateral Forum. Thus, it will be an open forum to ABMF participants. The Forum plans to discuss cross-border collateral and repo in Asia.

DAY 1 – 17 October 2019

China Capital Market Institute(CCMI)
Shenzhen, People's Republic of China

ABMF Sub Forum 1 Meeting

TIME	PROGRAM
VENUE: Auditorium Hall, 2nd Floor, Buiding B, CCMI, Xili Qinyang 2nd Road, Nanshan District, Shenzhen (Building next to Building A)	
08:30 – 09:00	**Registration**
09:00 – 09:15	**Photo Session**
09:15 – 09:20	**Opening Speech** by Mr. LI Chao, Vice Chairman of China Securities Regulatory Commission
09:20 – 09:25	**Welcome Remarks** by Mr. WANG Lixin, Vice Mayor of the Shenzhen Municipal People's Government
09:25 – 09:30	**Welcome Remarks** by Mr. WANG Jianjun, President and CEO of Shenzhen Stock Exchange
09:30 – 09:35	**Welcome Remarks** by Mr. Satoru Yamadera, Principal Financial Sector Specialist, Economic Research and Regional Cooperation Department, Asian Development Bank
09:40 – 09:50	*Coffee Break*
ABMF Sub Forum 1 (SF1) Meeting	
09:50 – 09:55	**Opening Remarks** by Mr. Koji Ito, ABMF Sub Forum 1 (SF1) Chairman
China Bond Market Overview	
09:55 – 10:20	**Keynote Speech 1: The Recent Development of China's Economy** by Mr. SONG Guoqing, Professor of Economics at the National School of Development of Peking University
10:20 – 10:45	**Keynote Speech 2: Exchange Bond Market Development** by Mr. CHEN Fei, Director of Corporate Bond Supervision Department, China Securities Regulatory Commission
10:45 – 10:55	**Keynote Speech 3: Launch of China's Exchange Bond Market Guide and role of exchange in developing a bond market** by Mr. Satoru Yamadera, Principal Financial Sector Specialist, Economic Research and Regional Cooperation Department, Asian Development Bank (ADB)
10:55 – 11:30	**Panel 1: The Role of the Bond Market in supporting the Development of the Guangdong-Hong Kong-Macao Greater Bay Area** Moderator: **Mr. LIU Fuzhong**, Director of International Department, Shenzhen Stock Exchange (SZSE) Panelist: 1. **Ms. CAO Jiajia**, Deputy Division Director, Government Bonds Division, Budget Department of Ministry of Finance of China 2. **Mr. WEN Ping**, Deputy Director-General, Authority of Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone of Shenzhen

	3. **Ms. TAN Yonghui**, Director of Fixed Income Department, Shenzhen Stock Exchange 4. **Ms. SHU Chang**, Chief Asia Economist, Bloomberg
11:30 – 12:05	**Panel 2: Latest Development in the Exchange Bond Market (Factor Flow and Opening up)** Moderator: **Ms. NI Gaiqin**, Division Director, Corporate Bond Supervision Department, China Securities Regulatory Commission Panelist: 1. **Mr. ZONG Jun**, Director of R&D Department, China Central Depository & Clearing Company 2. **Mr. Satoru Yamadera**, Principal Financial Sector Specialist of Asian Development Bank 3. **Mr. WANG Jianguo**, Deputy Director, Fixed Income Center, Shanghai Stock Exchange 4. **Mr. ZHU Liyuan**, Deputy Director, Bond Business Department, China Securities Depository and Clearing Corporation Limited
12:05 – 12:10	**Wrap-up** by Mr. Satoru Yamadera, Asian Development Bank
12:10 – 13:00	*Lunch (Dining Hall B)*
Venue: A317 Conference Room, Building A, China Capital Market Institute Shenzhen, People's Republic of China	
How to develop a regional green bond market under the ABMI	
13:30 – 14:00	**Session 1: State of the Market – Recent Developments of Global Green Bond Market and its implication on Asian Markets** by Mr. Cedric Rimaud, ASEAN Program Manager, Climate Bonds Initiative
14:00 – 14:30	**Session 2: Overview of the Green Bond Market in China** by Ms. Judy Li - Partner, Climate Change & Sustainability Services, Financial Services, Ernst and Young (Beijing)
14:30 – 15:00	**Seesion 3: Green Bond Market Development in ASEAN countries** by Mr. Kosintr Puongsophol, Financial Sector Specialist, Economic Research and Regional Cooperation Department, Asian Development Bank
15:00 – 15:15	*Coffee Break*
15:15 – 16:15	**Panel 3: Experience Sharing on China Onshore Green Bond Issuance** Moderator: **Ms. Chan Ka Yi**, Head of International Business, Fixed Income Department, Shenzhen Stock Exchange Panelist: 1. **Mr. Cheng Daming**, Executive Director, China International Capital Corporation Limited 2. **Ms. Gan Luying**, Head of Sustainable Bonds, Debt Capital Markets, Asia Pacific, HSBC 3. **Mr. Zhang Han**, CEO of iGreen Bank 4. **Ms. Liu Chubai**, Head of Innovative Business, Fixed Income Department, Shenzhen Stock Exchange

16:15 – 16:25	**Session 4: Outline of the New Technical Assistance to Create Necessary Ecosystems for Green Bond Market Development in ASEAN+3** by Mr. Kosintr Puongsophol, Financial Sector Specialist, Economic Research and Regional Cooperation Department, Asian Development Bank
16:25 – 16:30	**Closing Remarks by** Mr. Satoru Yamadera, ADB and Mr. Koji Ito, ABMF SF1 Chairman
Meet the market in PRC **Chinese market players are invited to join**	
16:35 – 17:45	**Session 5: What is ABMI, ABMF, and AMBIF?** by Mr. Satoru Yamadera, ADB - ADB will explain various initiatives under the Asian Bond Markets Initiatives. In addition, ADB will explain how these initiatives will be linked with the Chinese bond market development such as Panda bond, local currency funding by the Chinese corporates, and cross-border collateral. - Q&A
18:00 – 19:00	***Welcome dinner hosted by SZSE*** *(Dining B Hall, CCMI)*

DAY 2 – 18 October 2019

Venue: A317 Conference Room, China Capital Market Institute
Shenzhen, People's Republic of China

ABMF Sub Forum 2 Meeting - (Morning)	
TIME	**PROGRAM**
08:30 – 09:00	**Registration**
09:00 – 09:05	**Opening Remarks by** Mr. Seung-Kwon Lee, ABMF Sub Forum 2 (SF2) Chairman
Update of ABMI	
09:05 – 09:30	**Session 6: Update of Bond Market Guide Drafting and Recent Developments in ASEAN+3 Bond Markets** by ADB Secretariat • Mr. Matthias Schidmt, Lead Bond Business and Financial Operation Specialist, ADB Consultant (ABMF SF1) • Prof. Shigehito Inukai, ADB Consultant for ABMF SF1
09:30 – 10:00	**Session 7: Recent ASEAN+3 market developments** by Ms. Shu Tian, Economist (AsianBondsOnline), Asian Development Bank
10:00 – 10:30	**Session 8: Update by Credit Guarantee and Investment Facility activities** by Mr. Dong Woo Rhee, Chief Financial Officer, Credit Guarantee & Investment Facility (CGIF)
10:30 – 10:45	*Coffee break*
10:45 – 11:55	**Session 9: Account Structure and KYC Process** by ADB and ABMF International expert • Mr. Satoru Yamadera, Principal Financial Sector Specialist, ADB • Mr. Shinya Kim, Manager, NTTDATA Systems Technologies Inc.
11:55 – 12:00	**Wrap-up by** Mr. Satoru Yamadera, ADB and Mr. Seung-Kwon Lee, ABMF SF2 Chairman
12:00 – 13:00	*Lunch (Dining Hall B)*

(Afternoon) 19th Cross-Border Settlement Infrastructure Forum (CSIF) Venue: A317 Conference Room, China Capital Market Institute, Shenzhen, PRC -open session together with ABMF members	
13:00 – 13:05	**Opening Remarks** by Mr. Seung-Kwon Lee CSIF Vice Chairman
Cross-Border Collateral and Repo in Asia	
13:05 – 13:30	**Building a culture of repo collateral for bond market development** by Mr. Josh Galper, Managing Principal, Finadium LLC – Asian Prime Collateral Forum (APCF)
13:30 – 14:45	**Possible models in Asia** by Mr. Satoru Yamadera, Principal Financial Sector Specialist, Economic Research and Regional Cooperation Department, Asian Development Bank (15 min)

<table>
<tr><td></td><td>Cross-border tri-party repo in Asia: Impediments and challenges
• Clearstream Banking S. A. by Mr. Davin Cheung, APAC Head, Banking, Funding & Financing (15 min)
• Euroclear Bank by Mr. Danny Missotten, Deputy Head of Global Capital Markets & Funds, Hong Kong Branch (15 min)
• JP Morgan by Mr. O’Delle Fitzromeo Burke, Head of Collateral Services – APAC, Collateral Services, Securities Services (15 min)
• China Central Depository & Clearing Co., LTD. (CCDC) by Mr. Fei Tao, Business Manager, Collateral Management Center, Shanghai HQ (15 min)
- Current market transactions
- Most observed currencies and securities</td></tr>
<tr><td>14:45 – 15:00</td><td>Coffee Break</td></tr>
<tr><td>15:00 – 15:20</td><td>Central Bank Collateral Frameworks for ABMI by Dr. Gongpil Choi, Director of Asian Prime Collateral Forum (APCF) and Korea Institute of Finance (KIF) Center for Finance and Technology</td></tr>
<tr><td>15:20 – 16:35</td><td>How Asia can increase more cross-border collateral and Repo transactions?
Panel discussion
• Mr. Davin Cheung, APAC Head, Banking, Funding & Financing, Clearstream Banking S.A.
• Mr. Danny Missotten, Deputy Head of Global Capital Markets & Funds, Euroclear Bank (Hong Kong Branch)
• Mr. O’Delle Fitzromeo Burke, Head of Collateral Services – APAC, Collateral Services, Securities Services, JP Morgan
• Mr. Yulu Pu, Senior Manager, ChinaBond Collateral Management Center, Shanghai HQ, China Central Depository & Clearing Co., LTD. (CCDC)
• Mr. Joon Hwan Im, Senior Research Fellow, Korea Insurance Research Institute (KIRI) - Asian Prime Collateral Forum (APCF)
Moderator: Mr. Satoru Yamadera, Principal Financial Sector Specialist, Economic Research and Regional Cooperation Department, Asian Development Bank</td></tr>
<tr><td>16:35 – 16:55</td><td>Closing Remarks by Prof. Kim Kyung-Soo, Former President of the Bank of Korea research institute and ex-chairman of the Korean Economic Association</td></tr>
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Update on ASEAN+3 Bond Market Guides and AMBIF Implementation Guidelines

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Shigehito Inukai, ADB Consultant and CMAA
Matthias Schmidt, ADB Consultant

32nd ABMF Meeting, Shenzhen, People's Republic of China
Day 2, 18 October 2019

Points to Cover

①Announcing the Publication of the Exchange Bond Market BMG

②Status of ASEAN+3 Bond Market Guides

③The China Inter-Bank Bond Market (CIBM) BMG

④New Update Approach for Bond Market Guides

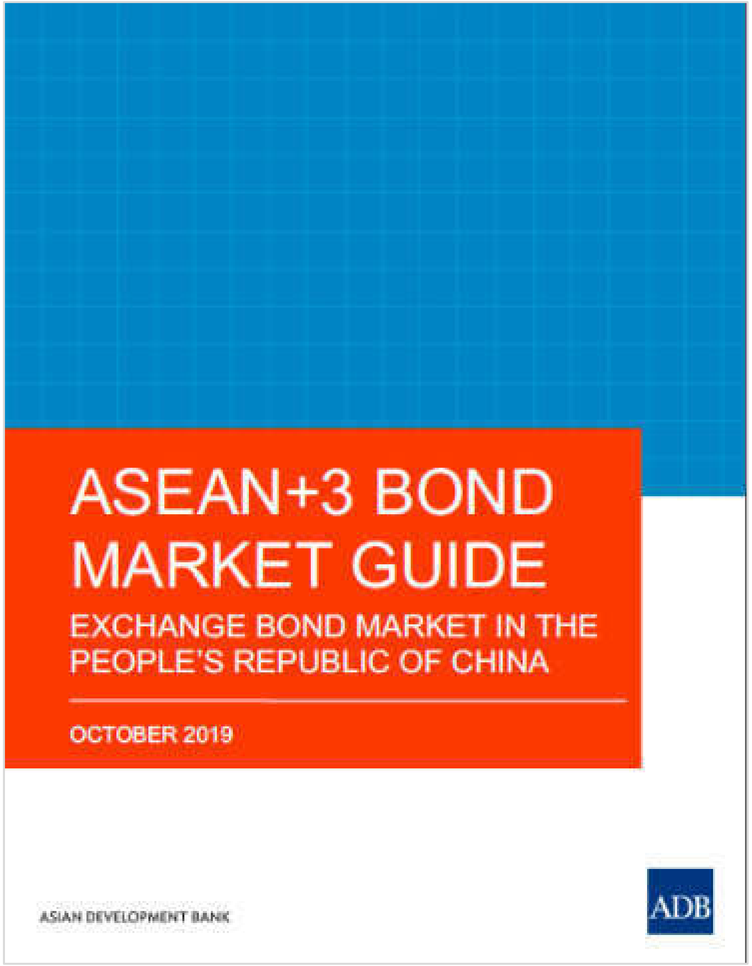
⑤Next Steps for ASEAN+ Bond Market Guides

⑥Update on AMBIF Implementation Guidelines

⑦Next Steps for AMBIF Implementation Guidelines

⑧Q&A

Announcing the Publication of the Exchange Bond Market BMG



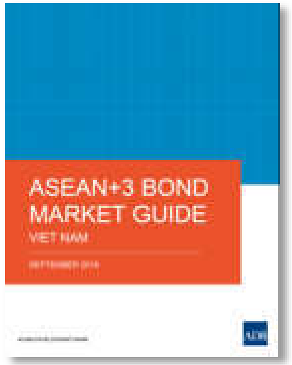
181 pages

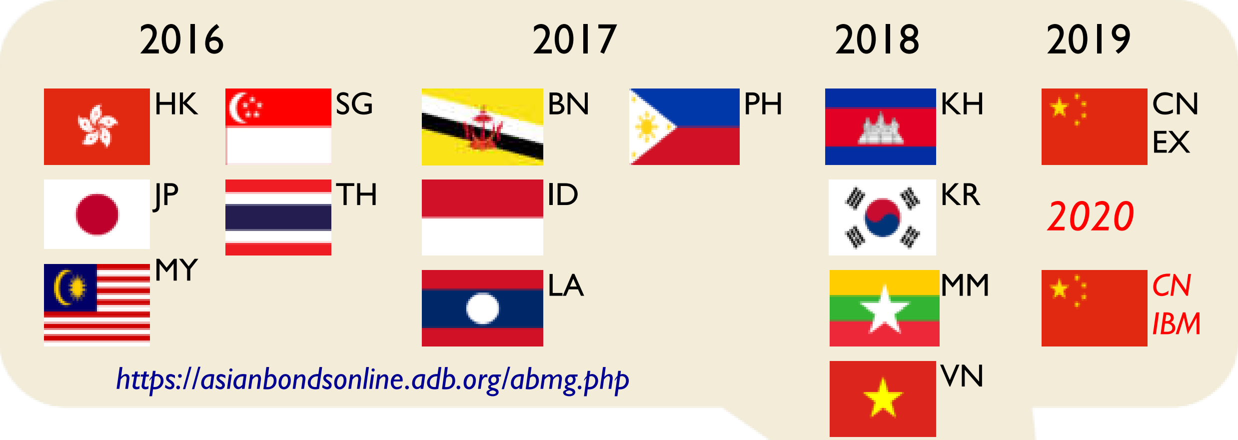
Available from 17 October 2019 on www.adb.org and www.asianbondsonline.adb.org

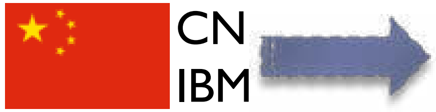
Thanks for the patience, efforts and strong support from the CSRC, SSE, SZSE, CSDC, SAC and other stakeholders in the exchange bond market!

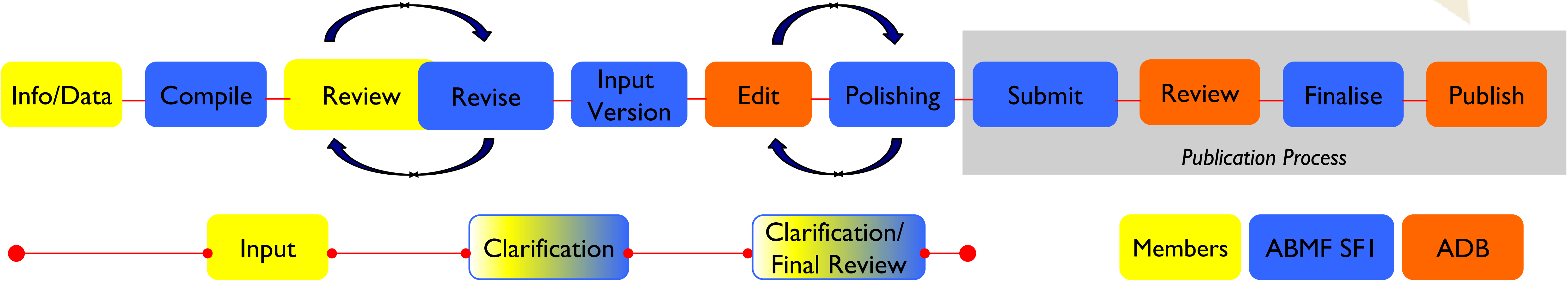
ADB Secretariat

Status of ASEAN+3 Bond Market Guides (as of 17 October 2019)









[Note: Flags courtesy of Wikipedia]

The China Inter-Bank Bond Market (CIBM) BMG

- Compilation and clarifications nearing completion
- Discussions in Beijing and Shanghai this week will help conclude topics

- Distinct from exchange bond market, limited re-usability of information
- Specific terminology and need to translate, then interpret regulations
- Rapid development and volume of information drive multiple revisions

- Presently at 209 pages in MS Word, likely to be largest BMG
- Next steps: final input version completion, then first round edit
- Target for publication in early 2020

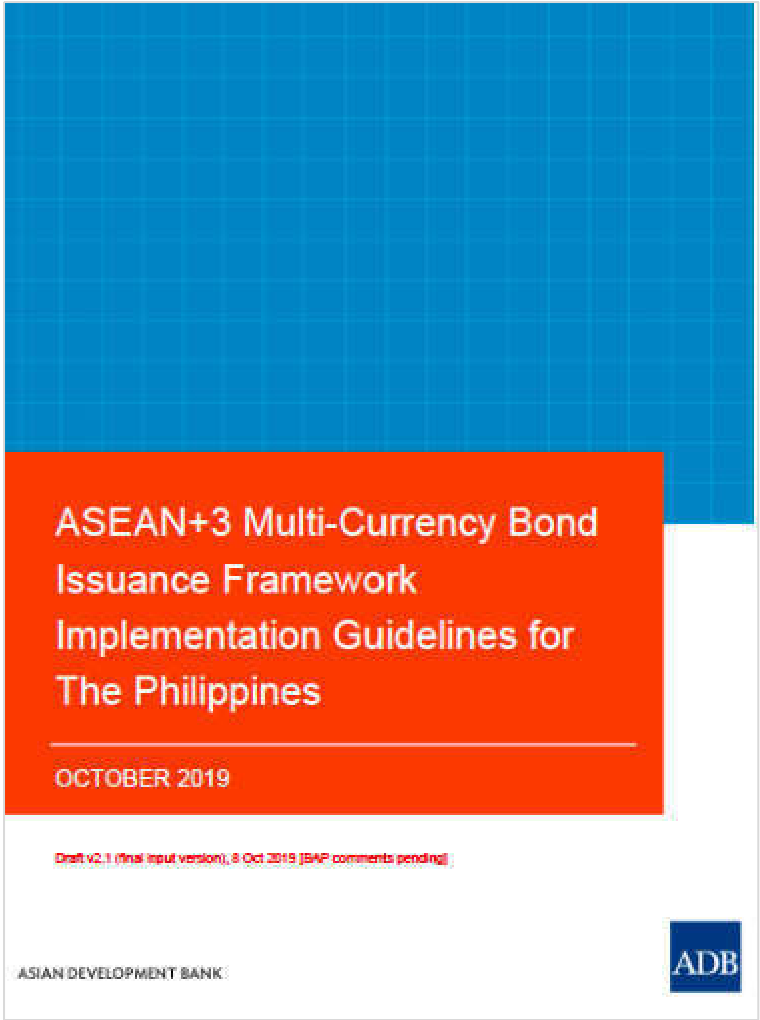
New Update Approach for ASEAN+3 Bond Market Guides

- New, two-pronged approach, for practical reasons
- **Supplementary Notes to Bond Market Guides**
  - In case of specific, single or few updates and/or where significant change in the market is pending or likely to occur in 12-18 months (e.g.)
  - Published as separate, simpler document, posted on AsianBondsOnline
  - ABO will create dedicated market information section
  - Example: Thailand, PP-AI to PP-II, tax change; framework revamp in 2020
- **Full updates of Bond Market Guides**
  - Where market info/data outdated or developments require update
  - Target: 2016 publications (Hong Kong, Japan), Philippines in 2020
  - ➢ Please approach ADB Secretariat for market specific drivers/schedule

Next Steps for ASEAN+3 Bond Market Guides (BMG)

- **Research on, inclusion of additional relevant topics (in updates)**
  - Green bonds, sustainability bonds, infrastructure bonds (incl. criteria)
  - Dispute resolution, arbitration; market practices, (trading) conventions
  - KYC, onboarding, tax processing, payment system information
  - Other suggestions welcome
- **Update of or Integration with SF2 Information (was SF2 Report)**
  - Publish as updated SF2 report, or integrate with BMG?
  - Some overlap in information exists; easier maintenance as single BMG?
- **Two-way synchronization with AMBIF Implementation Guidelines**
- **Integration with *AsianBondsOnline***

Update on AMBIF Implementation Guidelines



New: publication as standalone documents

- Drivers include
  - Multiple issuance per market begin to shape practices
  - CGIF stipulates AMBIF issuances, use of SSF
- Formal ADB publication, based on BMG style
- Posted on AsianBondsOnline
- Philippines ready for edit, then publication process, by end 2019

Next Steps for AMBIF Implementation Guidelines

- Publication of Philippine Implementation Guidelines
- Updating Thailand in line with BMG supplement information, when possible
- Review, potential updating of Singapore following AMBIF issuances

- Cambodia: new Prakas on Offers to Qualified Investors effective soon
- PR China: initial discussions on AMBIF eligible environment in CIBM, EX
- Indonesia: new professional investor regulations to saturate market first
- Malaysia: need to re-affirm AMBIF Elements, since processes have evolved

- Continuing discussions with (other) market stakeholders
- SSF regularly reviewed/revised, incorporated into Impl GLs by reference
- Consideration how to reflect new practices, e.g. electronic submission

Feedback & Thank You

We welcome any questions or feedback, even if today there may not be enough time.

Thank you in advance!

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Matthias Schmidt
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ASEAN+3 BOND MARKET FORUM

Economic and Bond Market Developments in Emerging East Asia

AsianBondsOnline (ABO) Website Updates

Donghyun Park
Shu Tian

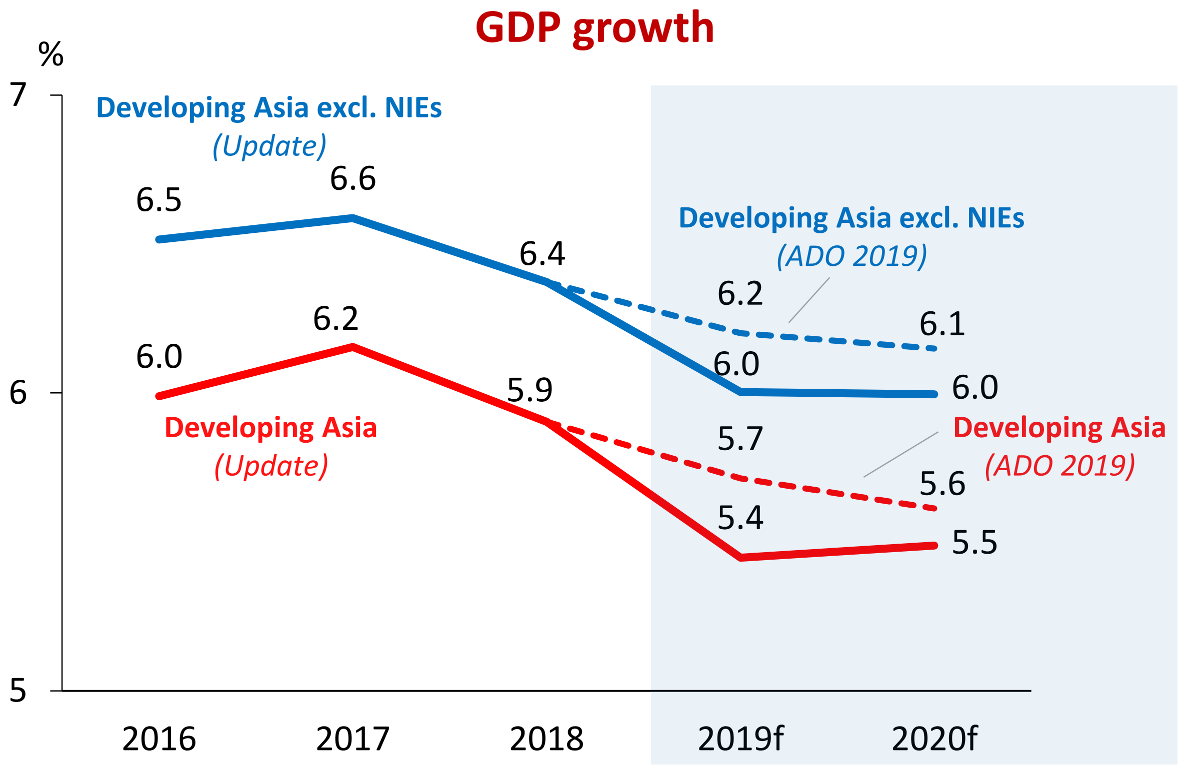
Asian Development Bank

Asia's Economic Outlook

Key Messages

- Developing Asia's growth forecasts are revised down, to 5.4% in 2019 and 5.5% in 2020
- Signs of moderating growth are already evident in the PRC and India, and in many other economies in the region
- Inflation to pick up slightly due to food prices, but remains muted at 2.7% in 2019 and 2020
- Downside risks to the outlook have increased
- The US-PRC trade tensions remain the primary risk to growth and financial stability.

Growth prospects in developing Asia dim …



NIEs = newly industrialized economies of Hong Kong, China; Republic of Korea; Singapore; and Taipei,China

Source: *Asian Development Outlook 2019 Update* database.

The revisions are due to:

- **Slowing global activity and trade**

GDP growth (%)	2018	2019		2020	
	Actual	ADO	*Update*	ADO	*Update*
Advanced economies[a]	**2.2**	**1.9**	**1.7** ↓	**1.6**	**1.4** ↓
United States	2.9	2.4	2.3 ↓	1.9	1.9
Euro area	1.9	1.5	1.0 ↓	1.5	1.0 ↓
Japan	0.8	0.8	1.2 ↑	0.6	0.5 ↓

- **Re-escalation of the US-PRC trade conflict**
- **Sharp contraction in global electronics cycle**

Growth projections are revised down for developing Asia's largest and most open subregions.

	2019 ADO	2019 Update	2020 ADO	2020 Update
East Asia	**5.7**	**5.5** ↓	**5.5**	**5.4** ↓
China, People's Rep. of	6.3	6.2 ↓	6.1	6.0 ↓
Hong Kong, China	2.5	0.3 ↓	2.5	1.5 ↓
Korea, Rep. of	2.5	2.1 ↓	2.5	2.4 ↓
Taipei,China	2.2	2.2	2.0	2.0
Southeast Asia	**4.9**	**4.5** ↓	**5.0**	**4.7** ↓
Indonesia	5.2	5.1 ↓	5.3	5.2 ↓
Malaysia	4.5	4.5	4.7	4.7
Philippines	6.4	6.0 ↓	6.4	6.2 ↓
Singapore	2.6	0.7 ↓	2.6	1.4 ↓
Thailand	3.9	3.0 ↓	3.7	3.2 ↓
Viet Nam	6.8	6.8	6.7	6.7
Developing Asia	**5.7**	**5.4** ↓	**5.6**	**5.5** ↓

	2019 ADO	2019 Update	2020 ADO	2020 Update
South Asia	**6.8**	**6.2** ↓	**6.9**	**6.7** ↓
Bangladesh	8.0	8.1 ↑	8.0	8.0
India	7.2	6.5 ↓	7.3	7.2 ↓
Pakistan	3.9	3.3 ↓	3.6	2.8 ↓
Central Asia	**4.2**	**4.4** ↑	**4.2**	**4.3** ↑
Azerbaijan	2.5	2.6 ↑	2.7	2.4 ↓
Kazakhstan	3.5	3.7 ↑	3.3	3.4 ↑
The Pacific	**3.5**	**4.2** ↑	**3.2**	**2.6** ↓
Fiji	3.2	2.9 ↓	3.5	3.2 ↓
Papua New Guinea	3.7	4.8 ↑	3.1	2.1 ↓
Excluding NIEs	**6.2**	**6.0** ↓	**6.1**	**6.0** ↓

Notes: ↑ Upgraded forecast; ↓ Downgraded forecast; and no symbol = unchanged.

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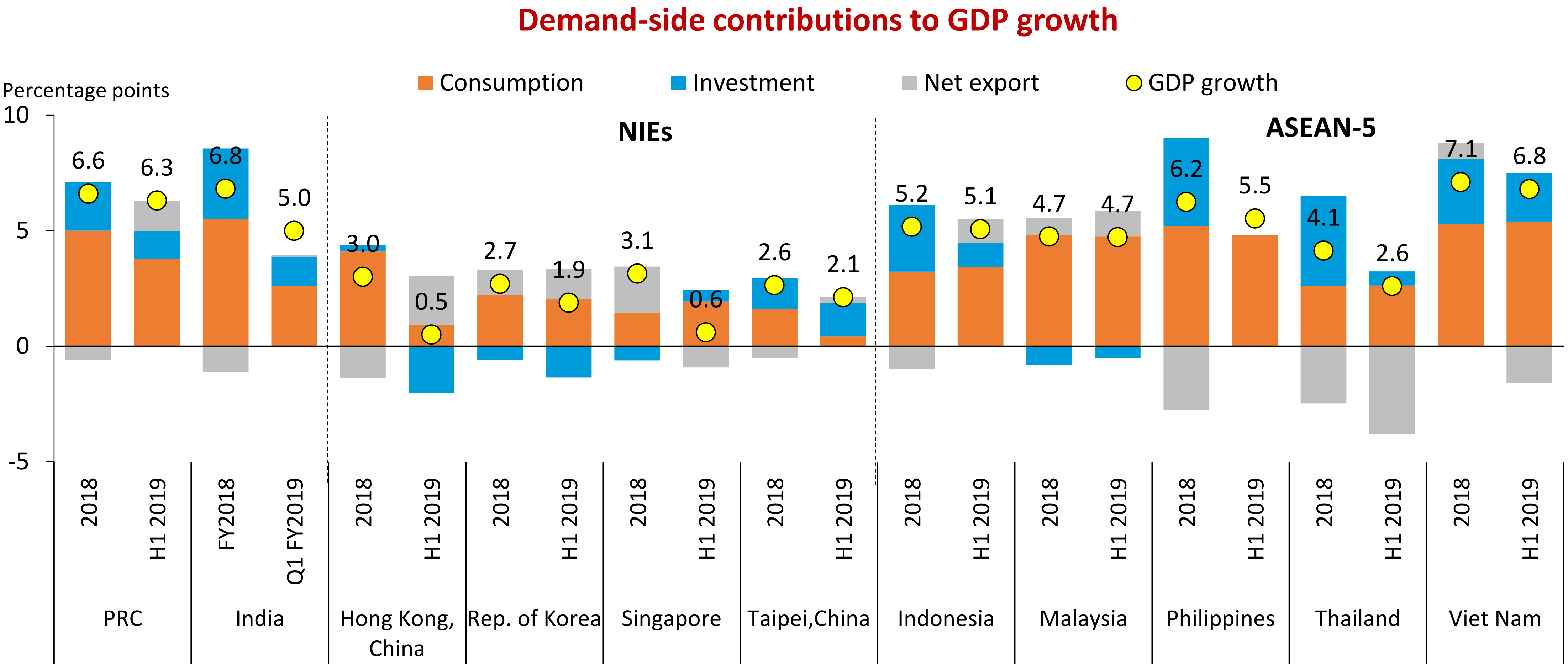
ADB

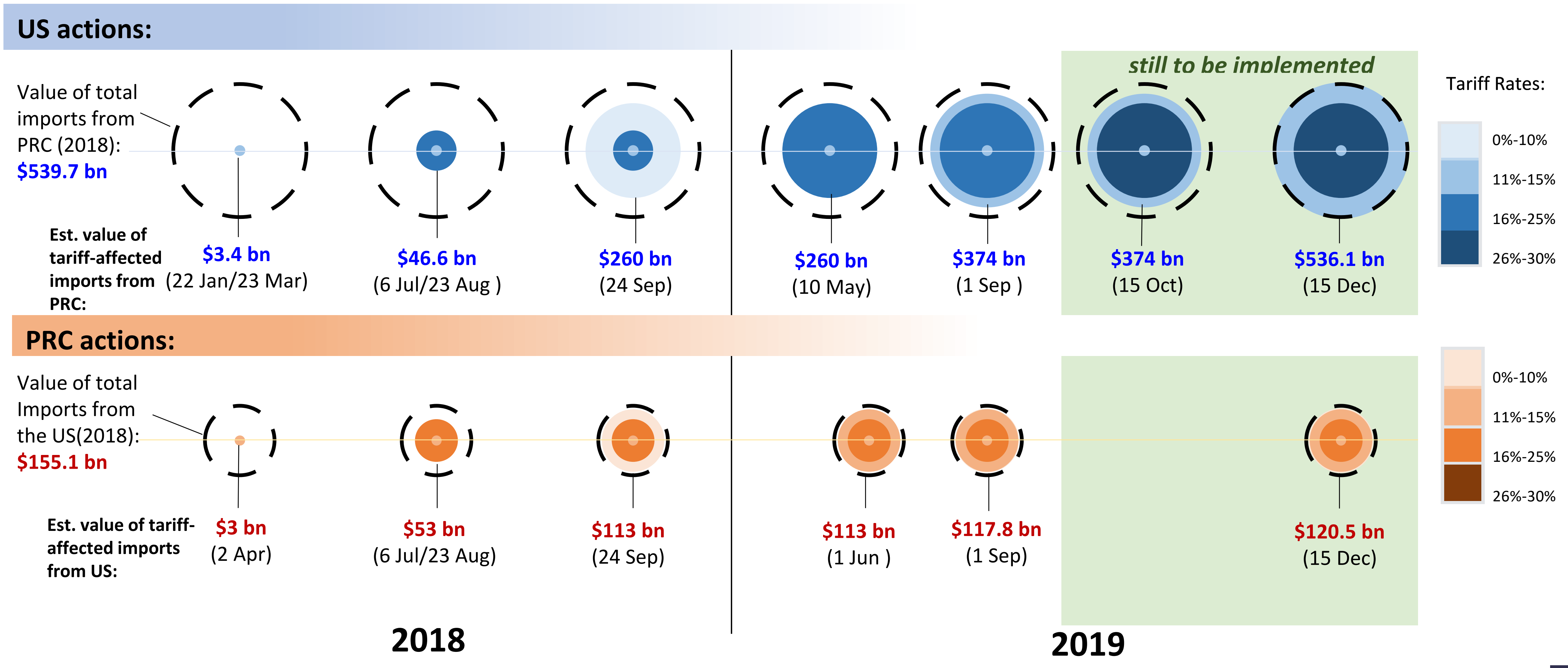
... with weakening domestic demand.



H = half; NIE = newly industrialized economies; PRC = People's Republic of China.
Note: For India, data is for the first quarter (April-June) of the corresponding fiscal year.
Sources: Haver analytics (accessed 2 September 2019); ADB estimates.

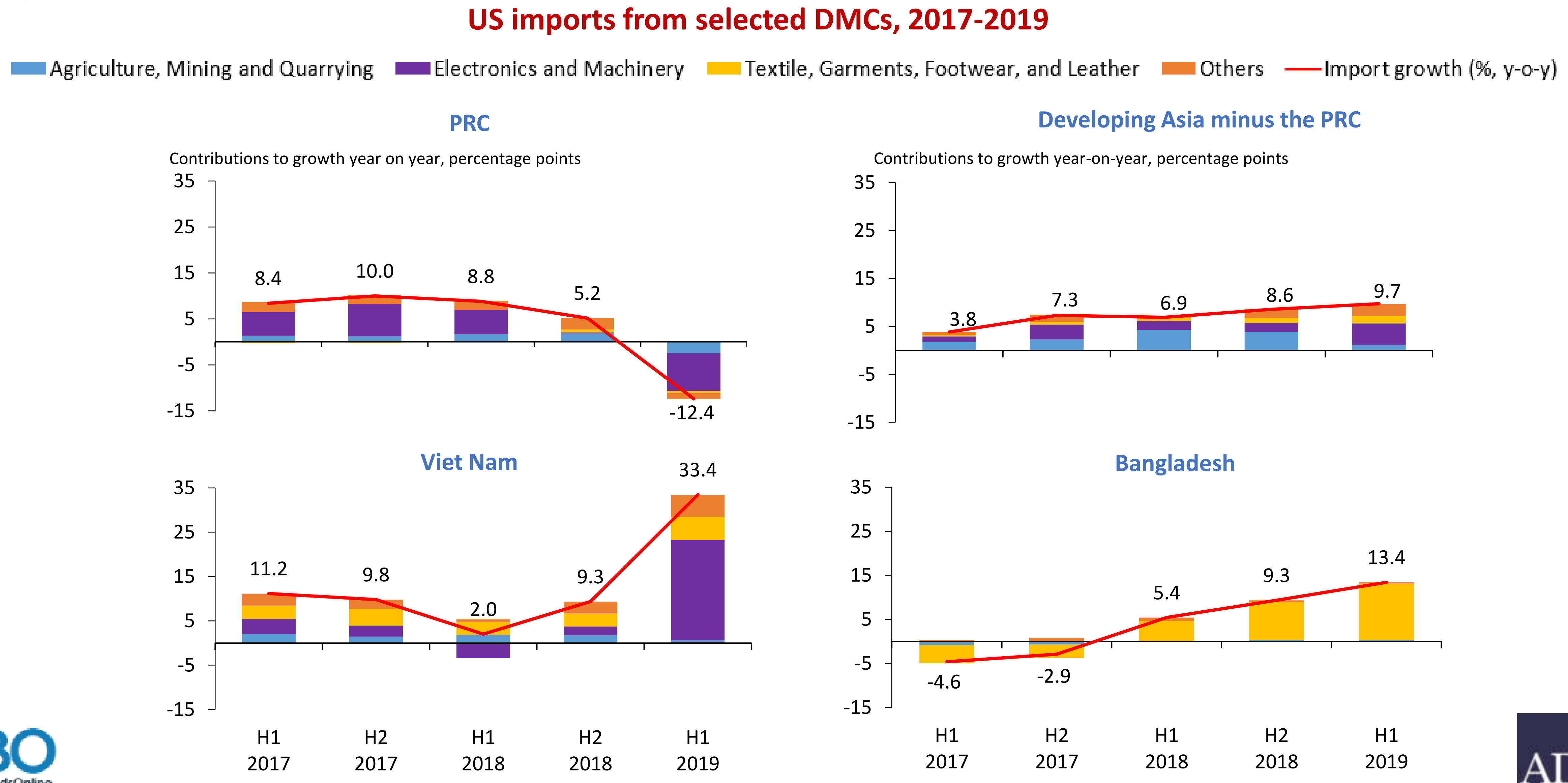
Escalating US-PRC trade tensions

Chronology of US-PRC trade conflict, 2018-2019



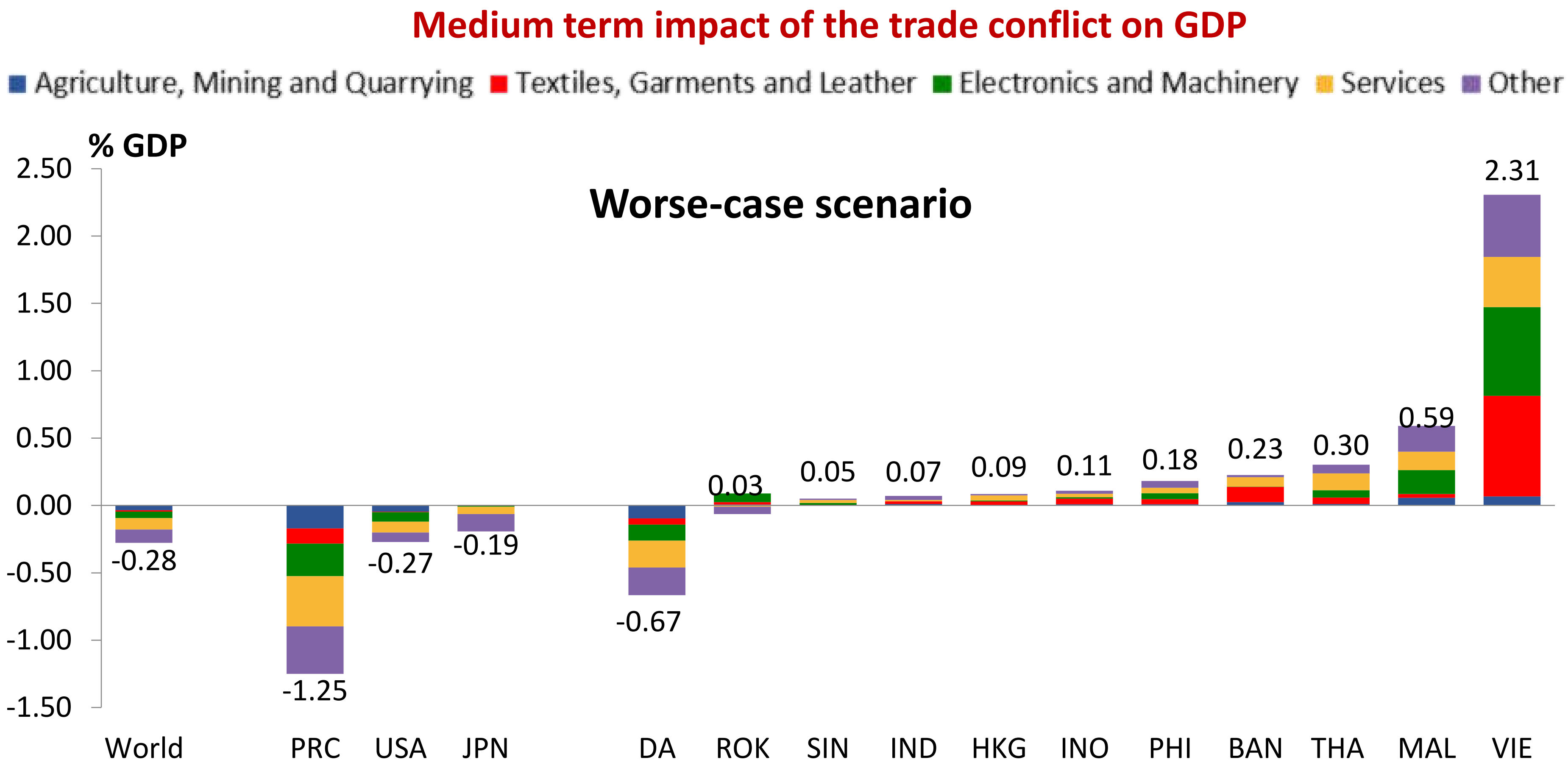
Notes: *Bubbles with broken lines* (---) show the value of all imports in 2018. *Shaded bubbles* show the portion affected by tariffs, and *shade darkness* indicates tariff intensity. The months refer to when the tariffs were implemented.
Source: ADB staff estimates.

Trade redirection is already evident in H1 2019 data…



Source: CEIC Company (accessed 30 August 2019).

… and will continue if the trade conflict persists or escalates.



Note: BAN = Bangladesh; PRC = People's Republic of China; DA = developing Asia; HKG = Hong Kong, China; INO = Indonesia; IND = India; JPN= Japan; ROK = the Republic of Korea; MAL = Malaysia; PHI = the Philippines; SIN = Singapore; THA = Thailand; USA = United States of America; VIE = Viet Nam. Current scenario includes all tariffs implemented as of September 1, 2019. Worse-case scenario includes bilateral escalation (30% tariffs on all US-PRC merchandise trade) and trade war in autos and auto parts.
Source: ADB estimates.

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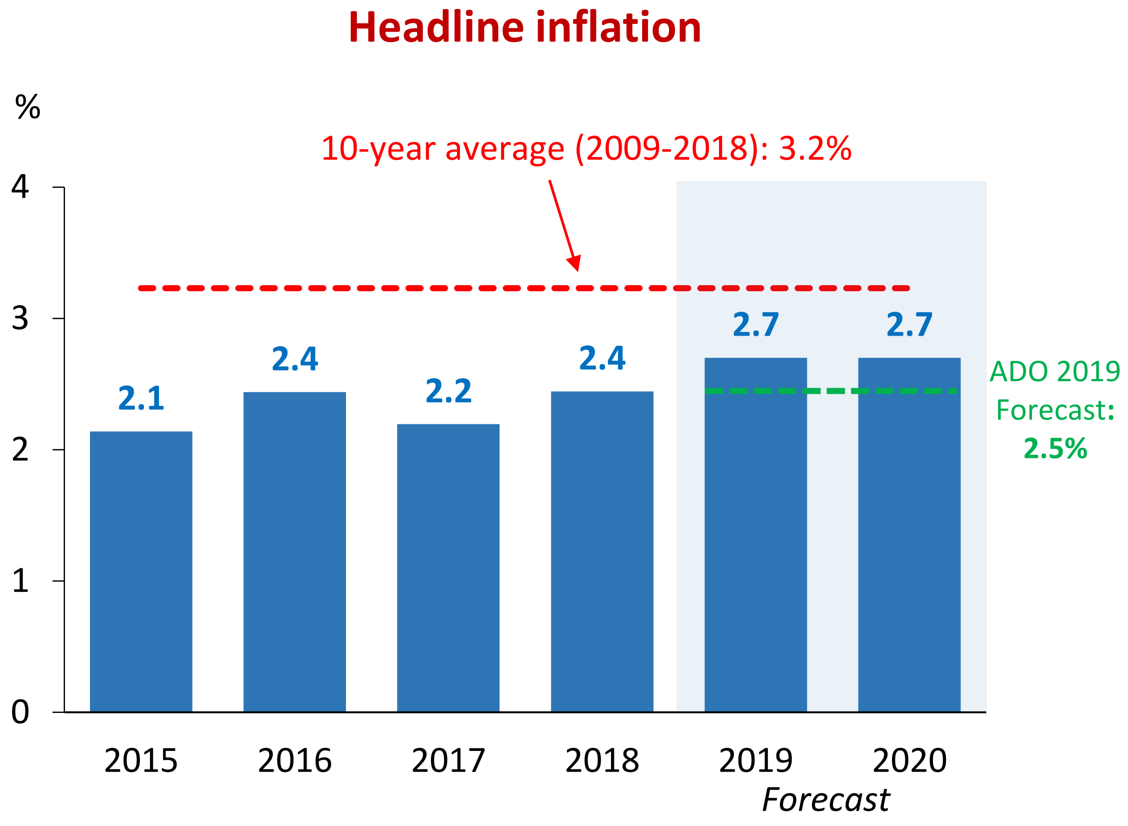
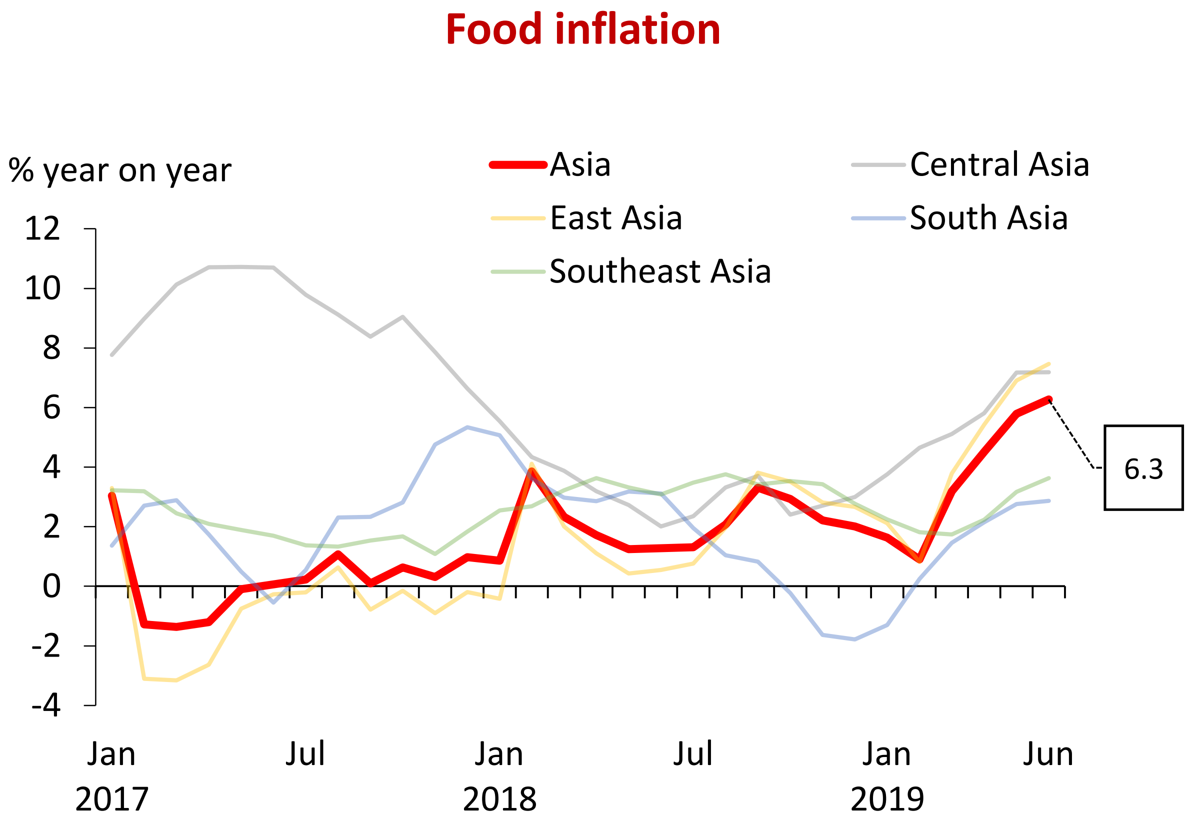
Regional inflation is picking up slightly, but remains benign



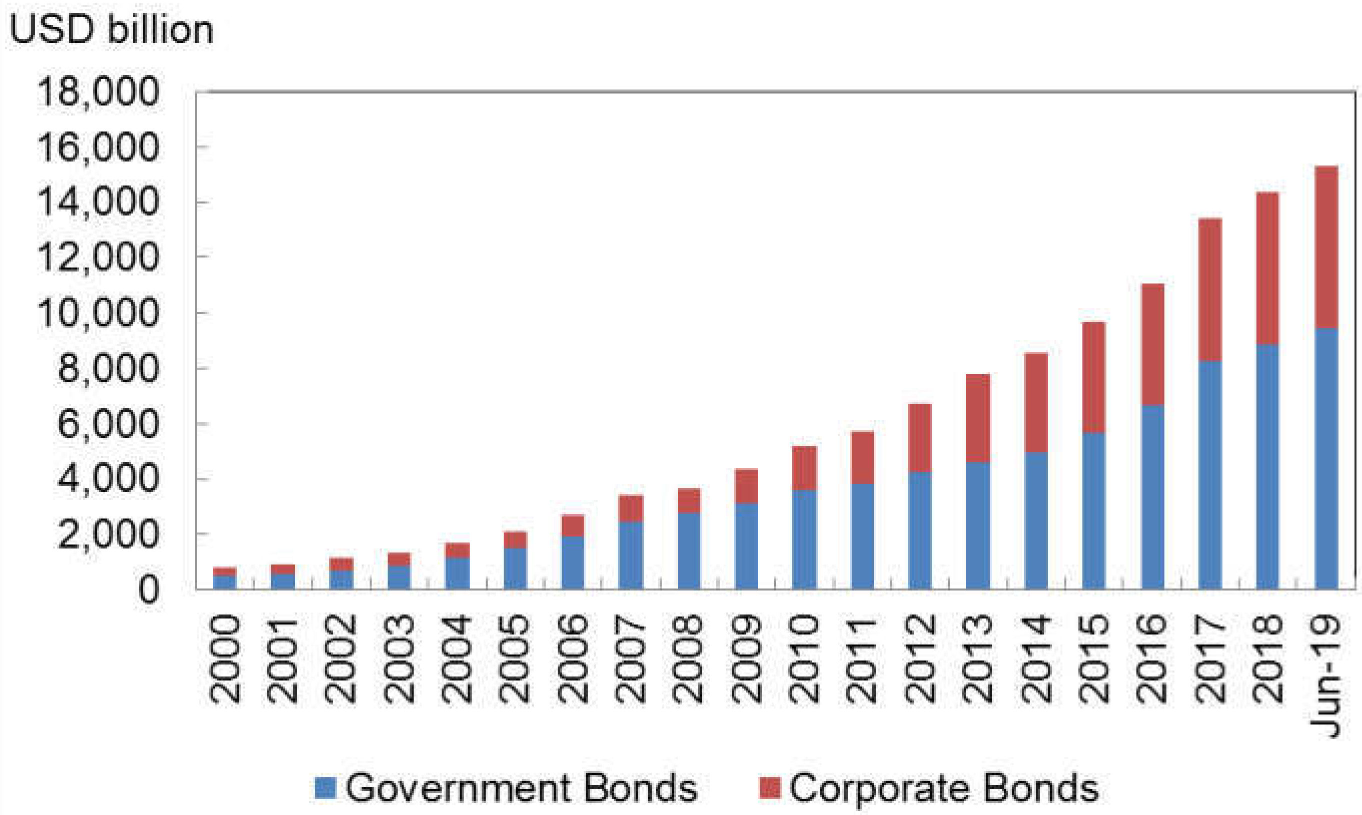


Sources: Haver analytics; CEIC data company (both accessed 5 September 2019); ADB estimates; *Asian Development Outlook* database.

Bond Market Developments in Emerging East Asia

Emerging East Asia's LCY bond market expanded to USD15.3 trillion at the end of June

Size of Emerging East Asia's LCY Bond Market



Note: Emerging East Asia comprises the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam.
Source: *AsianBondsOnline.*

- Government bonds continued to account for the majority of emerging East Asia's total bond stock, representing a 61.8% share.
- Emerging East Asia's share of LCY bonds outstanding to GDP rose to 82.7% at the end of June.
- Aggregate LCY bond issuance in the region reached USD1.6 trillion in Q2 2019 amid a recovery in corporate bond issuance and modest growth in government bonds.

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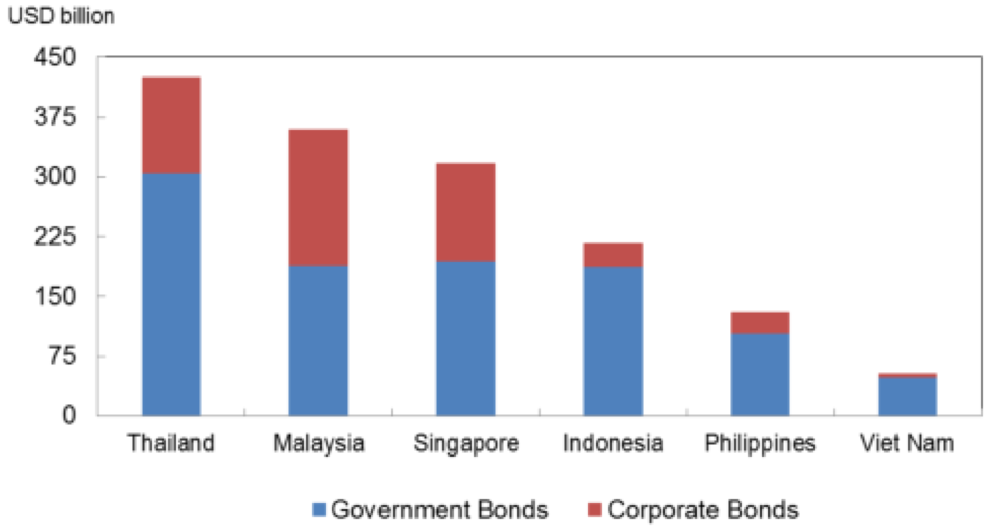
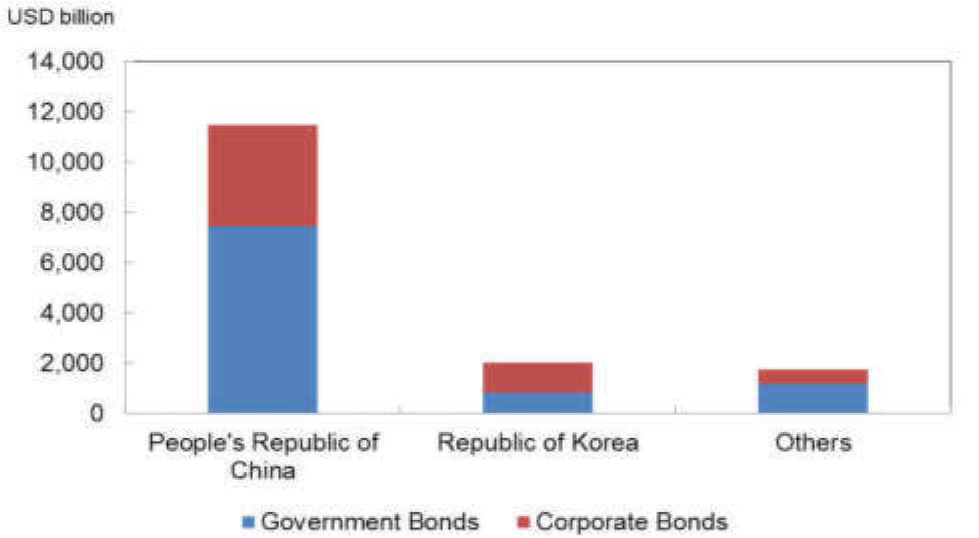
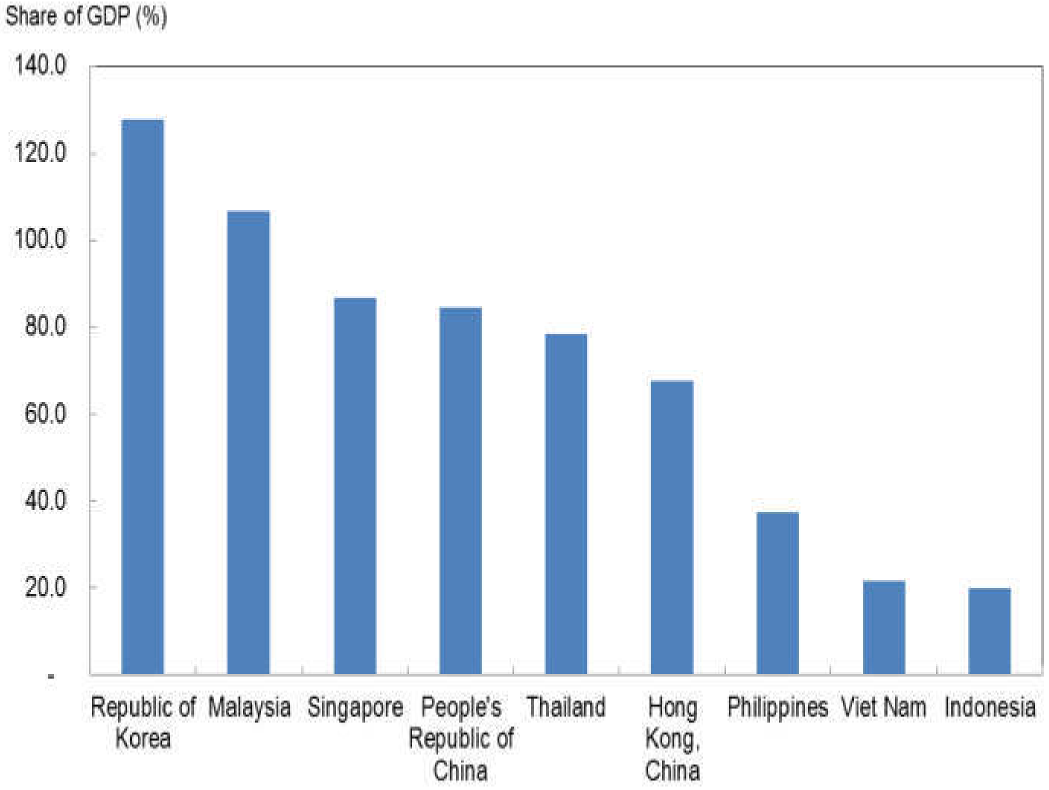
Regional Bond Market Structure



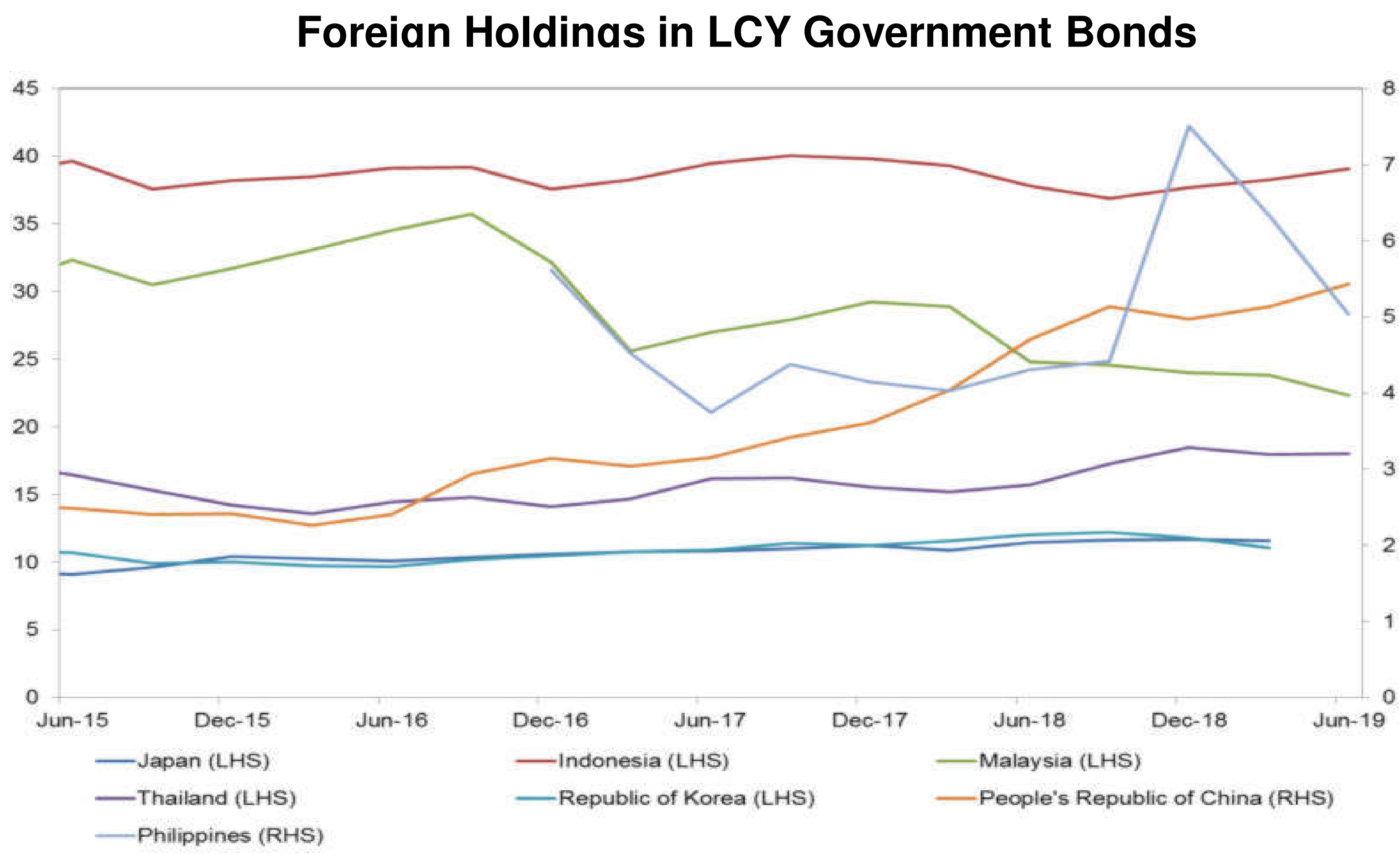


LCY Bonds Outstanding as a Share of GDP



Source: *AsianBondsOnline.*

Foreign holdings in LCY government bonds remained stable



LHS = left-hand side, RHS = right-hand side.
Note: Data as of end-June 2019; except for Japan and the Republic of Korea (end-March 2019).
Source: AsianBondsOnline.

LCY bond yields trend down in region

- Global economic growth moderated and major central banks are shifting towards a more dovish stance
  - Fed cut rate by 75 bps since Jan. The ECB on 12 September cut its deposit facility rate by 10 bps and announced the resumption of its QE program. The BOJ said it is open to additional QE. Regional central banks lowered policy rates.
  - Local currency government bond yields fell in most markets in emerging East Asia

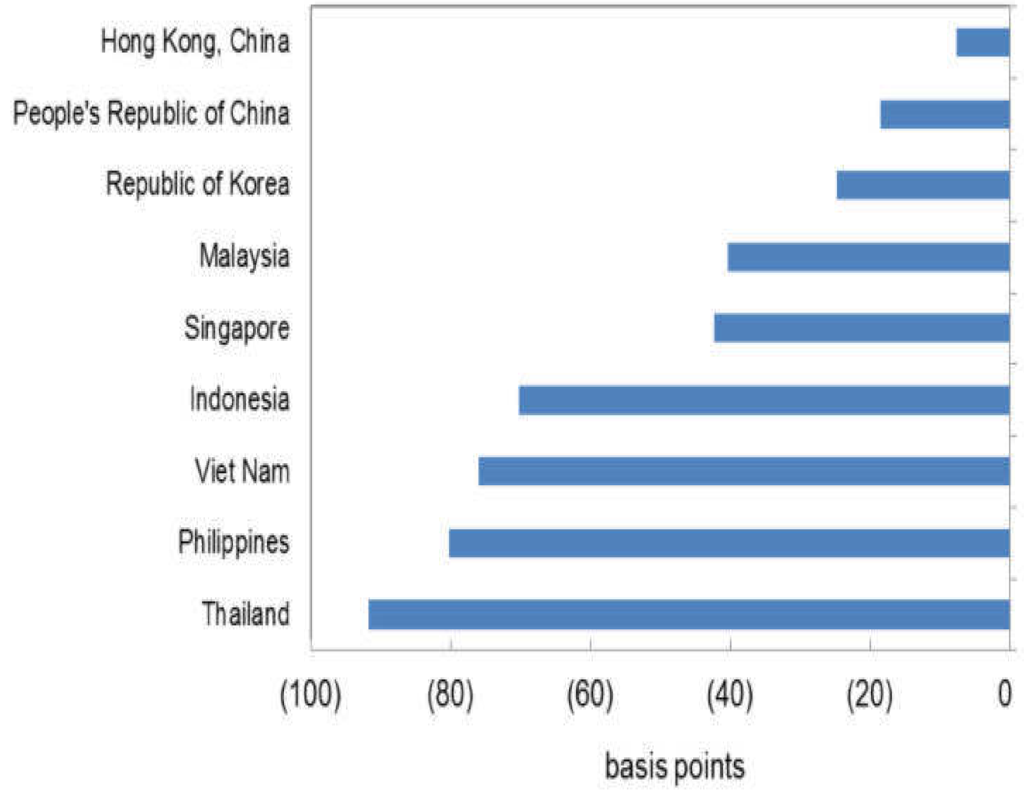
Economies	Monthly Changes in Policy Rates									Policy Rate (as of 30 Sep 2019)
	Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	
People's Rep. of China										4.35
Hong Kong, China								-0.25	-0.25	2.25
India		-0.25		-0.25		-0.25		-0.35		5.40
Indonesia							-0.25	-0.25	-0.25	5.25
Japan										-0.10
Rep. of Korea							-0.25			1.50
Malaysia					-0.25					3.00
Philippines					-0.25			-0.25	-0.25	4.00
Thailand								-0.25		1.50
Viet Nam									-0.25	6.00

Note: Figures in percent.
Source: Various central bank websites.

Looming uncertainty sours investors' sentiment

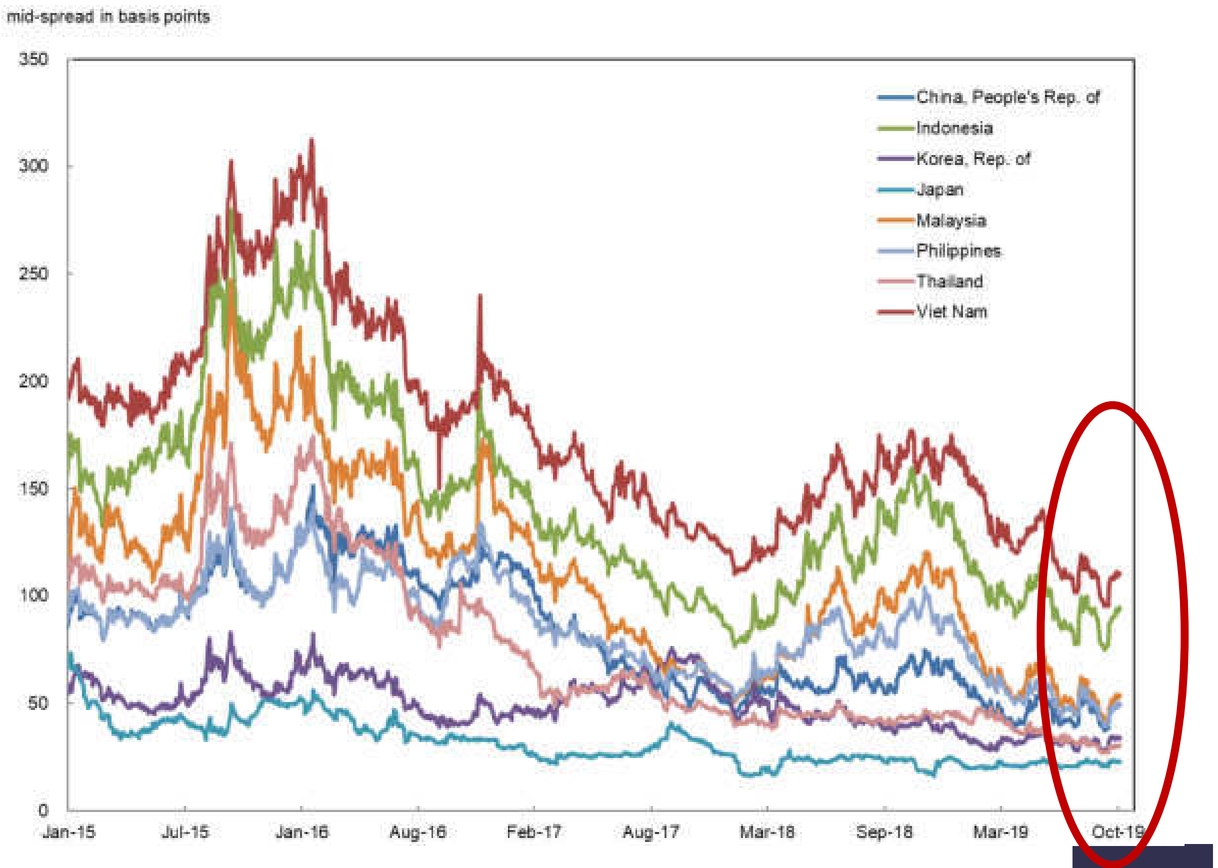
Bond yield fell and CDS spread rose

Changes in 10-year LCY Government Bond Yields



Note. Data reflect changes between 1 June and 8 October 2019.
Source: *AsianBondsOnline* calculations based on Bloomberg LP data.

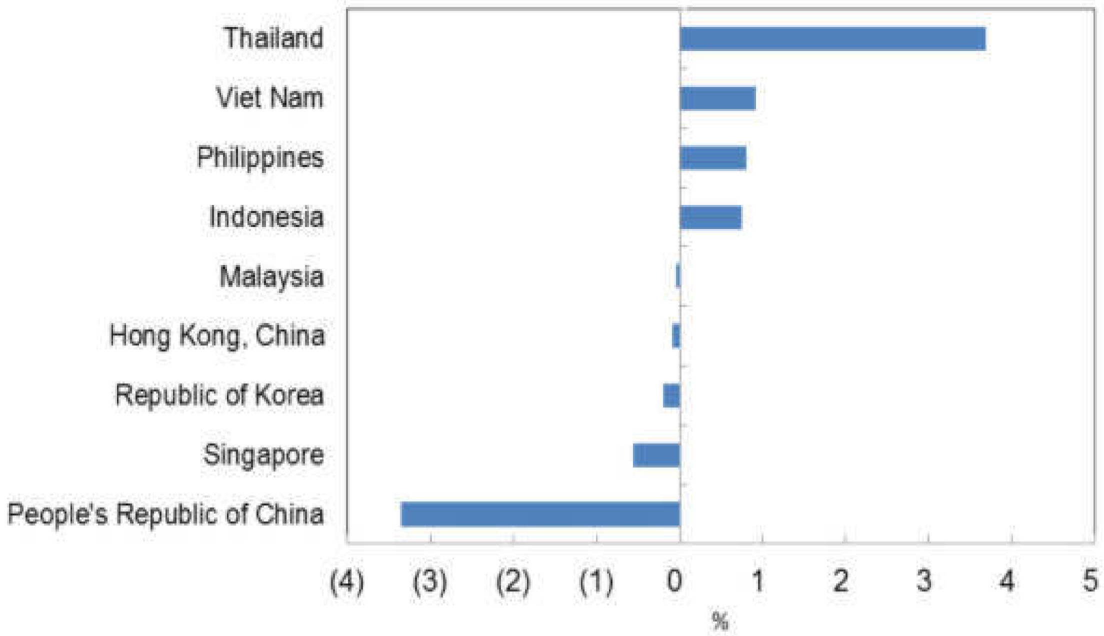
Credit Default Swap Spreads (Senior 5-year)



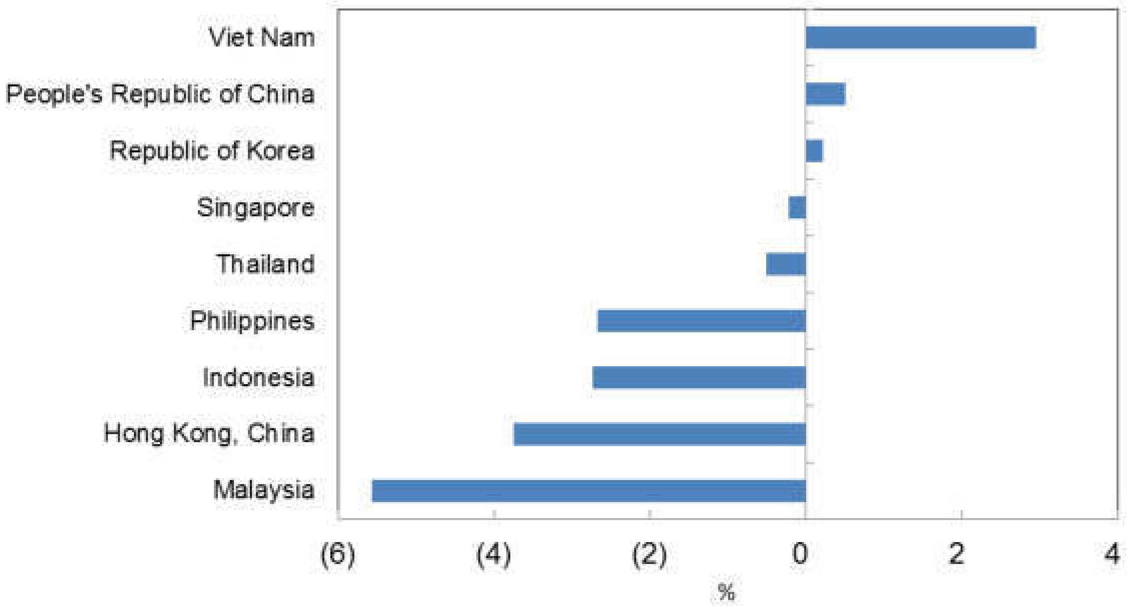
Note. Data as of 8 October 2019.
Source: Asia Bond Monitor September 2019 .

Currencies are mixed, stock markets retreat

Changes in FX Rates (%)



Changes in Equity Indexes (%)



Note. Data reflect changes between 1 June and 8 October 2019 .
Source: Asia Bond Monitor September 2019.

Downside risks continue to weigh on the region

- Persisting trade tensions between the US and the PRC
- Economic slowdown in the PRC.
- Ongoing regional trade conflicts.

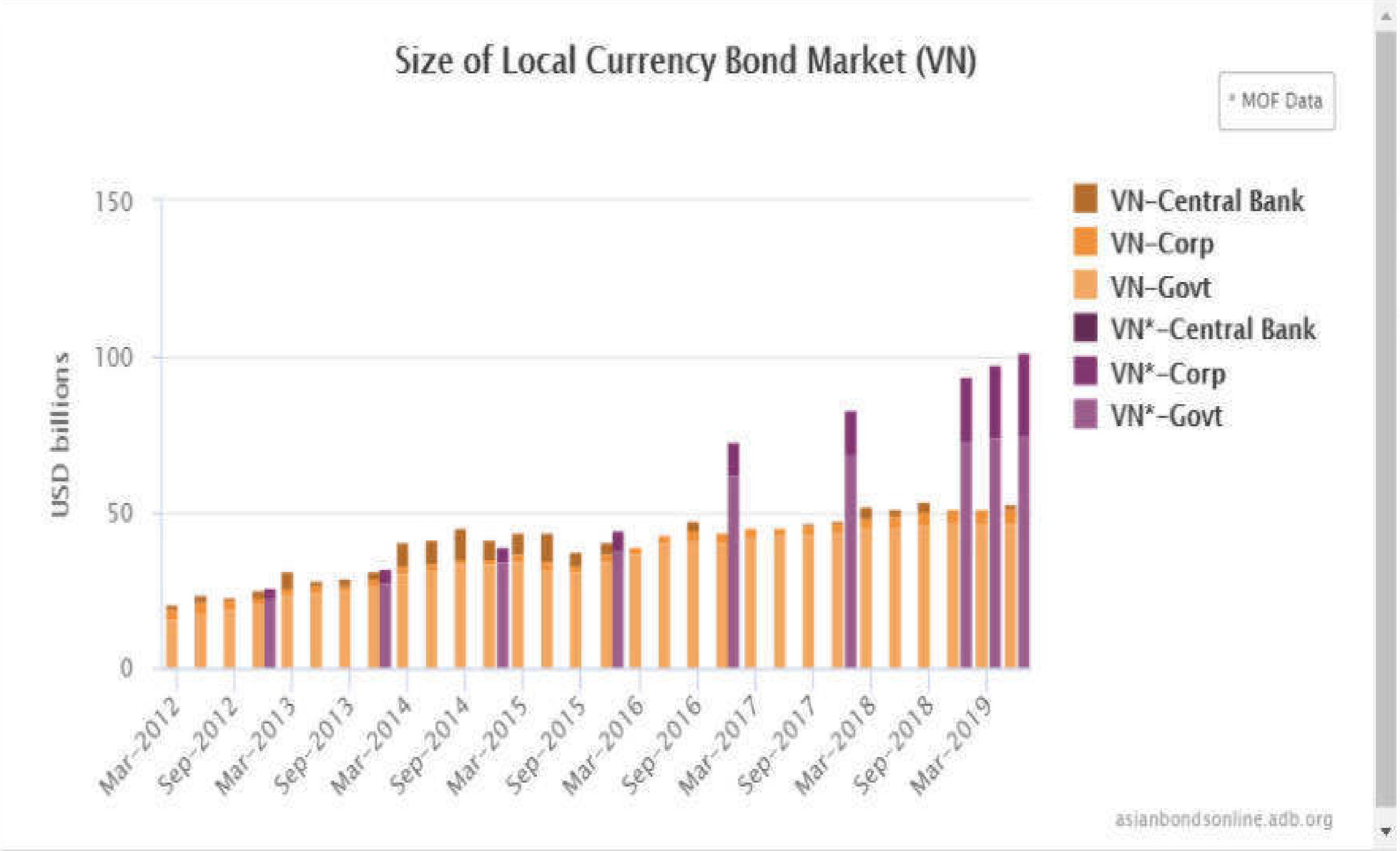
Update from the ABO team

Data portal update

- Data collaboration with Vietnam Ministry of Finance (VMOF) is ongoing.
- Due to limits to historical series and for consistency purpose, we continue to present two sets of data for Viet Nam.
  - Taken from Bloomberg which provides a longer historical series. This series will be discontinued by next year.
  - Data collected from VMOF will be presented annually from 2012 to 2018 and quarterly beginning 2019
- Updated Viet Nam bond market data accessed from the AsianBondsOnline website now include:
  - Investor Profile for Government Bonds
  - Foreign Holdings Share
  - Trading Volume
  - Bond Turnover Ratio

ABO Data Collaboration with VMOF

Download



Click and drag in the plot area to zoom in

Size of Local Currency Bond Market

This indicator shows the absolute amount of local currency (LCY) bonds outstanding, categorized as government and corporates. Government bonds include obligations of the central government, local governments, and the central bank. Corporates comprise both public and private companies, including financial institutions. Financial institutions comprise both private and public sector banks, and other financial institutions. Bonds are defined as long-term bonds and notes. Treasury bills, commercial paper, and other short-term notes.

Notes / Sources

For VN:

1. The bonds of state-owned entities are categorized as government bonds.

2. End-of-period exchange rates are from Bloomberg, LP.

Vietnam Bond Market Association and Bloomberg LP.

For VN*:

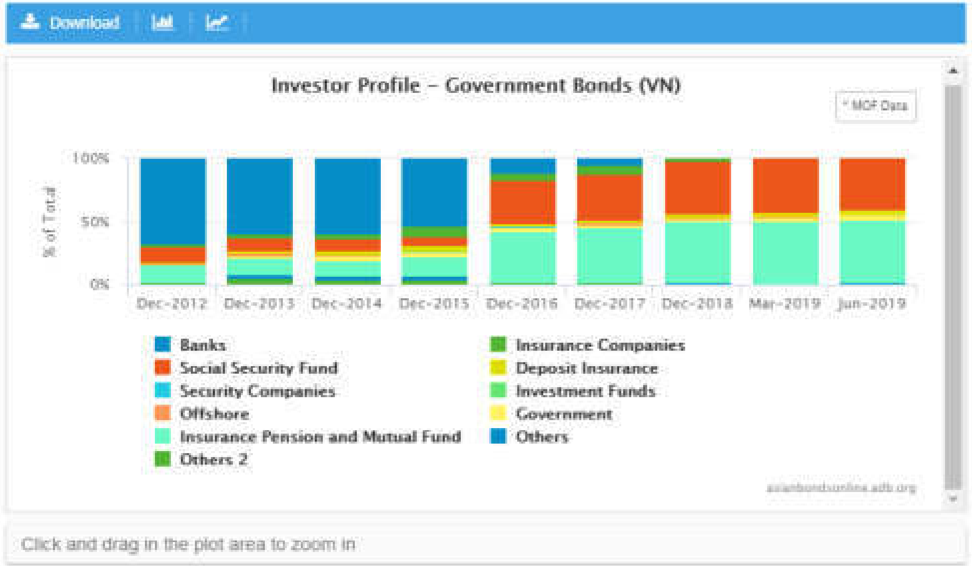
1. Figures were derived based on data obtained from Vietnam Ministry of Finance.

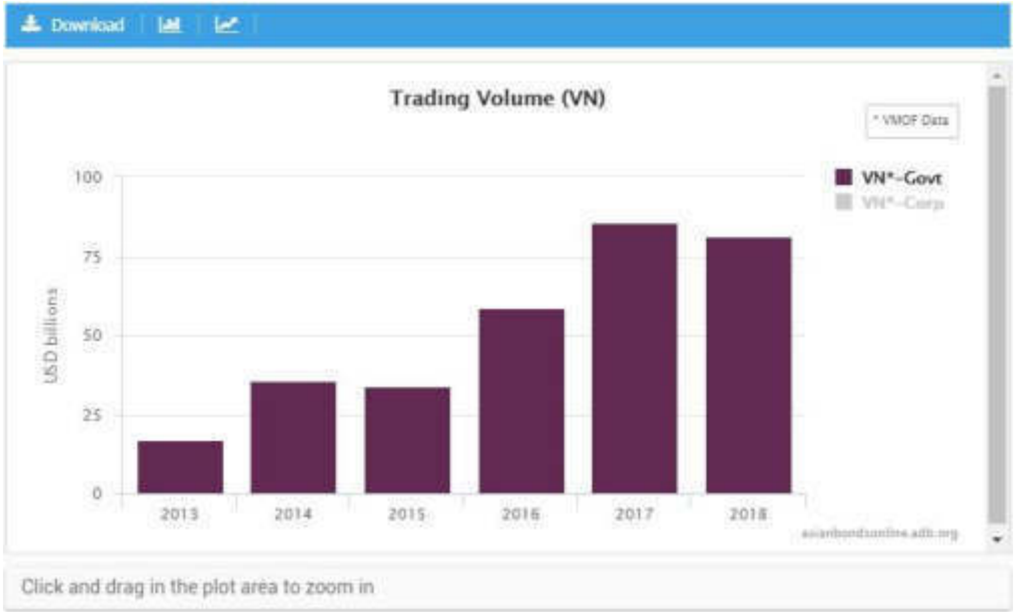
2. Annual figures are provided beginning 2012 and quarterly figures beginning 2019.

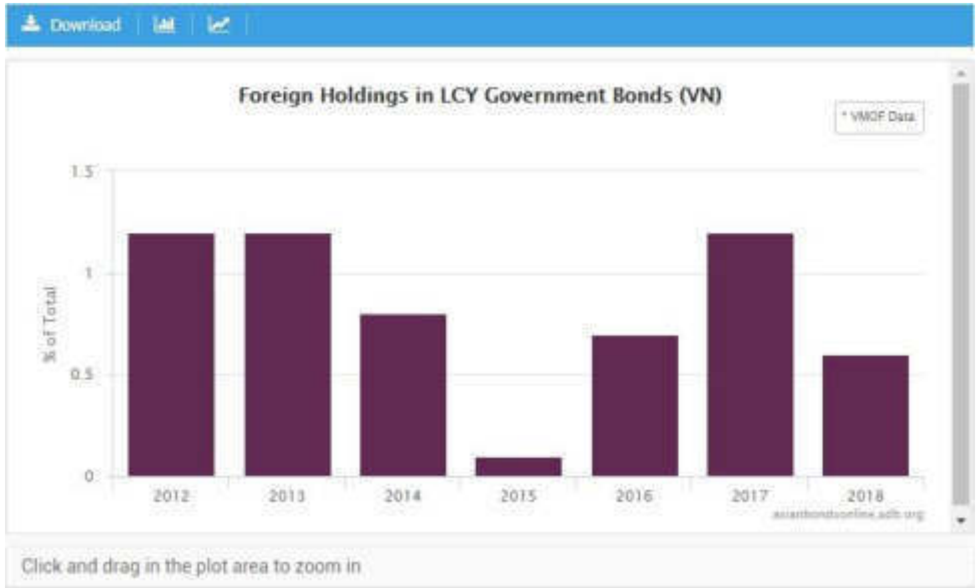
3. End-of-period exchange rates are from Bloomberg, LP.

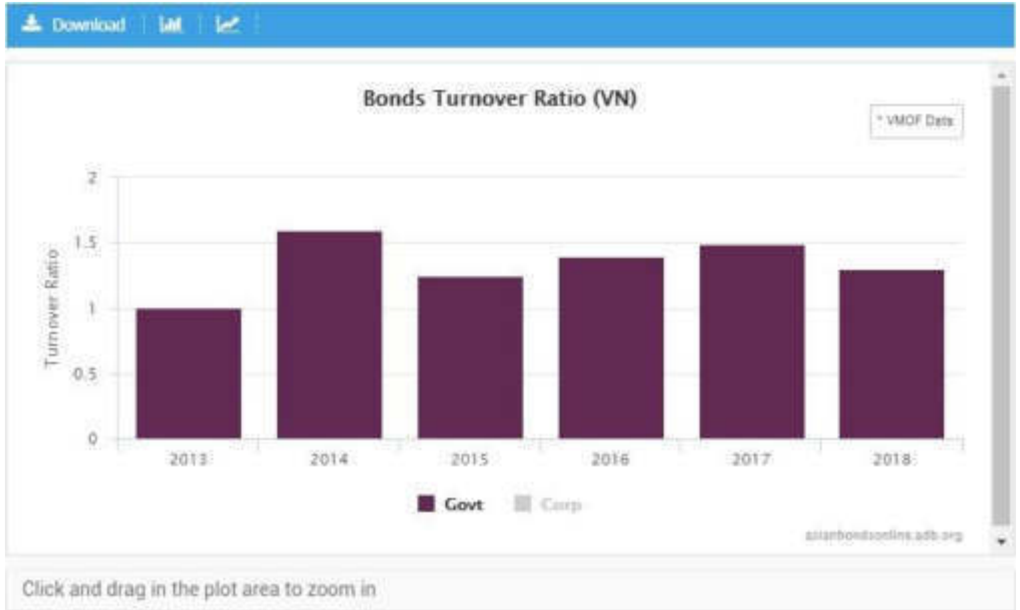
AsianBondsOnline and Vietnam Ministry of Finance.

ABO Data Collaboration with VMOF









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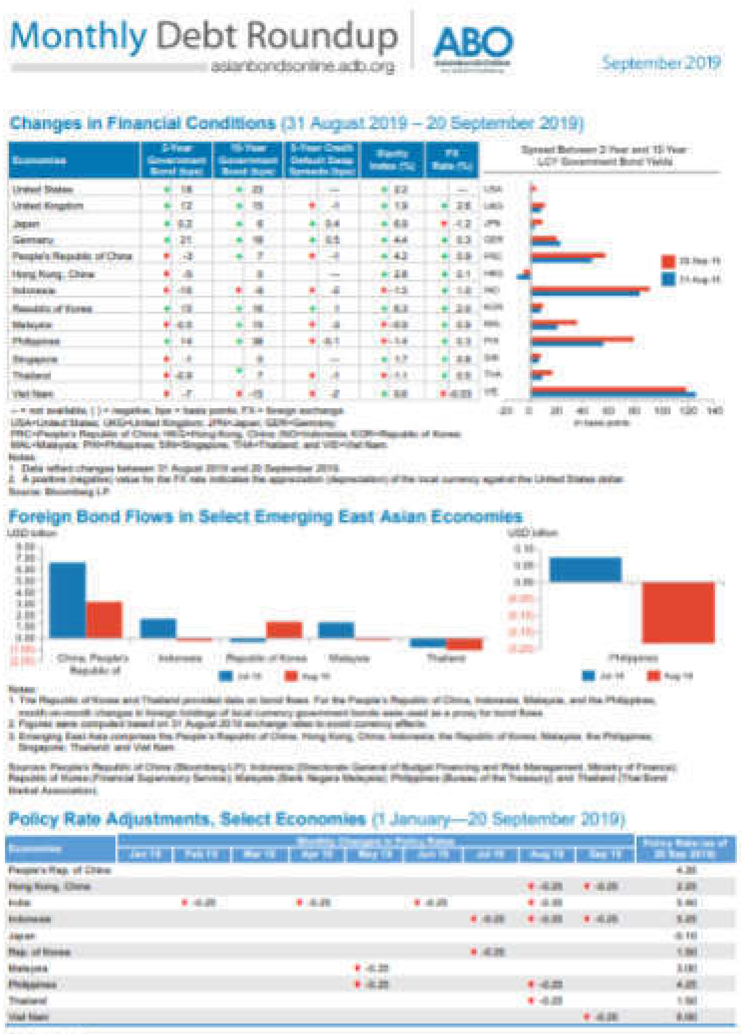
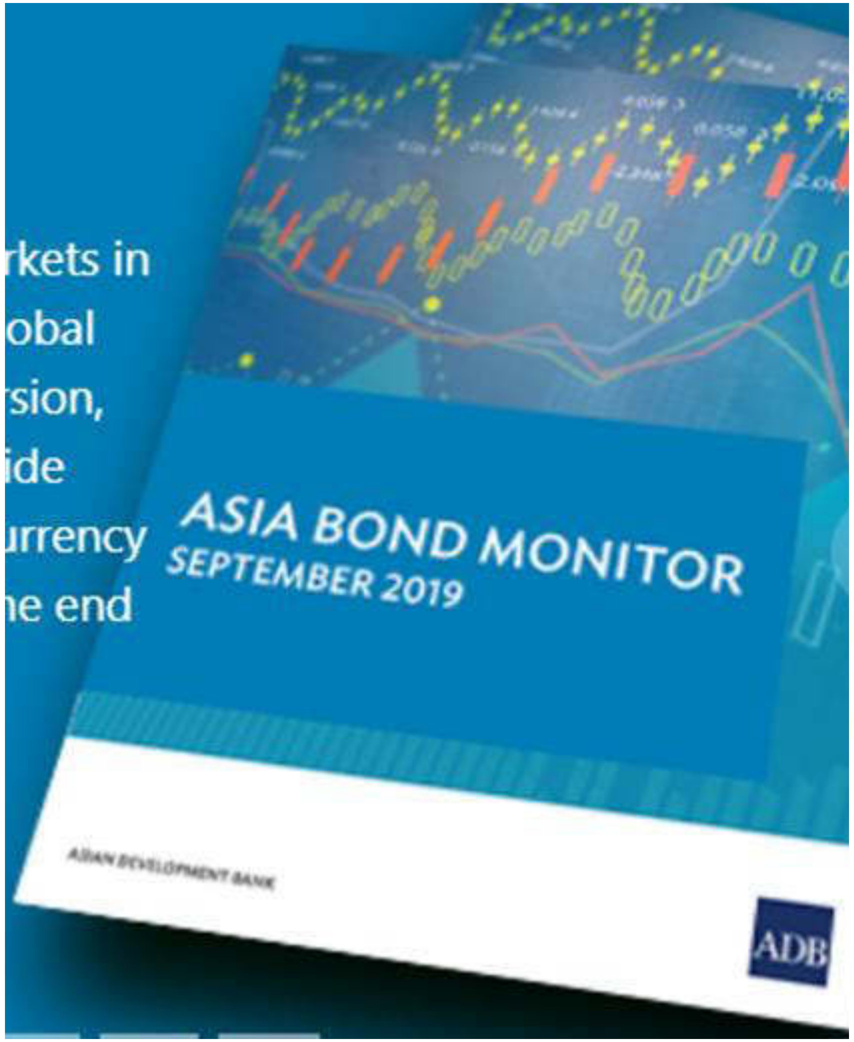
Knowledge Products and Services





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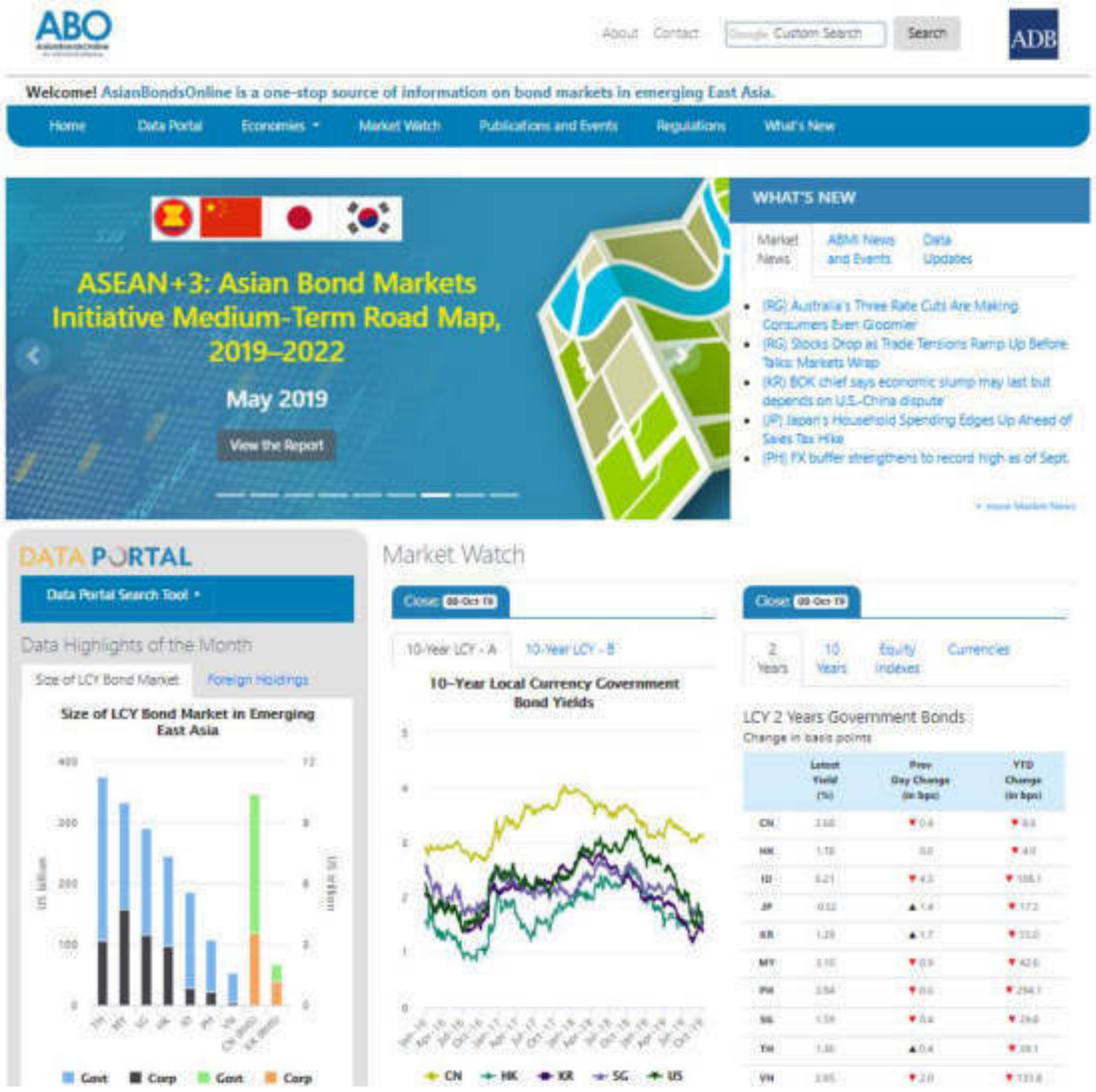
Knowledge Products and Services

Workshop on Bond Market Development in Emerging East Asia

Ho Chi Minh Stock Exchange Building
16 Vo Van Kiet Street, District 1
Ho Chi Minh City, Viet Nam
27 September 2019

AsianBondsOnline under the new ABMI road map



- Under the guidance of the new ABMI road map, AsianBondsOnline is aiming to create more synergy amongst different ABMI TFs to better serve various stakeholders.
- From data portal to one-stop information hub for the ABMI focusing on LCY market development in ASEAN+3 markets.
- Some preliminary work is in place, more needs to be done

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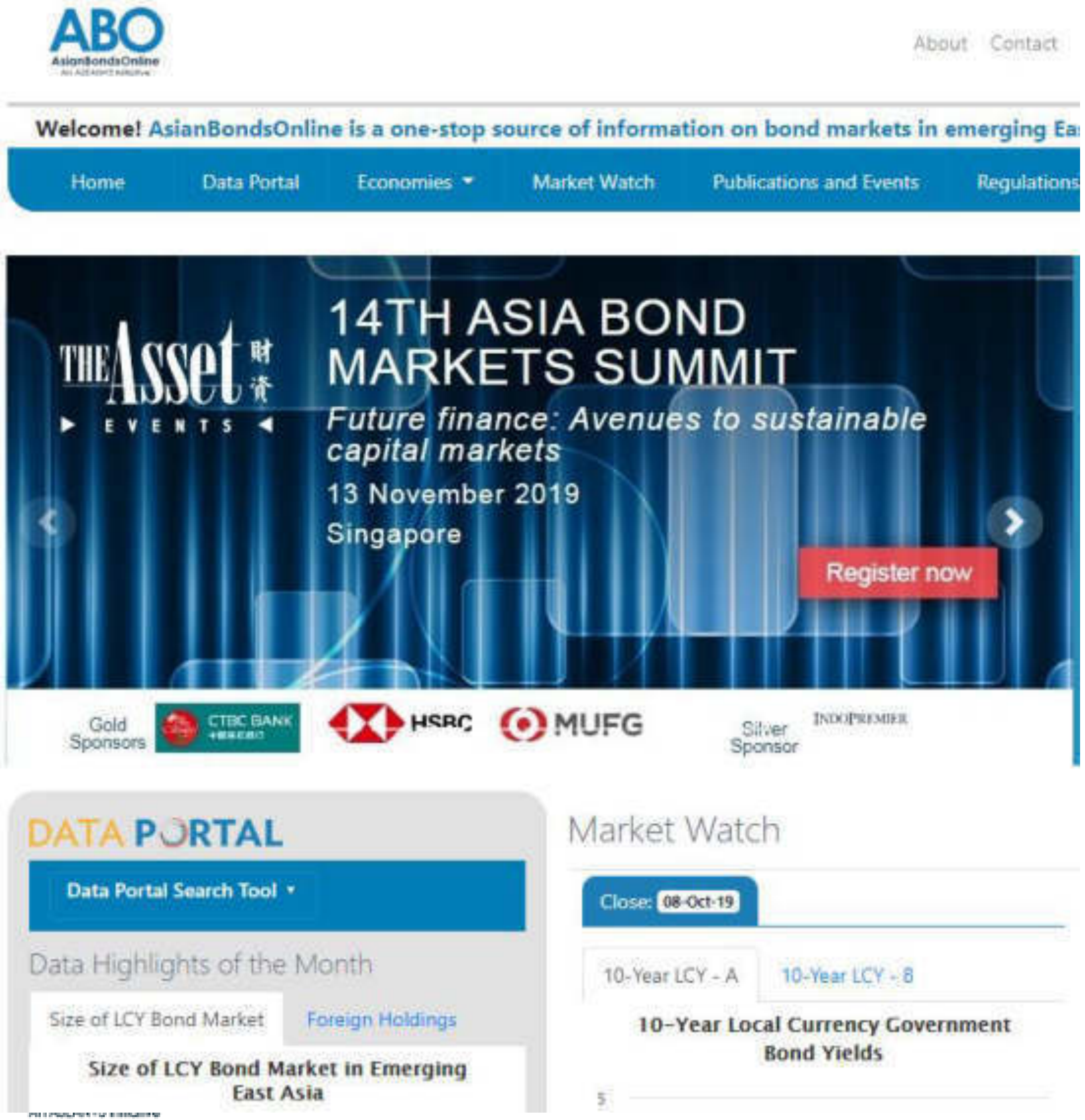
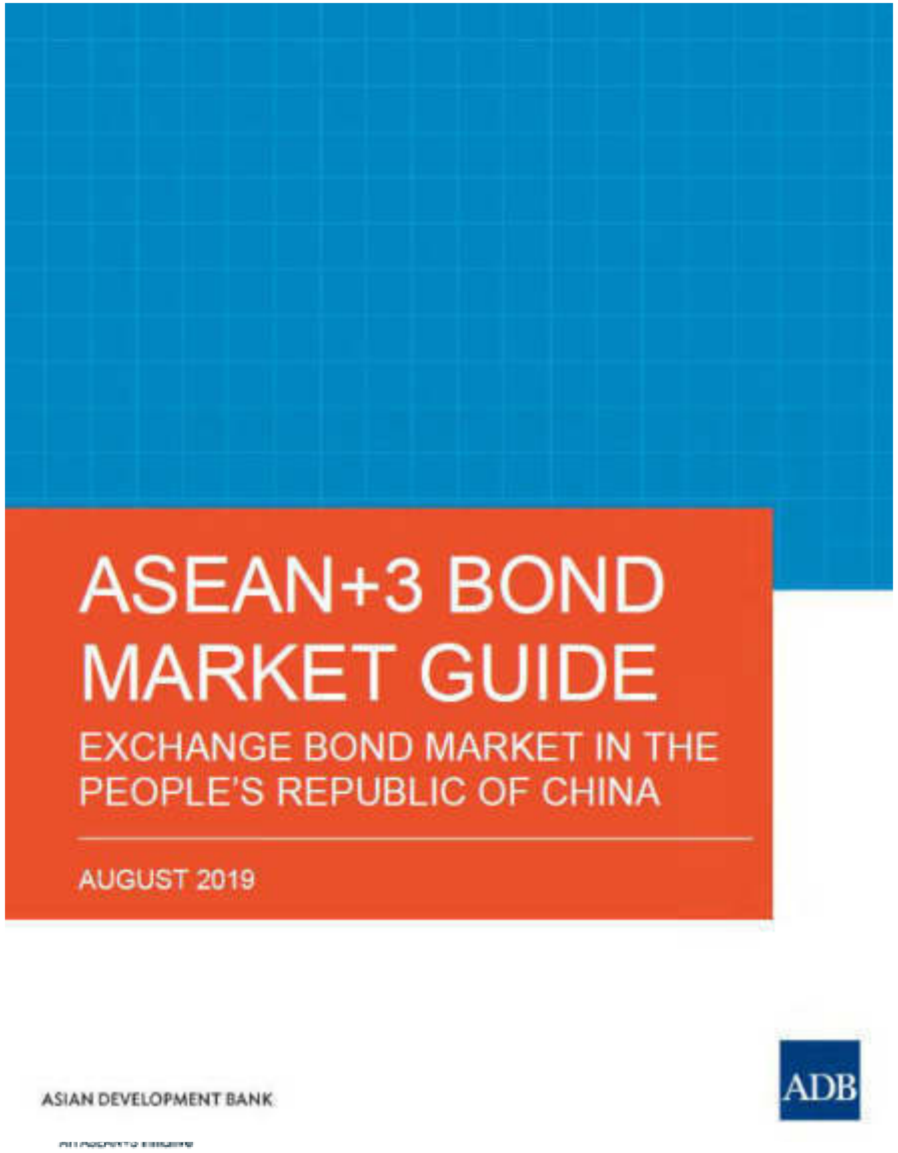
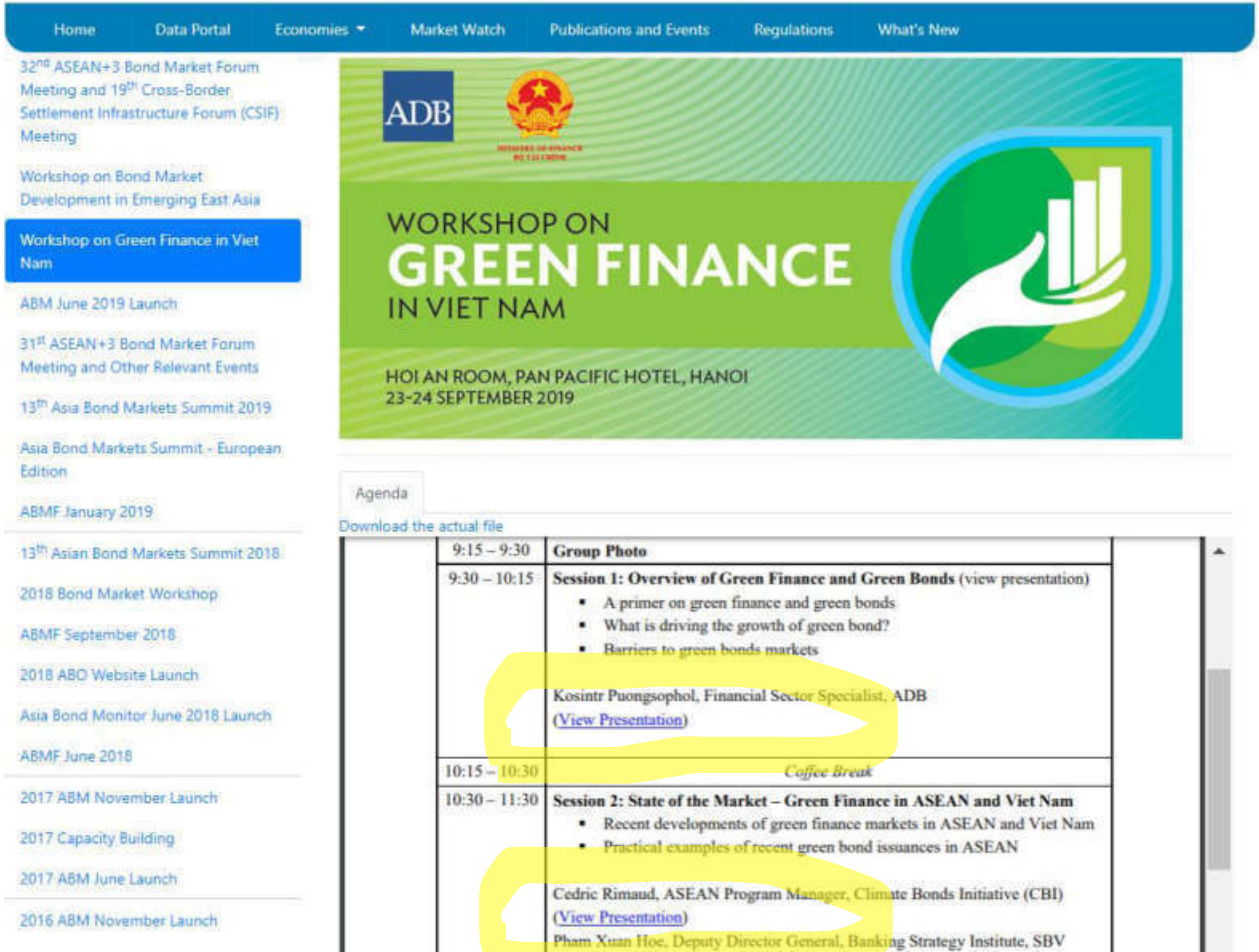
Make ABMI's efforts be seen

Make ABMI's efforts be seen



Fresh information at a click





Way forward

- Mission: make a brand for ASEAN+3 bond markets to investors
- Make ABMI efforts known, seen, accessible
- Under the current TA, we are still refining user experience
  - Publication and events section to be separated
  - Preparing for new TAs
- A new TA support from JMOF is being processed
  - Sections: green bonds, ABMF, maybe CGIF (advertisement)

Thank you

Visit https://asianbondsonline.adb.org

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cpetalcorin@adb.org

AsianBondsOnline is a one-stop source of information on bond markets in emerging East Asia

AsianBondsOnline
An ASEAN+3 Initiative

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asianbonds_feedback@adb.org

asianbondsonline.adb.org

JAPAN

ADB

CGIF Credit Guarantee & Investment Facility

An Asian Bond Markets Initiative

Comparison of ASEAN+3 Corporate Bond Markets

18 October 2019

32nd ABMF

Shenzhen, China

Dong Woo Rhee, CFO

Credit Guarantee and Investment Facility (CGIF)

Agenda

I. Introduction and Update of CGIF

II. Corporate bond market sizes of ASEAN+3

III. Characteristics of Corporate bonds of ASEAN+3

CGIF

Introduction of CGIF

Legal Structure	**A Trust Fund of the Asian Development Bank (ADB)** *Governed by CGIF Articles of Agreement, ADB acts as the Trustee for CGIF's assets*
Establishment	**12 November 2010** *(commenced operations May 2012)*
Paid-In Capital	**US$ 1,054 million**
Maximum Leverage	**2.5 times**
Contributors *(Shareholders)*	**Governments of ASEAN+3** *(10 member countries of ASEAN + China, Japan, South Korea)* *and* **Asian Development Bank (ADB)**
Objective	**Development of Capital Markets in ASEAN+3** *(Part of Asian Bond Markets Initiative (ABMI))*
Main Operations	**Guaranteeing Bonds issued in ASEAN+3**
Ratings	**Global Scale** **AA** *(Standard & Poor's)* **AAA** *(RAM - Malaysia)* **ASEAN Scale** **AAA** *(RAM - Malaysia)* **National Scale** **AAA** *(RAM, MARC – Malaysia, TRIS Rating – Thailand Fitch Ratings – Indonesia)*

KEY 2019 UPDATE OF CGIF

❑ Management Update

- Ms. Guiying Sun, CEO effective as of 1 Aug 2019
- Mr. Mitsuhiro Yamawaki, CRO & Deputy CEO effective as of 17 Sep 2019

❑ New Paid-in Capitals Update

- $100,000 from Lao on 3 April 2019
- $142.8M from China on 23 April 2019
- $1.7M from Philippines on 19 June 2019
- $50M from ADB on 12 September 2019

❑ New Guarantee Issues Update

- THB 2.22B bond issued by Yoma Strategic (Myanmar) in Jan 2019
- VND 2.318T bond issued by REE (Vietnam) in Jan 2019
- SGD 70M bond issued by CJL (Korea) under AMBIF in Mar 2019

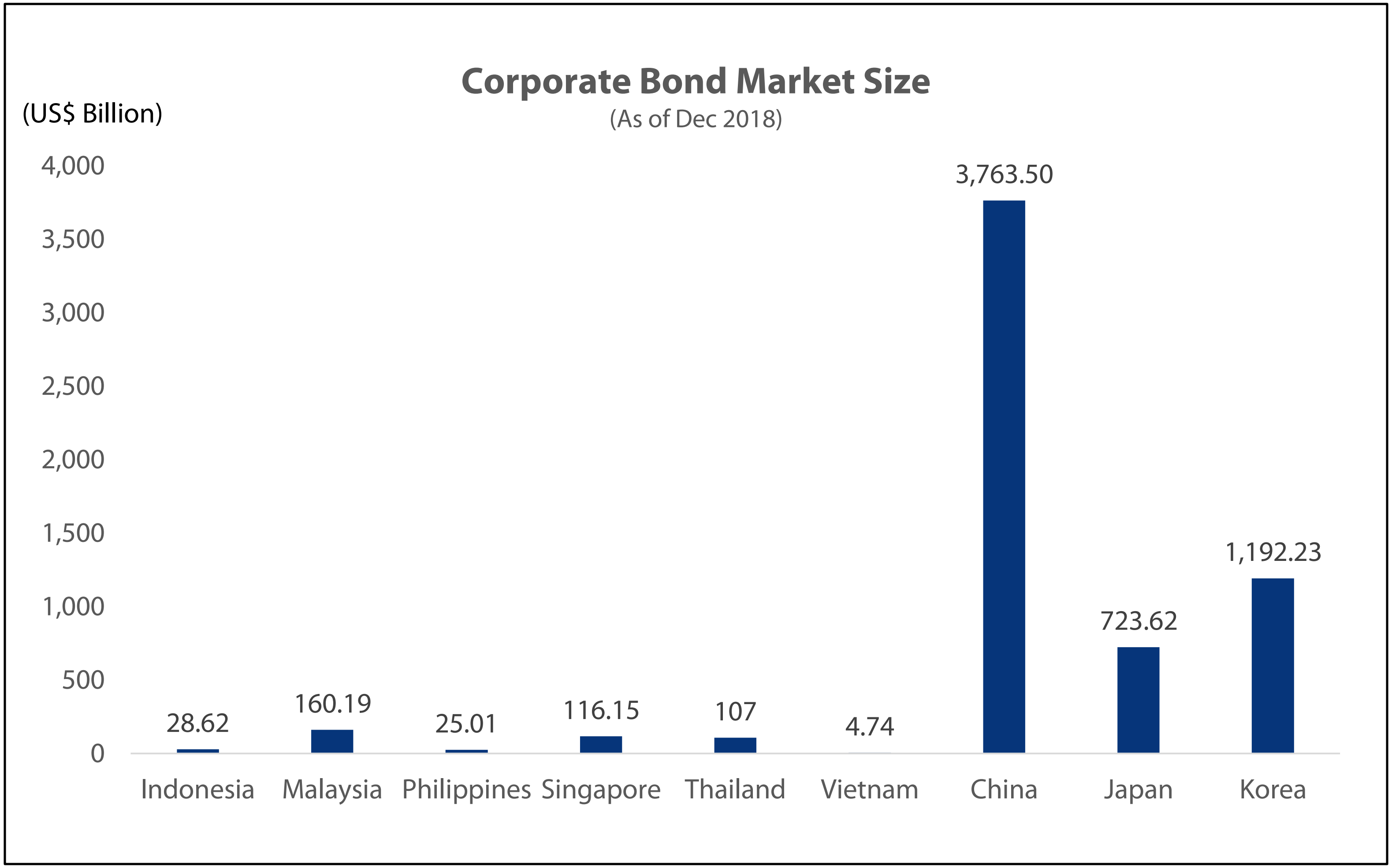
Agenda

I. Introduction and Update of CGIF

II. Corporate Bond Market Sizes of ASEAN+3

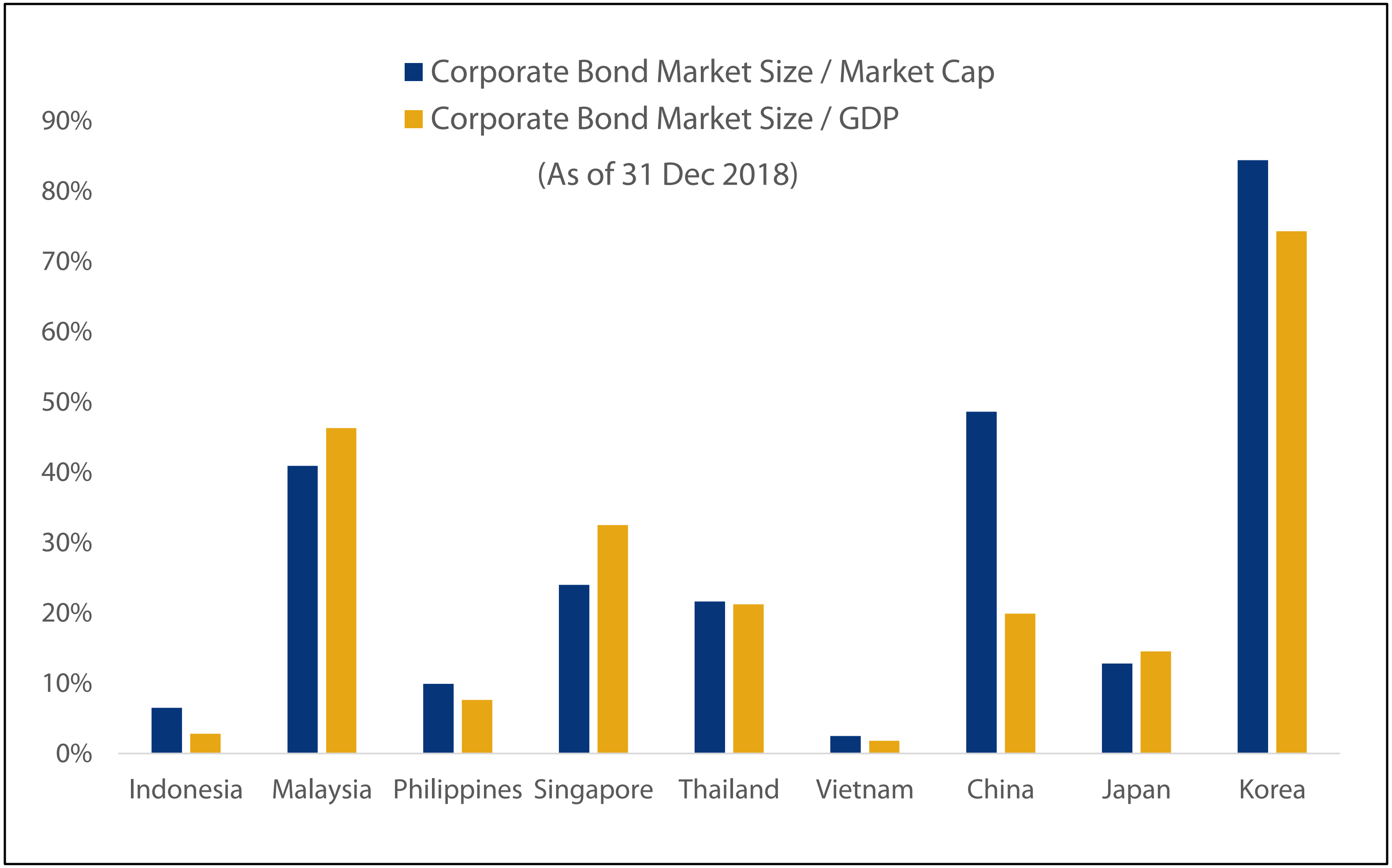
III. Characteristics of Corporate Bonds of ASEAN+3

Absolute Size



(Data Source: AsianBondsOnline)

Relative Size (1)



(Data Source: AsianBondsOnline; Bloomberg for data on market capitalization)

Relative Size (2)

(Data Source: AsianBondsOnline, central bank of each country for data on corporate loans)

Agenda

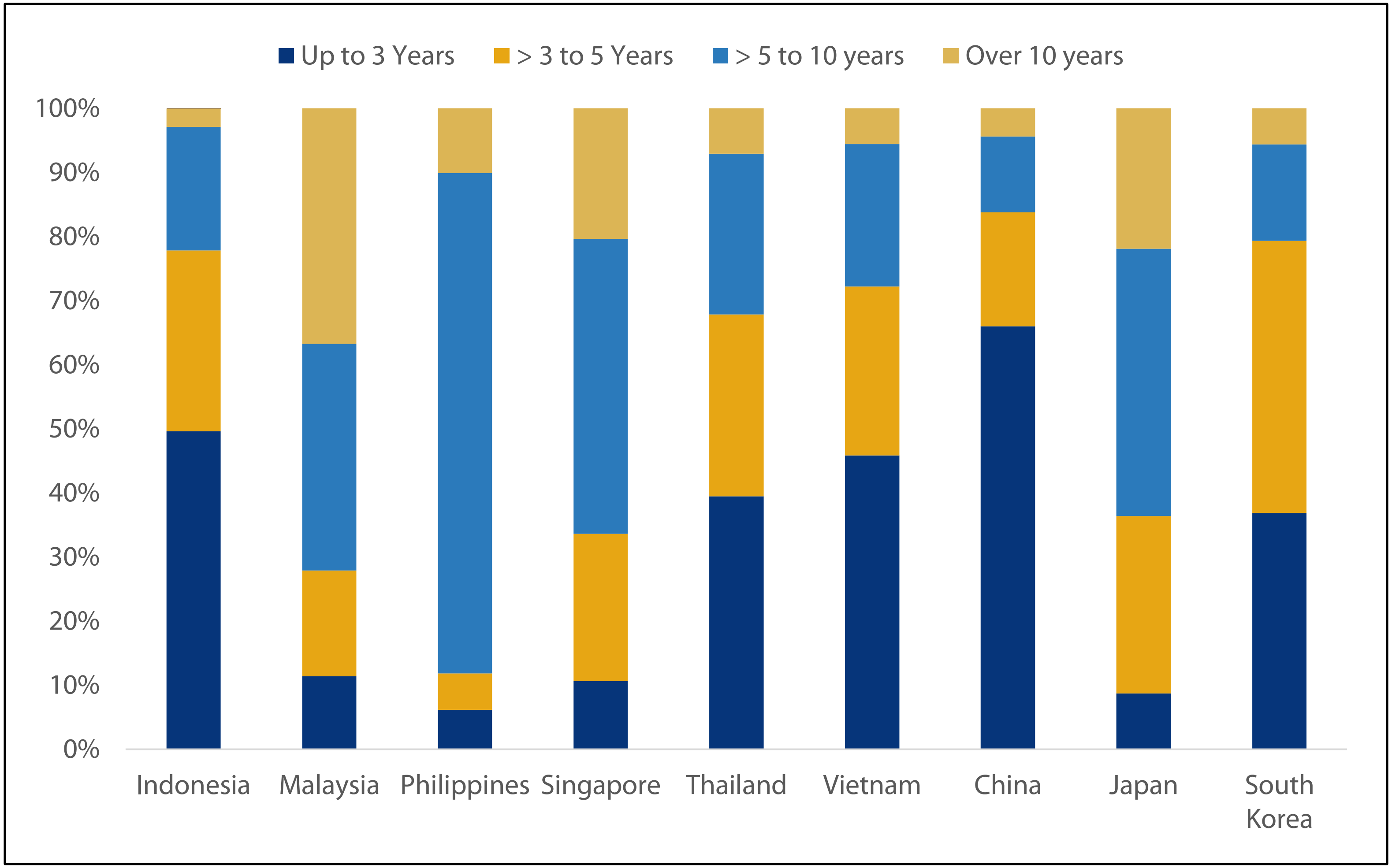
I. Introduction and Update of CGIF

II. Corporate Bond Market Sizes of ASEAN+3

III. Characteristics of Corporate Bonds of ASEAN+3

1. Maturity Distribution
2. Maturity Type
3. Coupon Type
4. Payment Rank
5. Credit Rating
6. Guaranteed Bonds
7. Cross Border
8. Summary

Maturity Distribution (1)



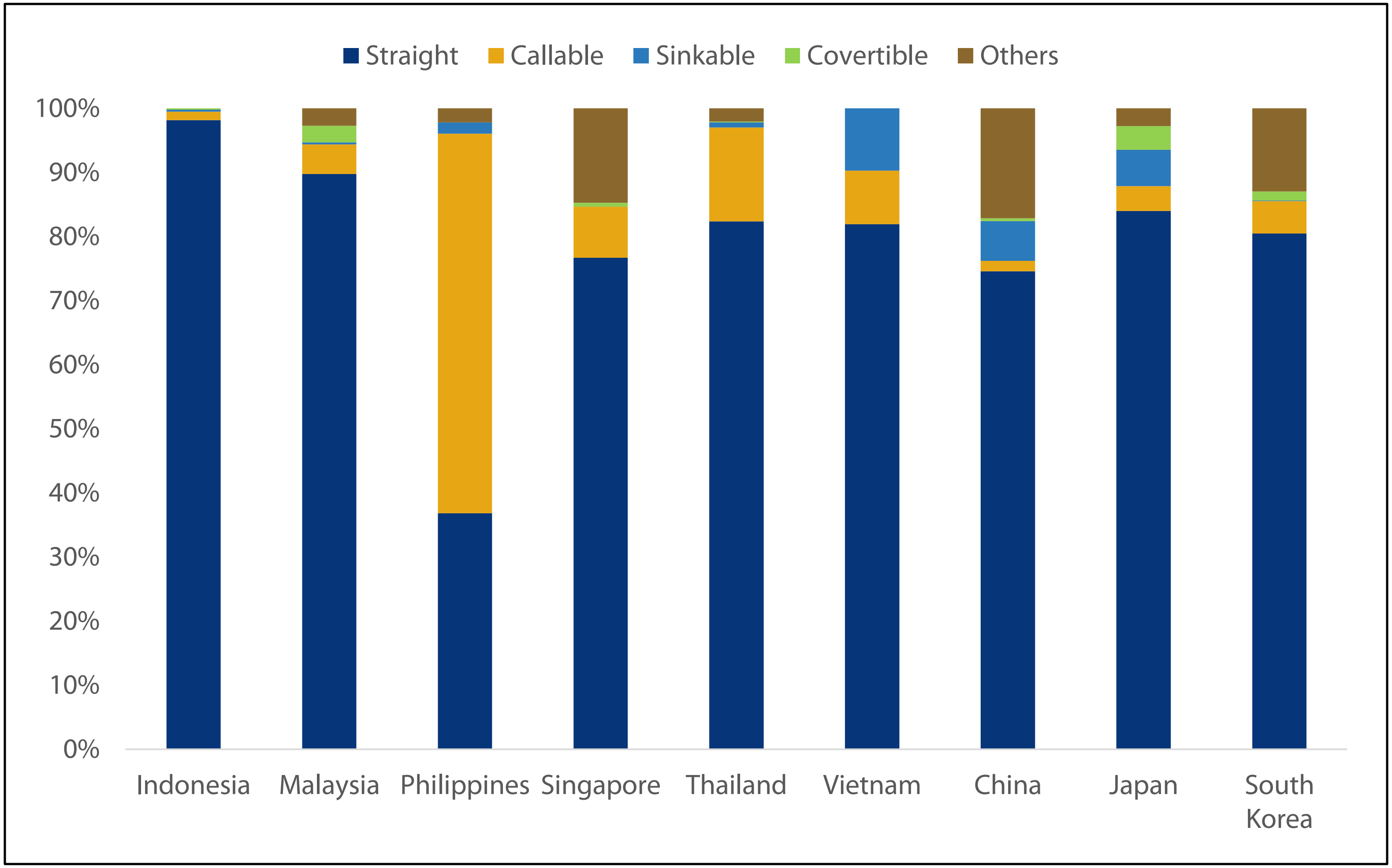
(Data Source: Bloomberg, as of 31 Dec 2018)

Notes:
1. Ranges include long-end tenors and exclude short-end tenors.
2. Perpetual bonds are included in "Over 10 years".
3. Data refers to original maturity

Maturity Distribution (2)

Country	Special Feature	Reason behind
Malaysia	Over 10 year maturity bonds occupy a substantial share of the corporate bond market.	Infrastructure bonds occupy more than 30% of corporate bonds in Malaysia
Philippine	Bonds having the maturities between 5 to10 years occupy a majority share of the corporate bond market.	Bank bonds whose issuance maturities are longer than 5 years are exempt from WHT (withholding tax).

Maturity Type (1)



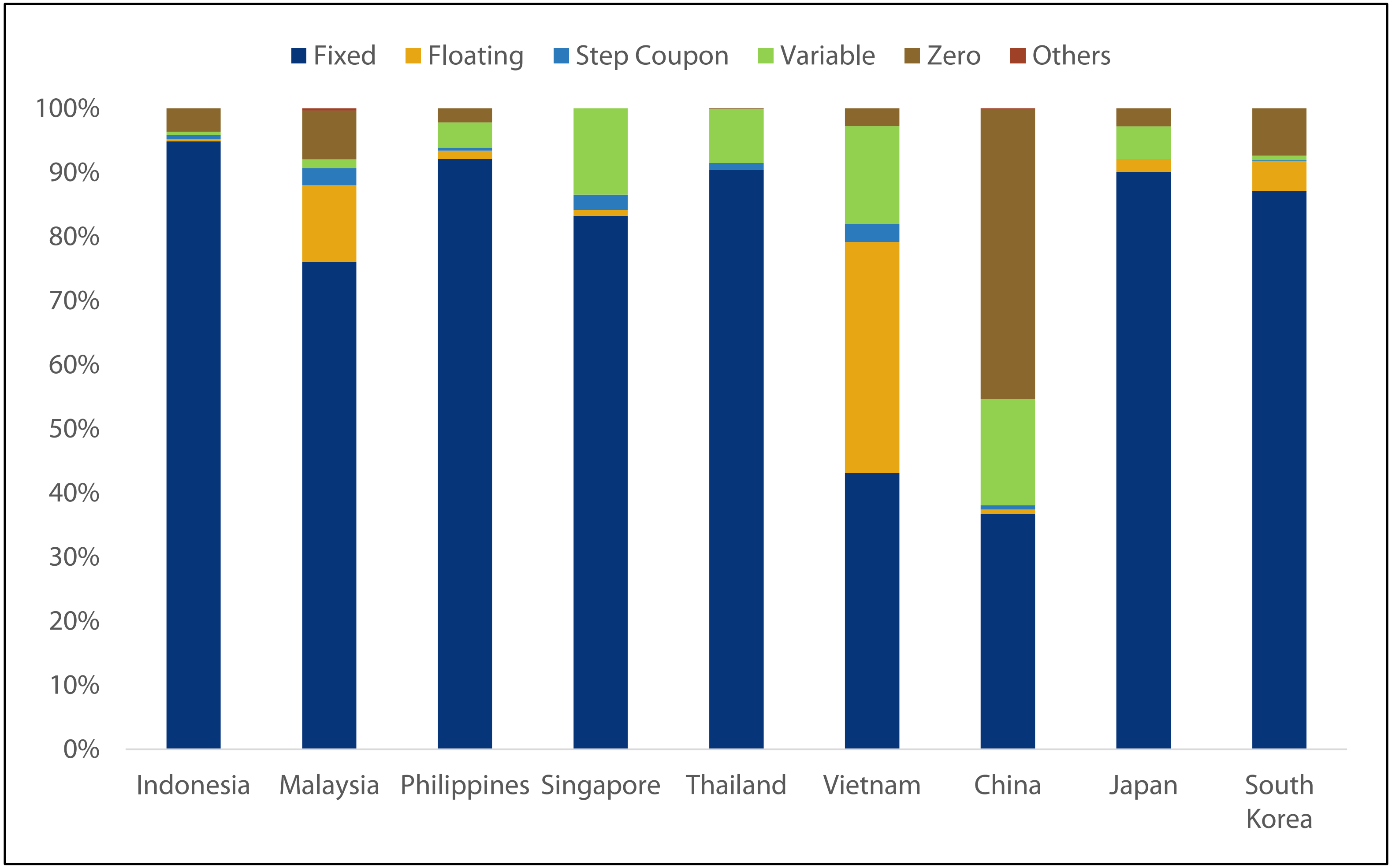
(Data Source: Bloomberg, as of 31 Dec 2018)

Note:
"Others" include putable bonds, bonds with hybrid features (such as callable with sinkable feature, perpetual with callable features, etc.)

Maturity Type (2)

Country	Special Feature	Reason behind
Philippine	Callable bonds are more common than straight bonds.	Issuers have more bargain power than investors in Philippine, which enables issuers to issue callable bonds with little spread.

Coupon Type (1)

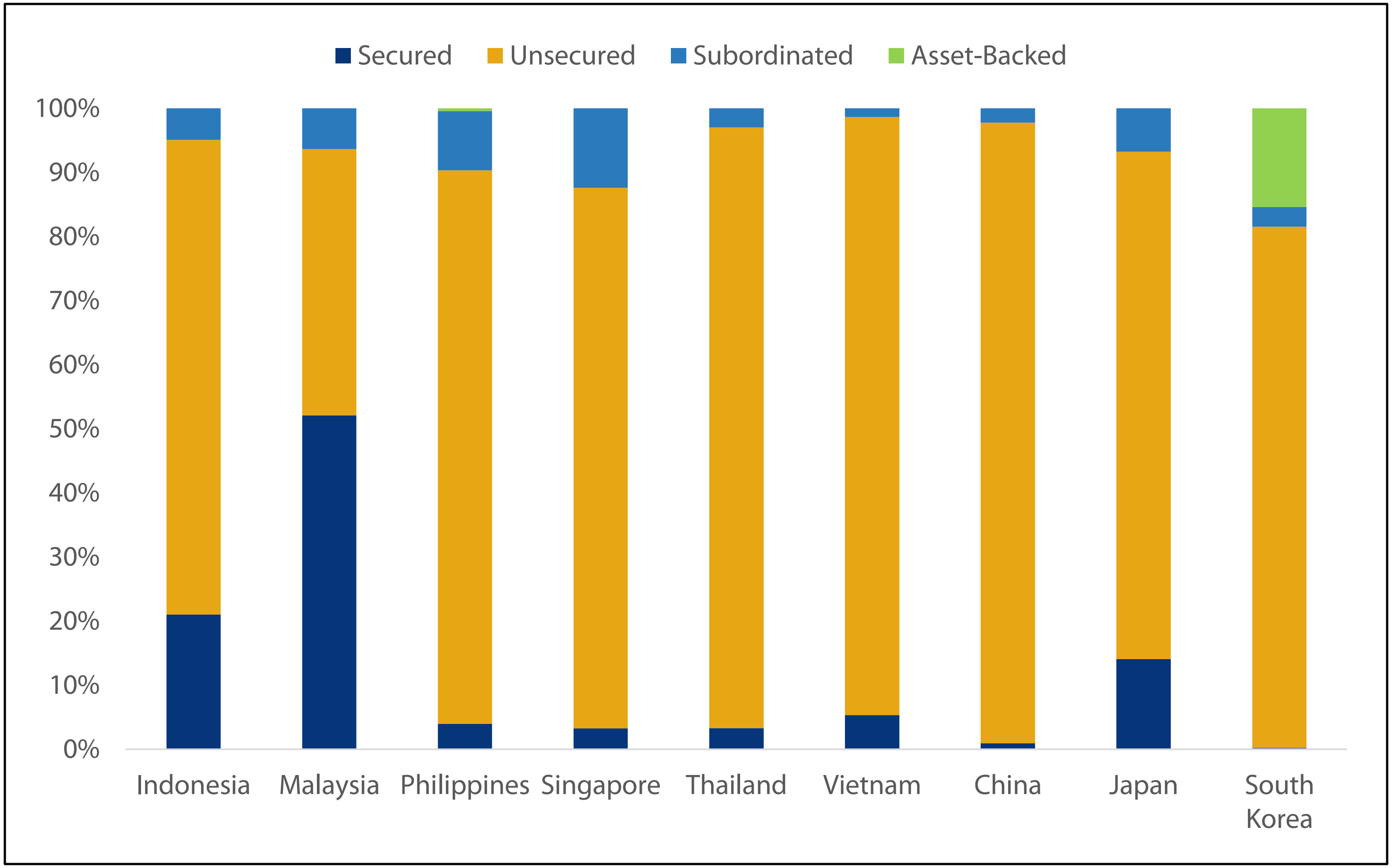


(Data Source: Bloomberg, as of 31 Dec 2018)

Coupon Type (2)

Country	Special Feature	Reason behind
Vietnam	The sum of floating and variable coupon bonds occupies more than a half of corporate bonds.	Variable coupon is similar to floating coupon in Vietnam as both are linked to 12M deposit rate. These coupon types are preferred by commercial banks, the biggest investor group in Vietnam, whose liabilities are also linked to deposit rates.
China	Zero coupon bonds occupy a substantial share of the corporate bond market	All zero coupon bonds are issued by financial institutions with 3 years or less maturities.

Payment Rank (1)

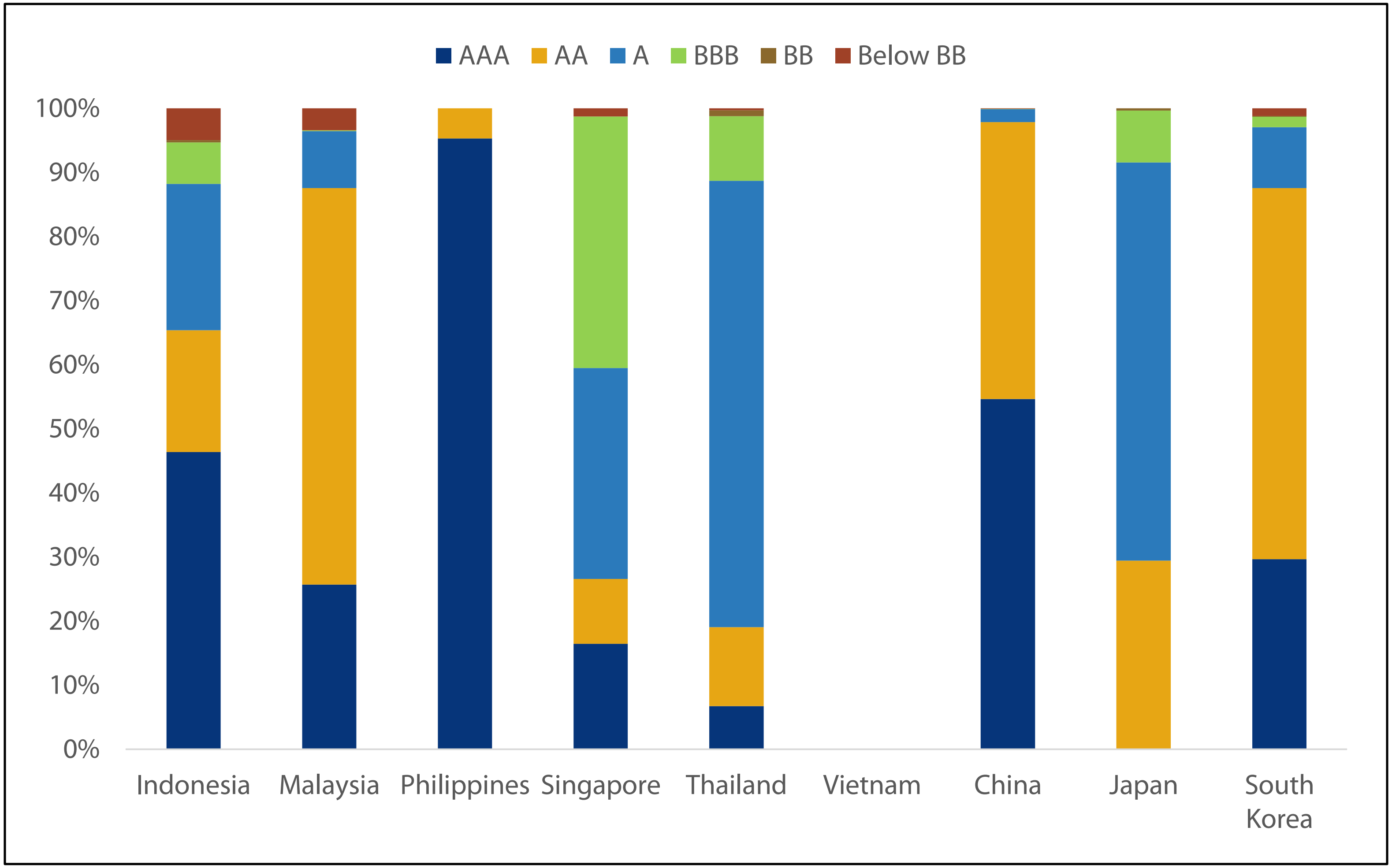


(Data Source: Bloomberg, as of 31 Dec 2018)

Payment Rank (2)

Country	Special Feature	Reason behind
Indonesia	Secured bonds occupy a substantial share of the corporate bond market.	Majority of corporate bonds are issued by financial entities and it is common for financial entities to provide receivables as collateral when they issue bonds in Indonesia.
Malaysia	Secured bonds occupy a majority share of the corporate bond market.	High percentage of secured bonds in Malaysia is linked to high percentage of project bonds.

Credit Rating (1)



(Data Source: Bloomberg, as of 31 Dec 2018)

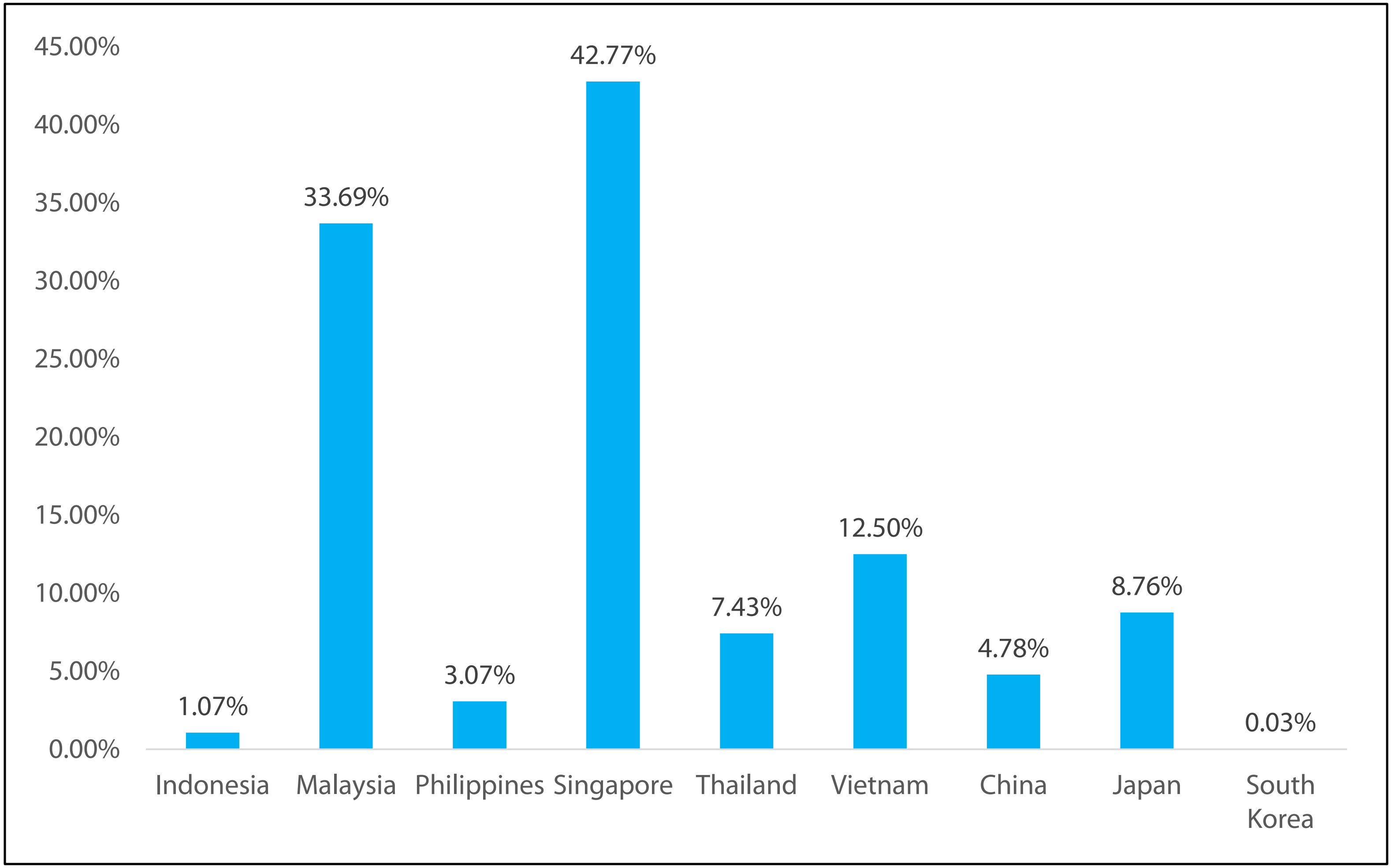
Note:

1. Rating agencies used for each country: Pefindo (Indonesia), RAM (Malaysia), PhilRatings (Philippines), Moody's (Singapore), TRIS (Thai), R&I (Japan), NICE (South Korea), Chengxin (China).
2. Unrated bonds are excluded.

Credit Rating (2)

Country	Special Feature	Reason behind
Malaysia	Rating cliff (mostly AAA and AA)	Rating cliff of Malaysia is told to be attributed to credit event experience during the financial crisis.
Philippine	Rating cliff (only AAA and AA)	Companies tap bond market only when they can no longer use bank loans due to single borrower's limit, 25% of bank's net capital. Small companies hardly touch the limit.
China	Rating cliff (mostly AAA and AA)	Rating cliff of China is told to be attributed to credit risk aversion of investors
Japan	No AAA rated bonds	R&I, local rating agency in Japan is conservative as even JBIC is rated AA+.

Guaranteed Bonds (1)

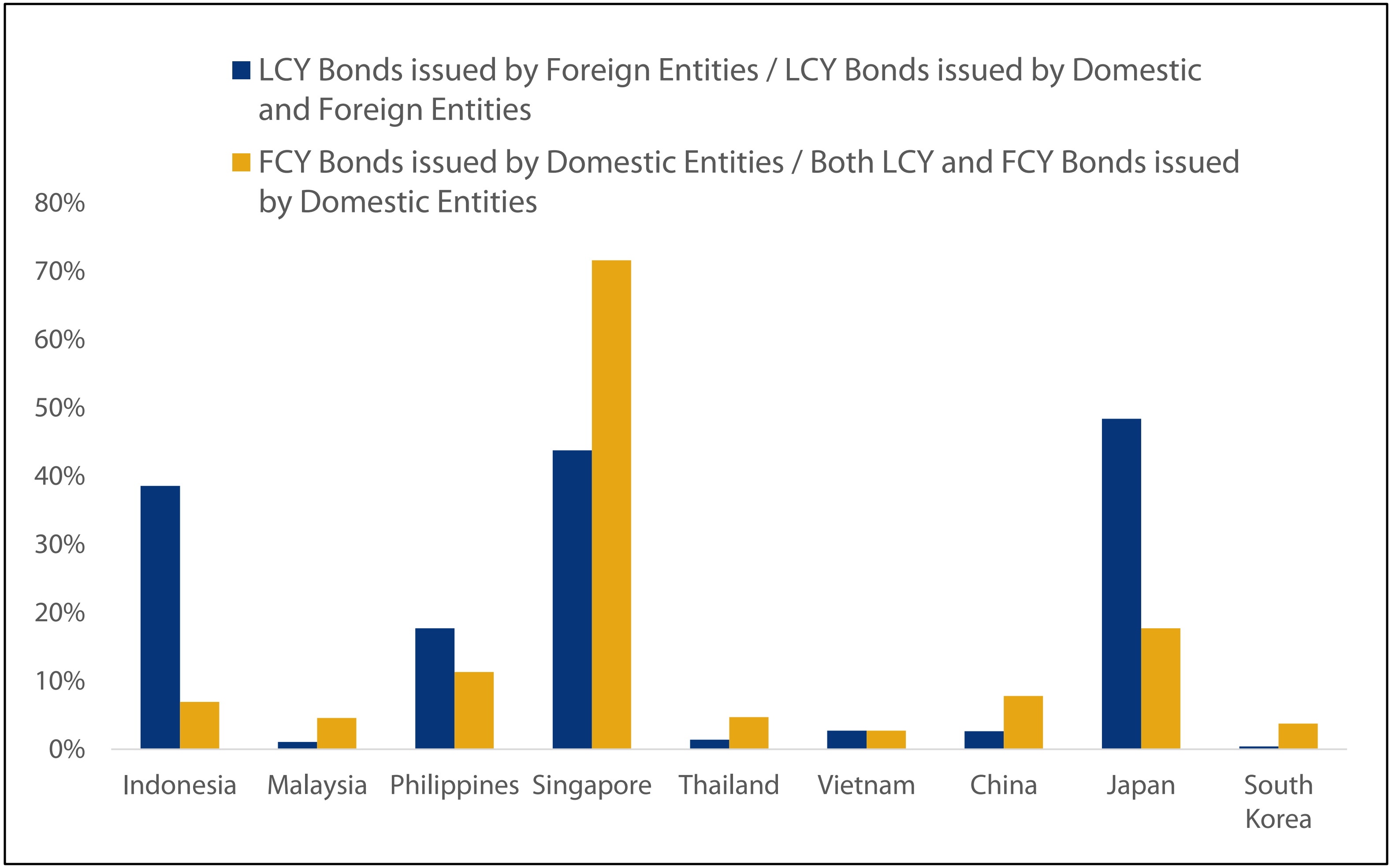


(Data Source: Bloomberg, as of 31 Dec 2018)

Guaranteed Bonds (2)

Country	Special Feature	Reason behind
Malaysia	Guaranteed bonds occupy a substantial share of the corporate bond market.	Danajamin, national guarantor, plays a significant role in Malaysian corporate bond market.
Singapore	Guaranteed bonds occupy a substantial share of the corporate bond market.	Most of guarantees are done by parent companies.
Thailand	Partially guaranteed bonds	Big yield gap between A- and BBB+ gives the chance of partial guarantee.

Cross Border (1)



(Data Source: Bloomberg, as of 31 Dec 2018)

Cross Border (2)

Country	Special Feature	Reason behind
Indonesia	High percentage of foreign entities issuing IDR bonds	Almost all IDR bonds issued by foreign entities are settled in major currencies like USD or JPY. It is known that they are issued by financial institutions for economic reason.
Japan and Singapore	High cross border bonds percentage	Both JPY and SGD are 1) low interest rate currencies and 2) easy to be converted to other currencies.

Summary of Comparison

Country	Summary of Characteristics
Indonesia	Less developed corporate bond market with significant major currency settled IDR bonds issued by foreign entities
Malaysia	Relatively developed corporate bond market with the longest average tenor. However, less generous to credit.
Philippine	Less developed corporate bond market, only for AAA and AA rated issues. 5 to 10 year maturity class dominates the market.
Singapore	Relatively developed corporate bond market with high percentage of parent guarantee.
Thailand	Relatively developed corporate bond market with generous credit appetite compared with peers.
Vietnam	Least developed corporate bond market among ASEAN 6+3.
China	Dominated by short tenor and high rating bonds. Substantial zero coupon bonds are observed.
Japan	Active cross borders. Conservative credit ratings from local rating agencies.
South Korea	Biggest corporate bond market in view of economic scale with well developed ABS. Cross border and guaranteed bonds are relatively rare.

Thank You

Dong Woo Rhee

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www.cgif-abmi.org

ADB

Account Structure Study and Standardization of KYC

Satoru Yamadera, ADB

International experts:
Shinya Kim,
Naotaka Shibasaki,
Daisuke Yachi
NTT DATA SYSTEM TECHNOLOGIES Inc.

Global IT Innovator
NTT DATA GROUP

Outline

1. Objective of the study
2. What is KYC?
3. Information to be collected for KYC
4. Country case studies: flows of KYC process for on-boarding and taxation
    - Indonesia
    - Philippines
    - People's Republic of China
        - Bond Connect
    - Japan
    - Thailand
    - Malaysia
    - Singapore
5. Key findings from the case studies
6. Preliminary recommendation based on the interim study
7. Next step

Objective of the Study

- To promote cross-border bond transactions in ASEAN+3, identify account structures in ASEAN+3 markets.
    - Depending on the structure, flows of information to open an account may vary.
- Identify procedures for opening an account (market entry),
    - necessary information to be collected for market entry,
    - approval procedures if involved.
- Identify procedures and necessary information for taxation as a tax rate may vary depending on the status of investors such as resident and non-resident.
- Check whether the account structure would affect the procedures of market entry and taxation.
- Propose standardization of the procedures of market entry and tax status identification, where possible.

What is KYC?: Customer due diligence

Financial institutions should be prohibited from keeping anonymous accounts or accounts in obviously fictitious names.

Financial institutions should be required to undertake customer due diligence (CDD) measures when:

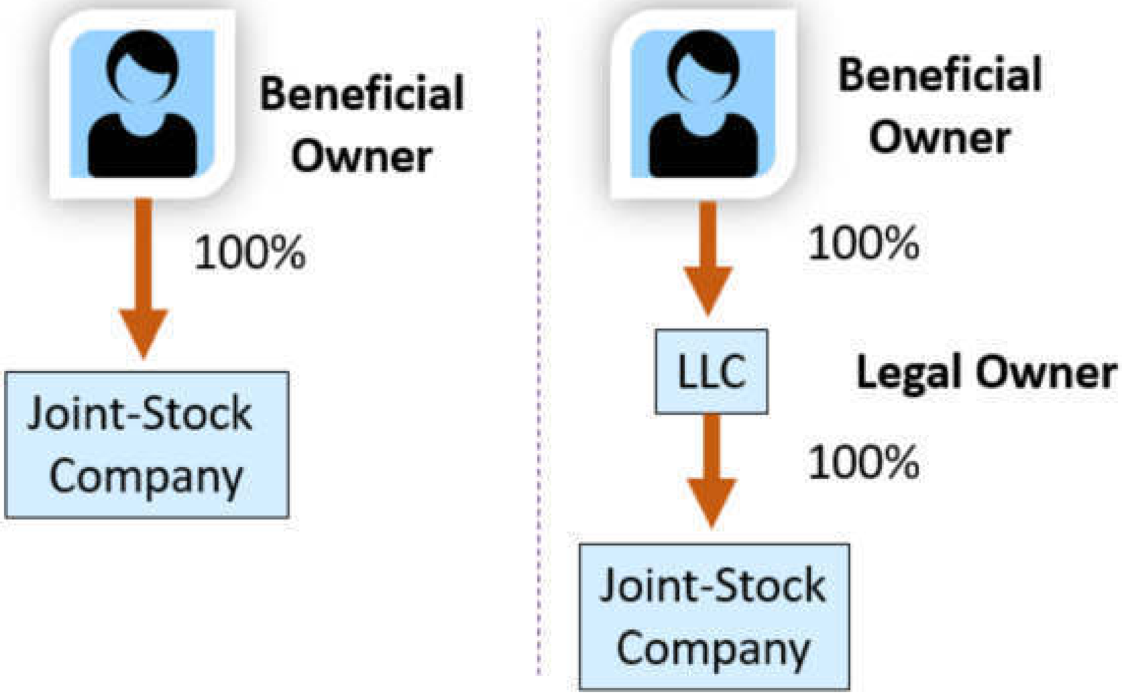
1. establishing business relations;
2. carrying out occasional transactions: (i) above the applicable designated threshold (USD/EUR 15,000); or (ii) that are wire transfers in the circumstances covered by the Interpretive Note to Recommendation 16;
3. there is a suspicion of money laundering or terrorist financing; or
4. the financial institution has doubts about the veracity or adequacy of previously obtained customer identification data.

Identification of Beneficial owner

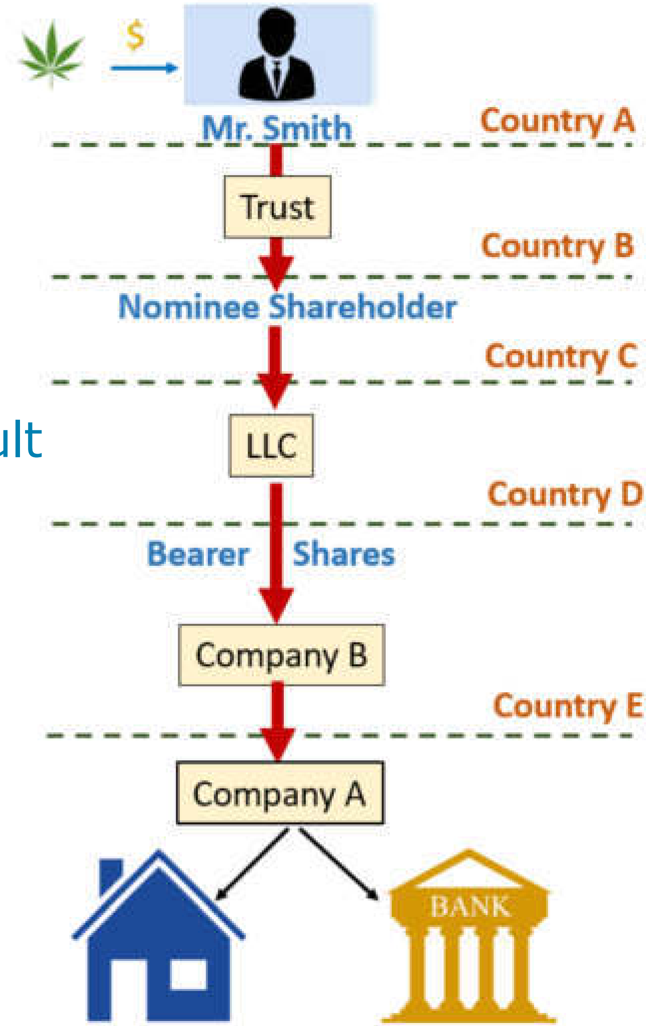
- Beneficial owner refers to the natural person(s) who ultimately owns or controls a customer and/or the natural person on whose behalf a transaction is being conducted. It also includes those persons who exercise ultimate effective control over a legal person or arrangement (FATF)

Beneficial owner

The BO is the individual or individuals who effectively owns or controls a legal vehicle.

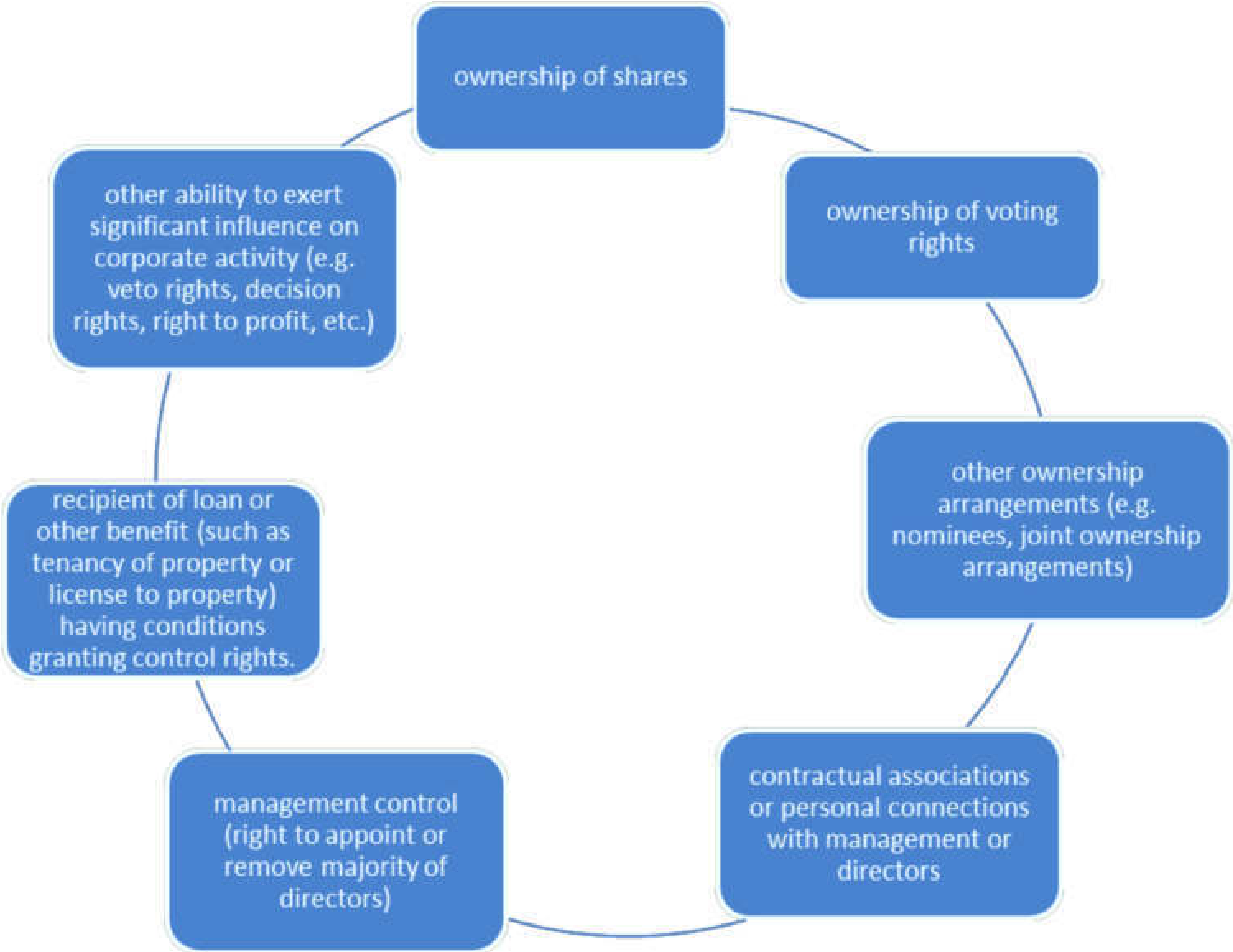


More difficult case



Source: OECD&IDB. 2019. A Beneficial Ownership Implementation Toolkit

Beneficially owner: Direct and indirect ownership and control



Source: OECD&IDB. 2019. A Beneficial Ownership Implementation Toolkit

Standard for Automatic Exchange of Financial Account Information in Tax Matters

The new global standard on Automatic Exchange of Information (AEOI) reduces the possibility for tax evasion.

It provides for the exchange of non-resident financial account information with the tax authorities in the account holders' country of residence.

Participating jurisdictions that implement AEOI send and receive pre-agreed information each year, without having to send a specific request.

The **Common Reporting Standard** (**CRS**) is an information standard for the **Automatic Exchange Of Information** (**AEOI**) regarding bank accounts on a global level, between tax authorities developed by OECD in 2014.

Information to be collected for KYC

In KYC, it may be better to distinguish the two below:

1. Market entry: Financial institutions must check a customer when establishing a business relationship.
   - Name of entity, nationality, legal status, etc.
   - Strict AML/CFT investigation may be necessary.
     - Additional proof of existence
     - Clear identification of business, etc.

2. Tax status: As a tax agent, a custodian may need to collect information of customers to file tax procedures.
   - Information of tax status such as non-resident or resident.
   - Nationality to apply a tax rate agreed by a double tax treaty.

Case studies

Information required for market entry in Indonesia

1. Investor Type (individual or institutional)
2. Name
3. Nationality
4. Legal domicile
5. Identity Number (i.e. Tax ID and/or personal ID for individual)
6. Date of Birth / Date of company establishment
7. Address
8. Type of Business (only for institution), please choose from the below categories:
   a. Corporate (CP)
   b. Foundation (FD)
   c. Financial institution - bank (IB)
   d. Financial institution - non bank (IB)
   e. Insurance (IS)
   f. Mutual Fund (MF)
   g. Pension Fund (PF)
   h. Securities company (SC)
   i. Others (OT), i.e. government entity or international organization

- ✓ Starting March 2018, financial institution clients are required to disclose the business principles, whether Sharia-based or conventional, when opening securities accounts.
- ✓ Starting December 2018, clients are required to provide the reference documents when creating SID to KSEI participants (local brokers or custodian banks).The reference documents are the basis of the data / information required to open SID. These documents will be administered by KSEI participants, which will be submitted to KSEI if required.

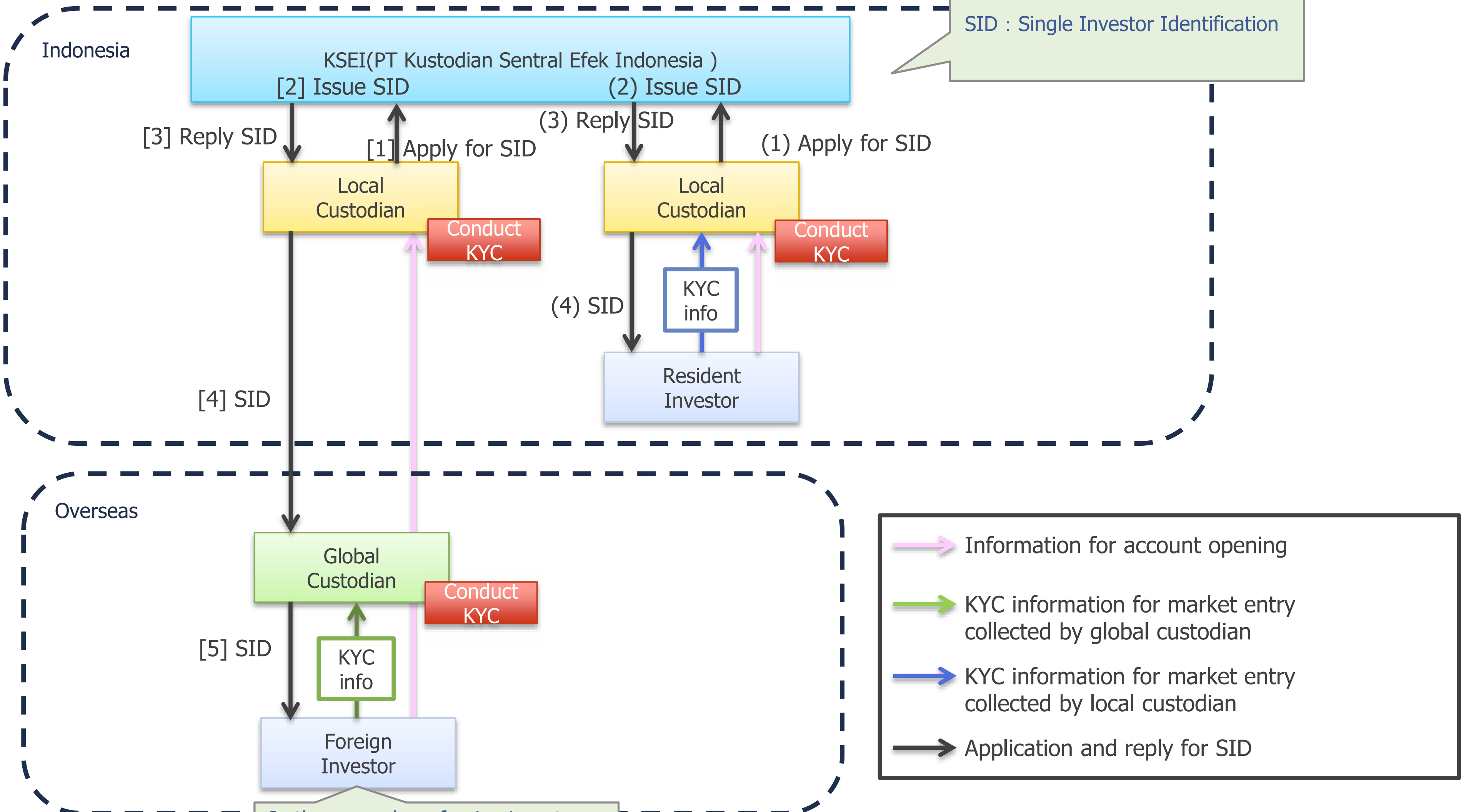
Account Structure of CSD in Indonesia

	CSD	Account Structure
Government Bond	BI (Bank Indonesia)	Omnibus
Corporate Bond	KSEI (Kustdian Sentral Efek Indonesia)	Omnibus

- The equities market is segregated at KSEI. Fixed income products are Omnibus at Bank Indonesia with KSEI for limited listed products.
- GC conducts KYC of Foreign Investor (FI) and obtains any additional information required for each local market / account opening requirement from the FI.
- The domestic investor provides KYC info to LC as part of local onboarding requirements.
- The DGT data is now maintained for a year from initial submission and gets renewed on an annual basis.
- The general flows of information are all different between Government debt and Corporate, different by trade venue (listed or trading platform) which results in different withholding agents and submission routes. For example a Transfer Agent of an issuer that could be a custodian directly submits the DGT to the Tax Office for certain trade types.

KYC information for account opening (Indonesia)

Ex: Investment in Indonesia

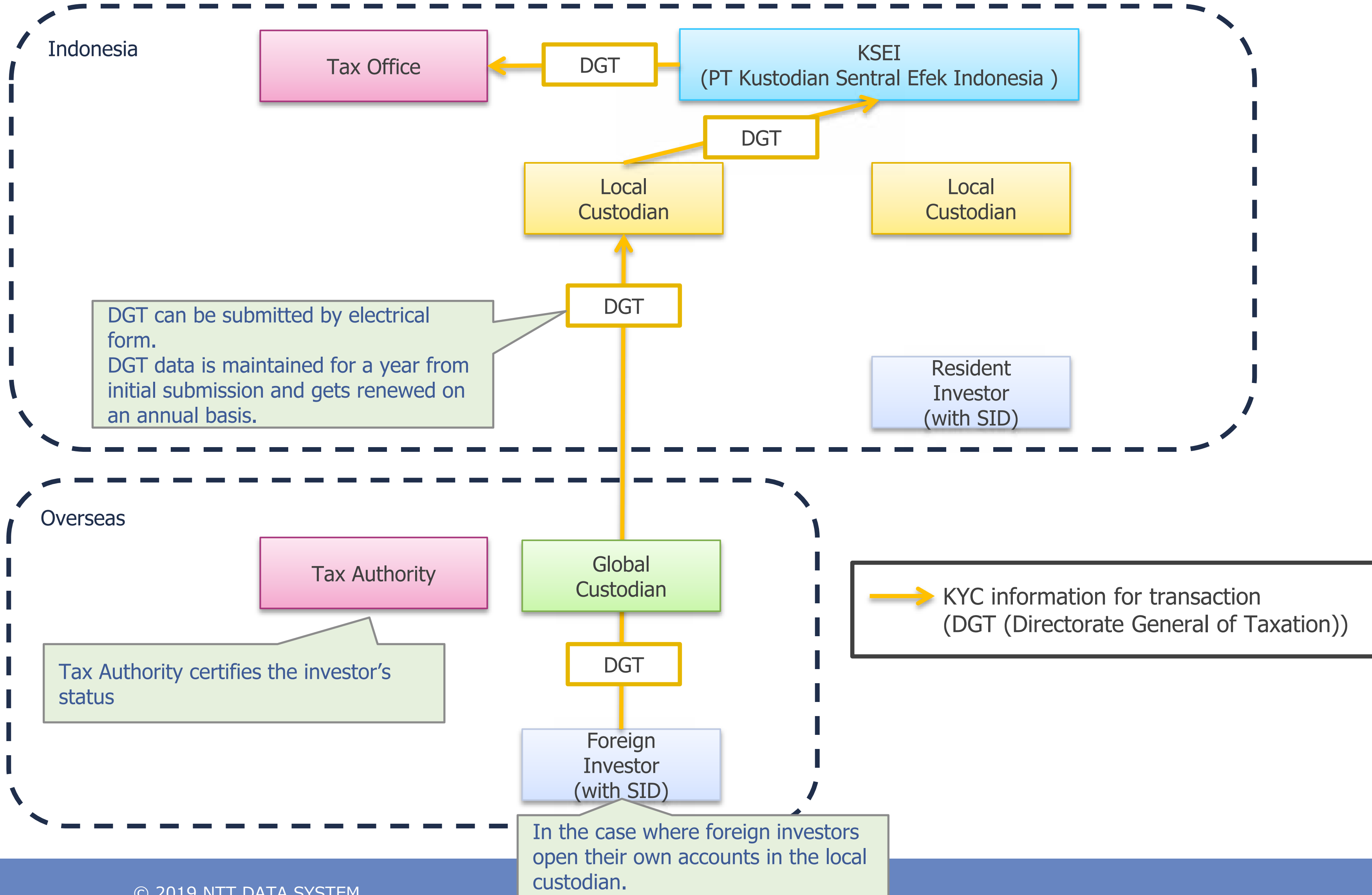


SID：Single Investor Identification

In the case where foreign investors open their own accounts in the local custodian.

KYC information for collecting tax (Indonesia)

Ex: Investment in Indonesia



Information required for market entry in the Philippines

- No specific requirement set by CSD or regulators

- Custodians will open custody accounts for their clients based on the respective banks' KYC documentary requirements and all other information required for account opening.

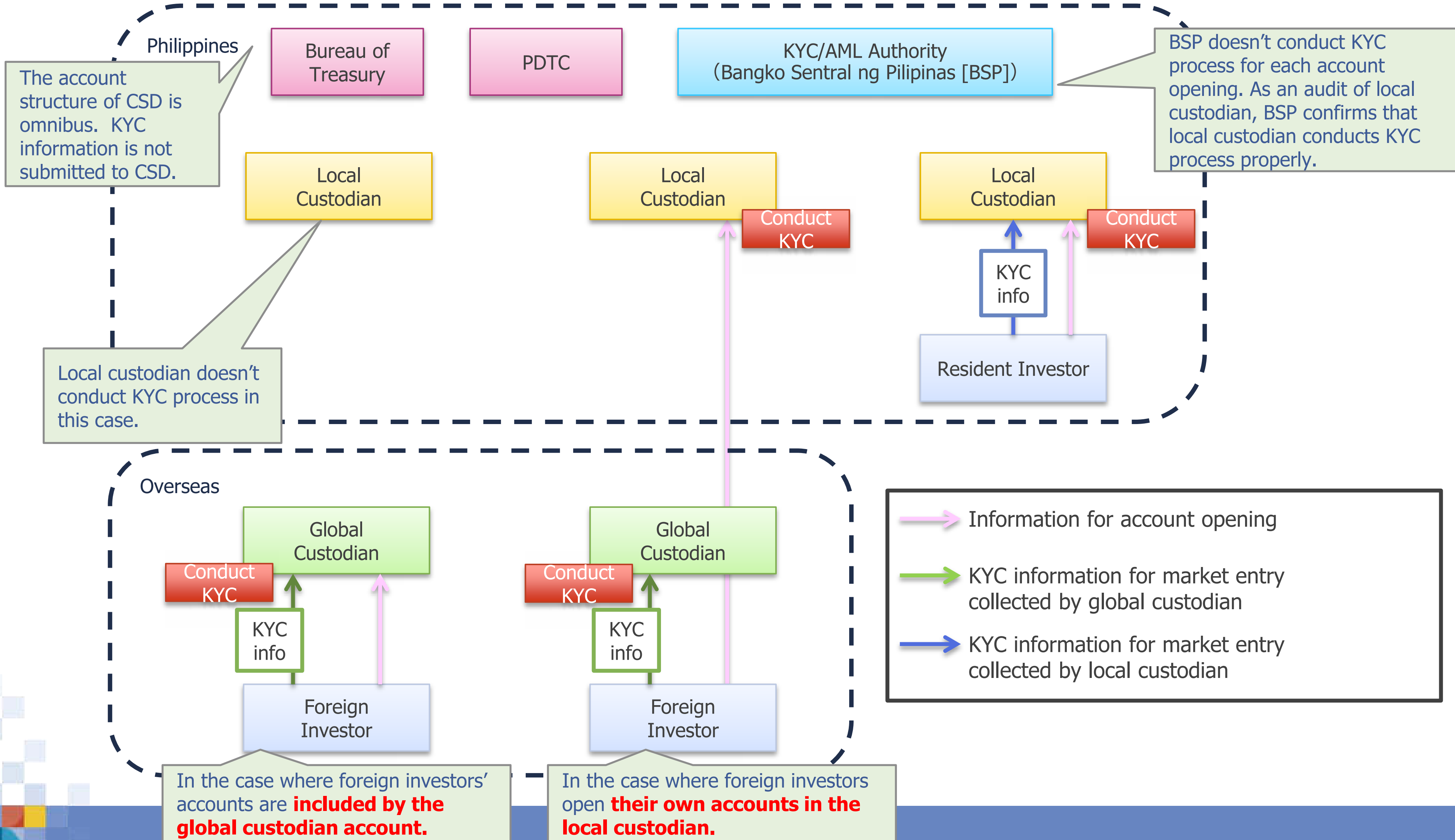
Account Structure of CSD in Philippines

	CSD	Account Structure
Government Bond	BTr (Bureau of Treasury)	Omnibus
Corporate Bond	PDTC (Philippine Depository & Trust Corp)	Omnibus

- The special account holding at the BTR when the Bureau of Internal Revenue gives a ruling for tax exemption where the yellow arrow could be directly from the Foreign Investor to BTR. Need to check with the local market.
- A large majority of foreign investors still do not apply for exemption as historically BTR did not support the application of tax documents and paying standard withholding tax in practice.

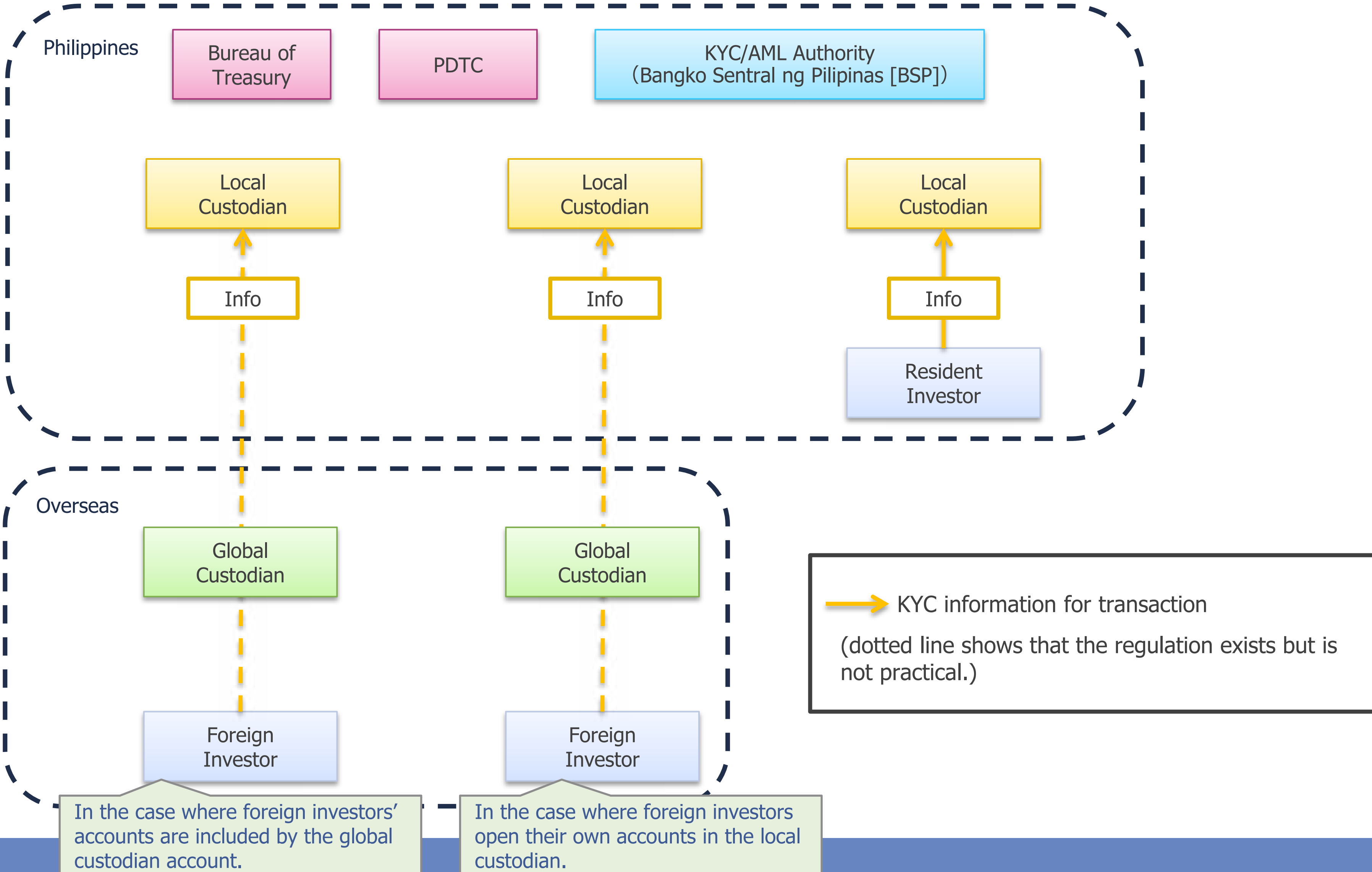
KYC information for account opening (Philippines)

Ex: Investment in Philippines



KYC information for collecting tax (Philippines)

Ex: Investment in Philippines



Information required for market entry in the People's Republic of China (PRC)

- No specific requirement set by CSD or regulator .
- Custodians will open custody accounts for their clients based on the respective banks' KYC documentary requirements and all other information required for account opening.

Account Structure of CSD in China

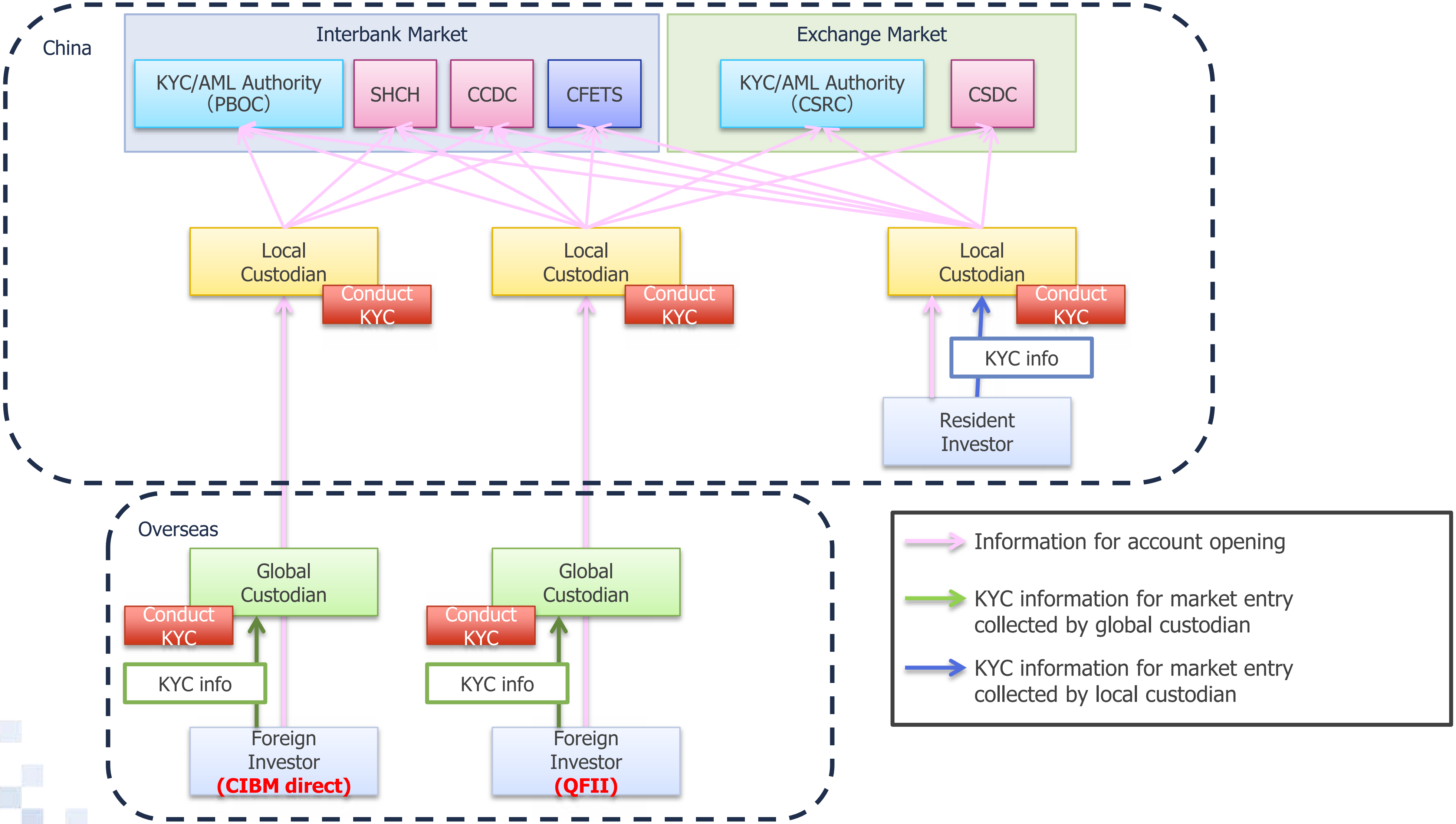
<CIBM direct / QFII>

	CSD	Account Structure
OTC Market	CCDC (Central Depository & Clearing Co., Ltd.) SHCH (Shanghai Clearing House)	Segregate
Exchange Market	CSDC (China Securities Depository and Clearing Corporation Limited)	Segregate

- Each Market Infrastructure and each local custodian have their own onboarding / KYC requirements where each and every one are different.
- The account structure where the FI opens an account in its own name at the LC which is mirrored at the CSD.
- GC conducts KYC of Foreign Investor (FI) and obtains any additional information required for each local market / account opening requirement from the FI.

KYC information for account opening (PRC)

Ex: Investment in China （CIBM direct, QFII, Domestic）



Account Structure of CSD in China (Bond Connect)

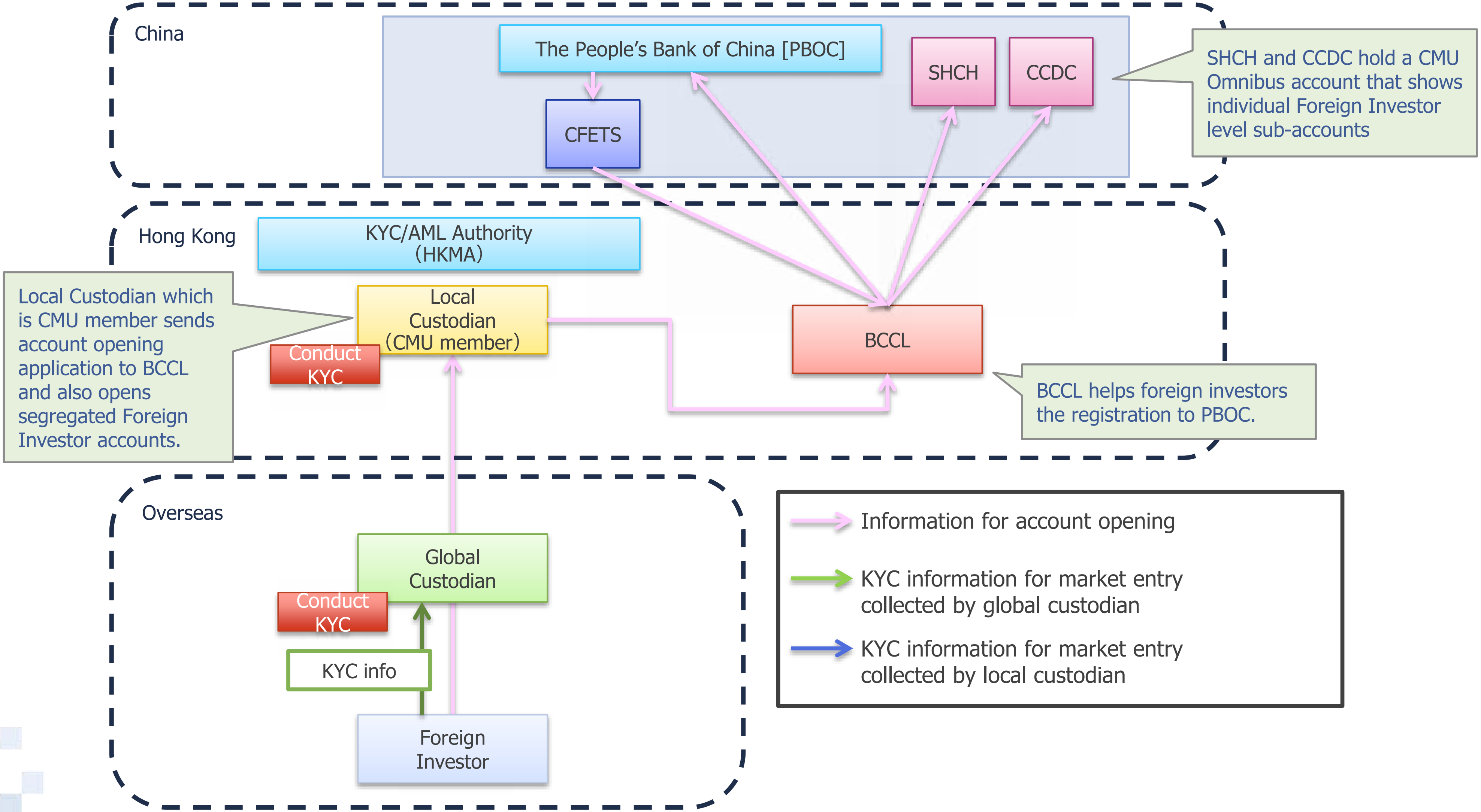
<Bond Connect>

CSD	Account Structure
CCDC (Central Depository & Clearing Co., Ltd.) SHCH (Shanghai Clearing House)	Segregate

- GC conducts KYC of Foreign Investor (FI) and obtains any additional information required for each local market / account opening requirement from the FI
- Even when the FI has segregated accounts in their own name with the LC, the KYC is still between LC and GC.
- Bond Connect is part of the CIBM and therefore Government Bonds are tax exempt.

KYC information for account opening (Bond Connect)

Ex: Investment in China (Bond Connect)



Information required for market entry in Japan

- There are no specific requirements set out by the CSD or regulator.
- Local custodians will open custody accounts for their clients (which are the GCs) based on the respective banks KYC documentary requirements as well as account opening requirements.

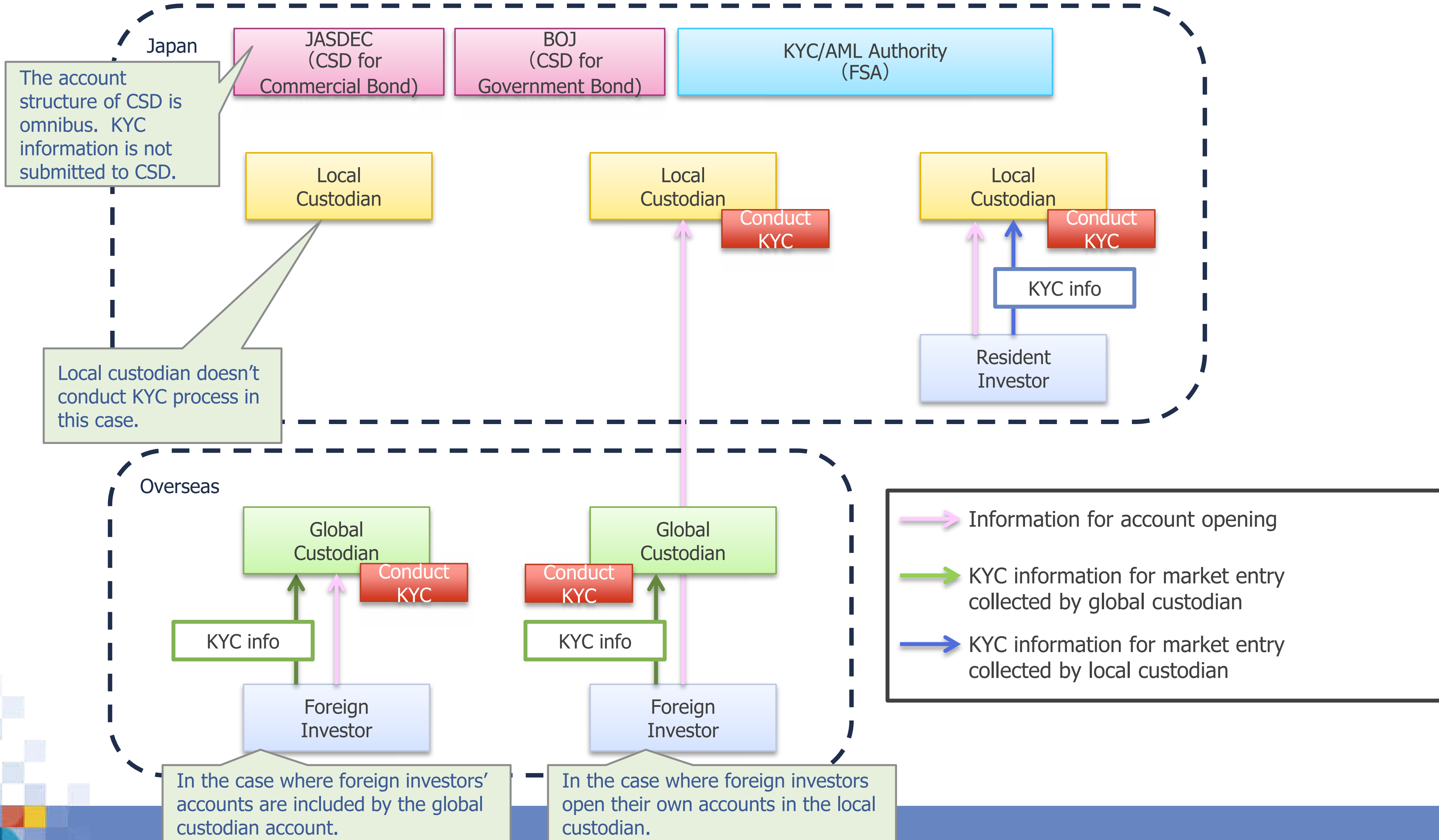
Account Structure of CSD in Japan

	CSD	Account Structure
Government Bond	BOJ (Bank of Japan)	Omnibus
Corporate Bond	JASDEC (Japan Securities Depository Center, Incorporated)	Omnibus

- Local Custodian can open accounts per client or per tax designated rates or per tax domicile.
- Even when the FI has segregated accounts in their own name with the LC, the KYC is still between LC and GC.
- Equities are omnibus.

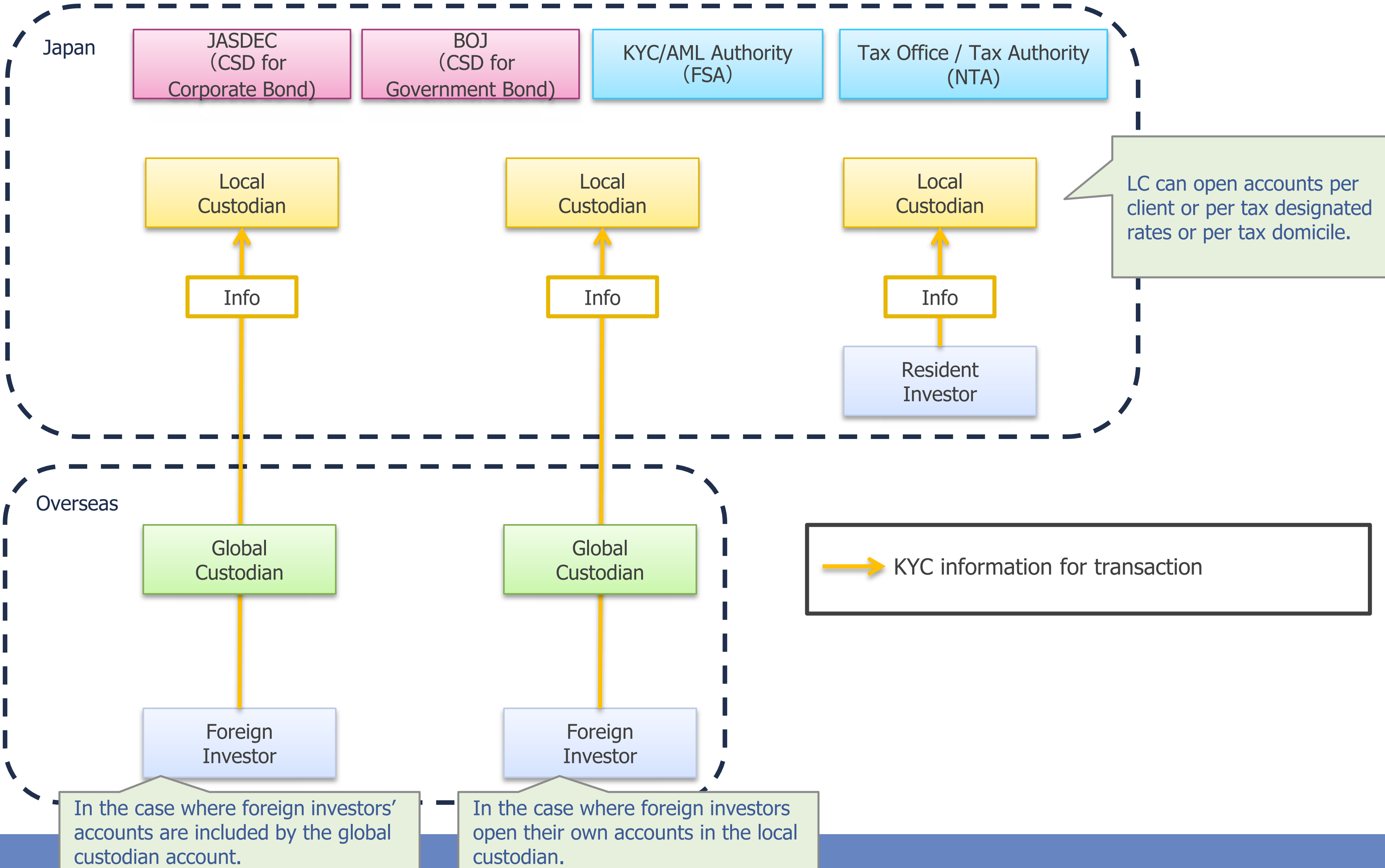
KYC information for account opening (Japan)

Ex: Investment in Japan



KYC information for collecting tax (Japan)

Ex: Investment in Japan



Information required for market entry in Thailand

- No specific requirement set by CSD or regulator .

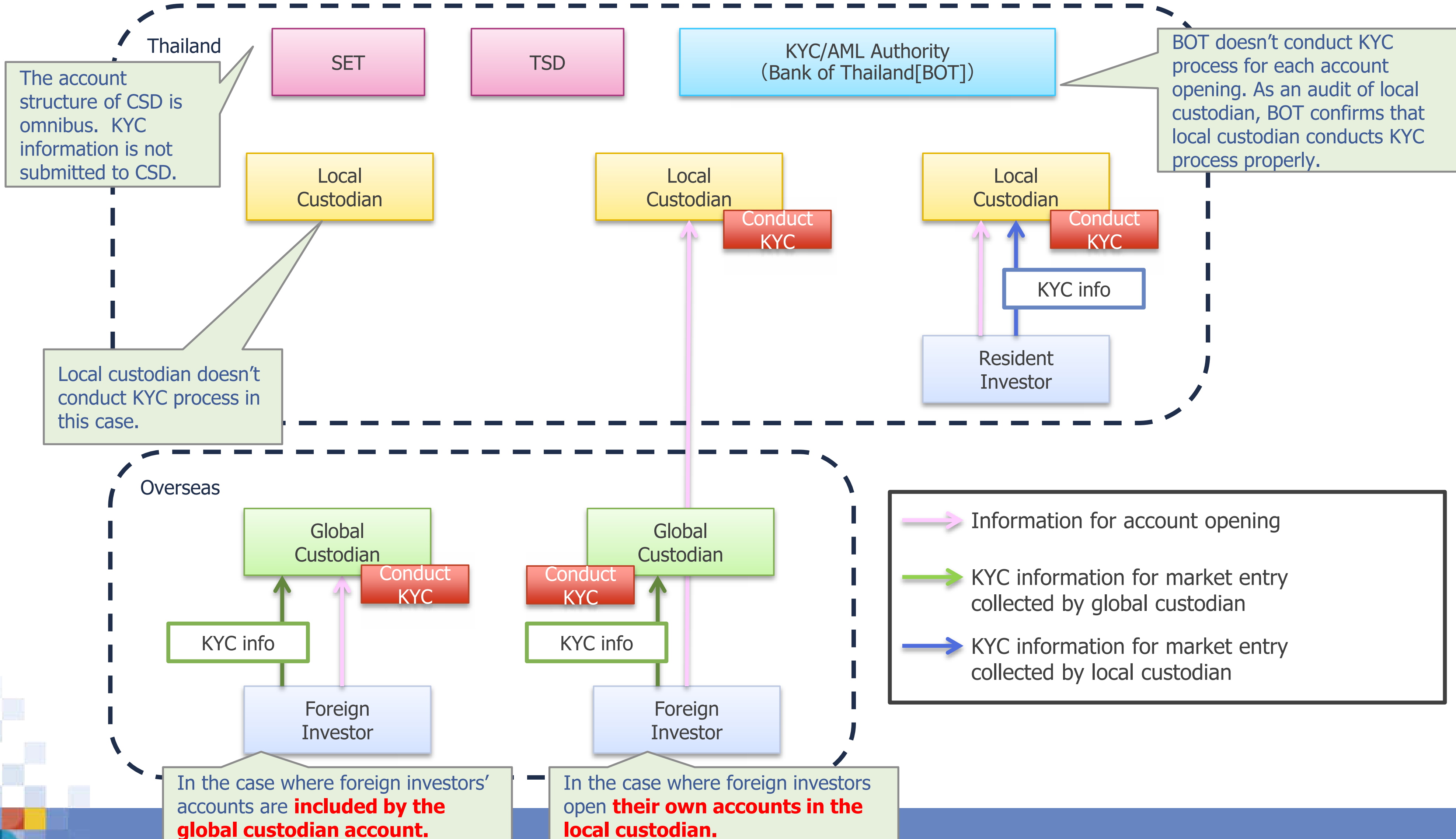
- Custodians will open custody accounts for their clients based on the respective banks' KYC documentary requirements and all other information required for account opening.

Account Structure of CSD in Thailand

	CSD	Account Structure
Government Bond	TSD (Thailand Securities Depository)	Omnibus
Corporate Bond	TSD (Thailand Securities Depository)	Omnibus

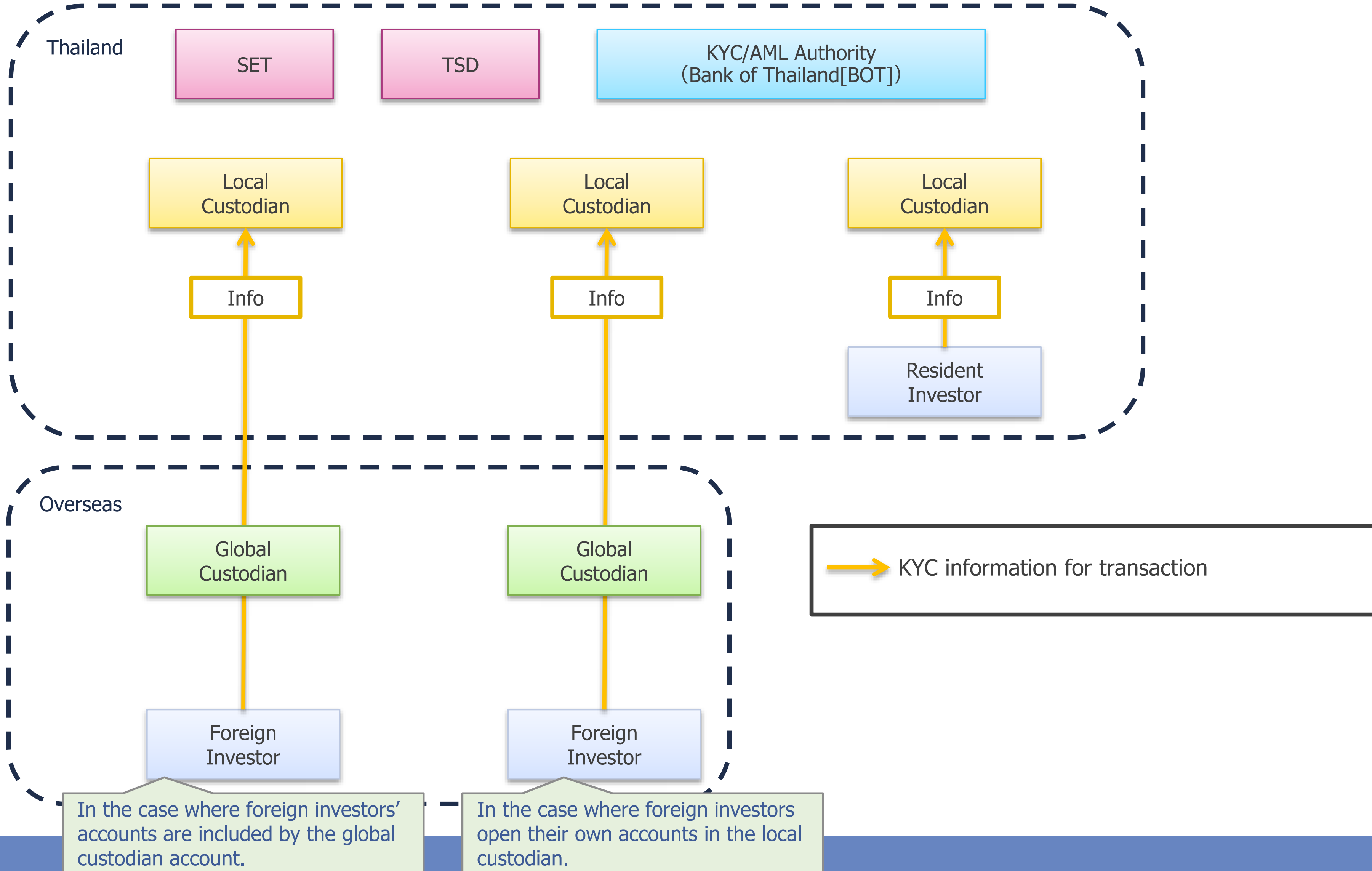
KYC information for account opening (Thailand)

Ex: Investment in Thailand



KYC information for collecting tax (Thailand)

Ex: Investment in Thailand



Information required for market entry in Malaysia

- (a) Beneficial owner name that corresponds to the LEI name
- (b) LEI number
- (c) Domicile
- (d) Investor type (based on types prescribed by the Central Bank)

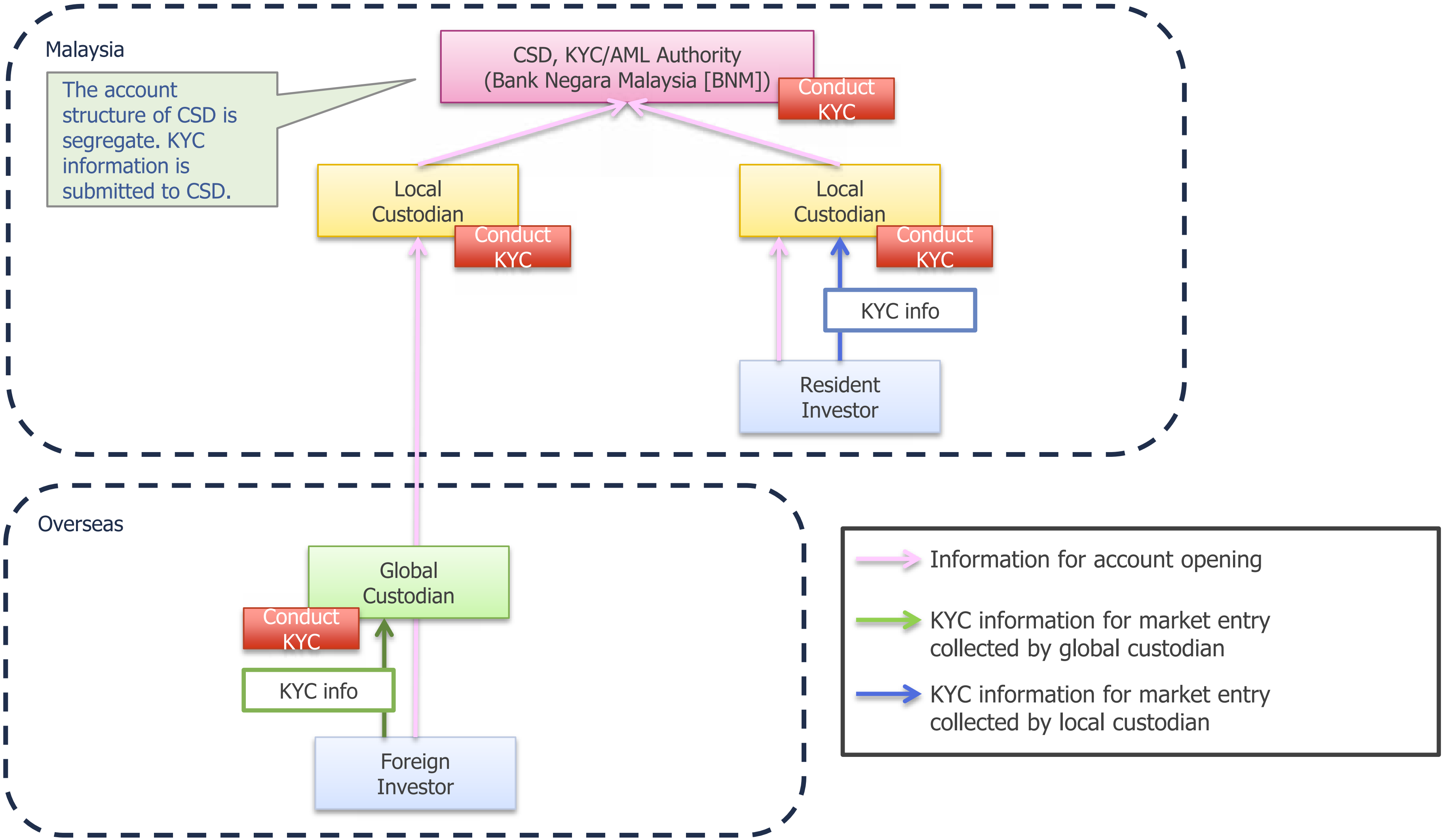
- Above information is submitted online via PayNet (CSD) system

Account Structure of CSD in Malaysia

	CSD	Account Structure
Government Bond	BNM (Bank Negara Malaysia)	Segregate
Corporate Bond	BNM (Bank Negara Malaysia)	Segregate

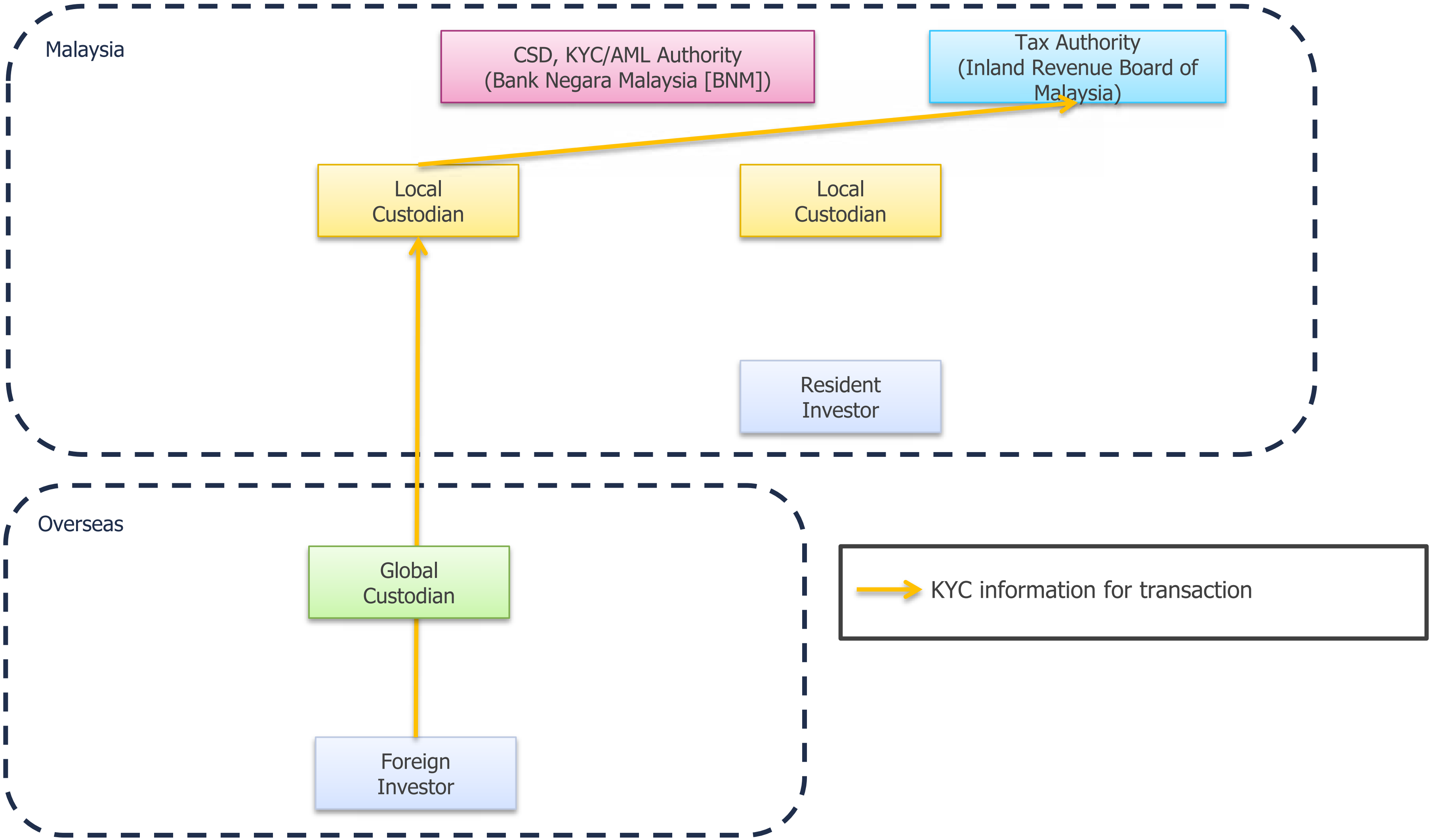
KYC information for account opening (Malaysia)

Ex: Investment in Malaysia



KYC information for collecting tax (Malaysia)

Ex: Investment in Malaysia



Information required for market entry in Singapore

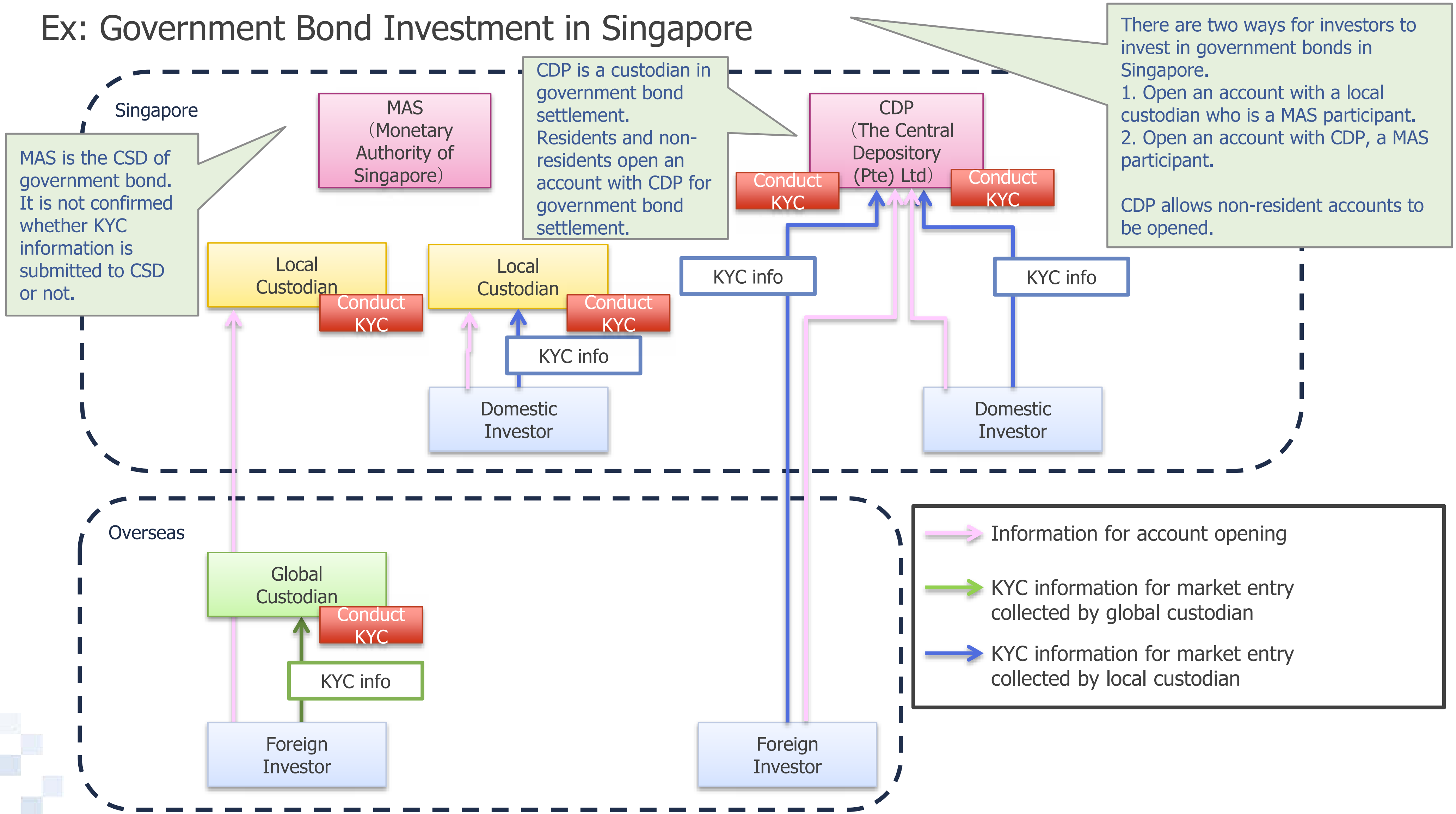
- CDP account opening form
  - Nationality
  - Category code
    - INDIVIDUAL
    - JOINT
    - STOCK BROKER.EXCLUDE SGX-ST MEMBER
    - NOMINEES
    - CORPORATE
    - TRUSTEES…
  - Corporation code
    - FULL LICENSED BANK
    - MERCHANT/OFFSHORE/RESTRICTED BANK
    - STATUTORY BOARD
    - INSURANCE COMPANY
    - FINANCE COMPANY
    - UNIT TRUST/INVESTMENT TRUST
    - PENSION FUND…
  - Residence code
    - Malaysian
    - Hong Kong, China
    - Japan
    - UK
    - Europe
    - US…

Account Structure of CSD in Singapore

	CSD	Account Structure
Government Bond	MAS (Monetary Authority of Singapore)	Omnibus
Corporate Bond	CDP (The Central Depository (Pte) Ltd)	Segregate/ Omnibus

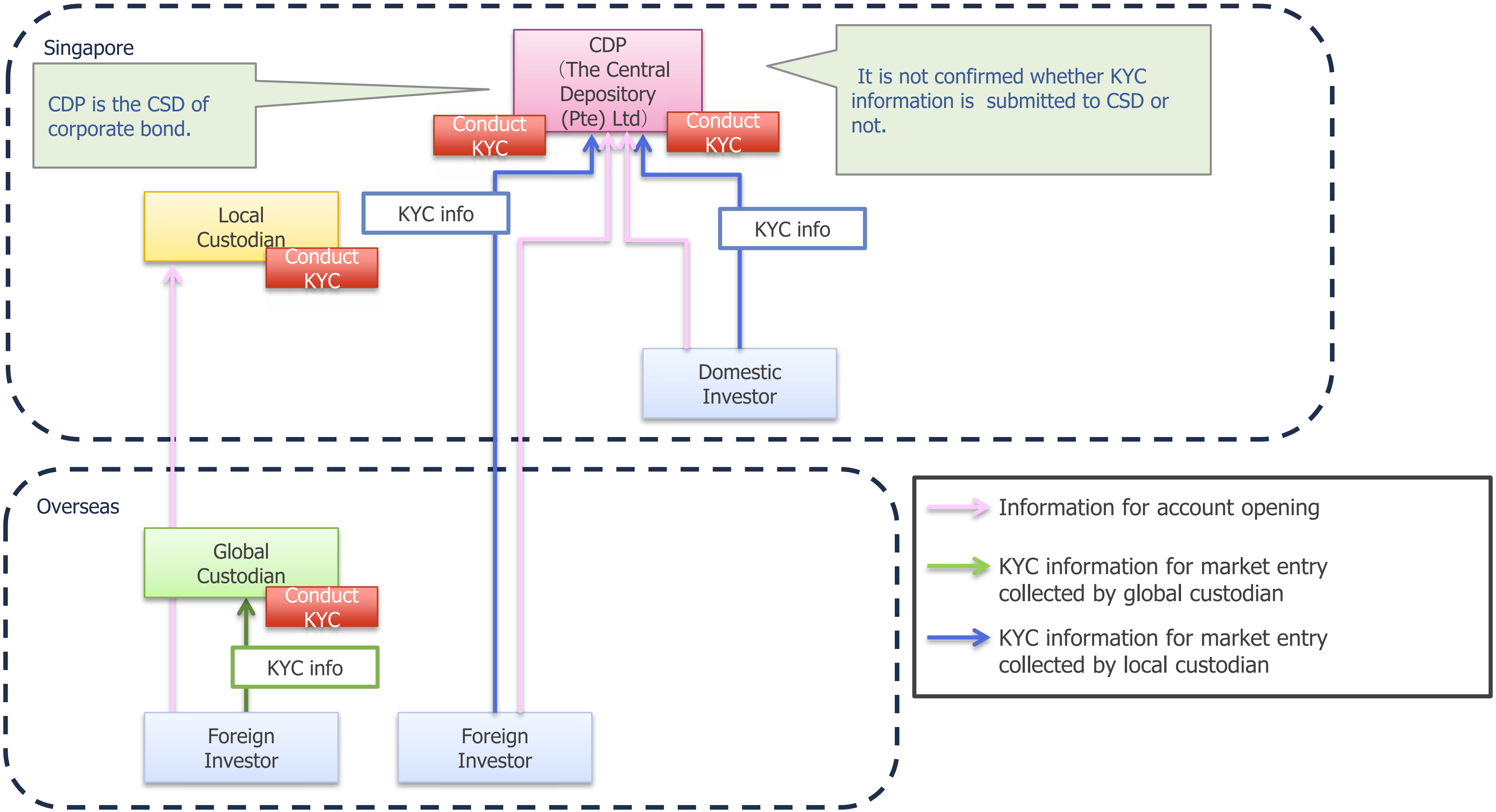
KYC information for account opening (Singapore)

Ex: Government Bond Investment in Singapore



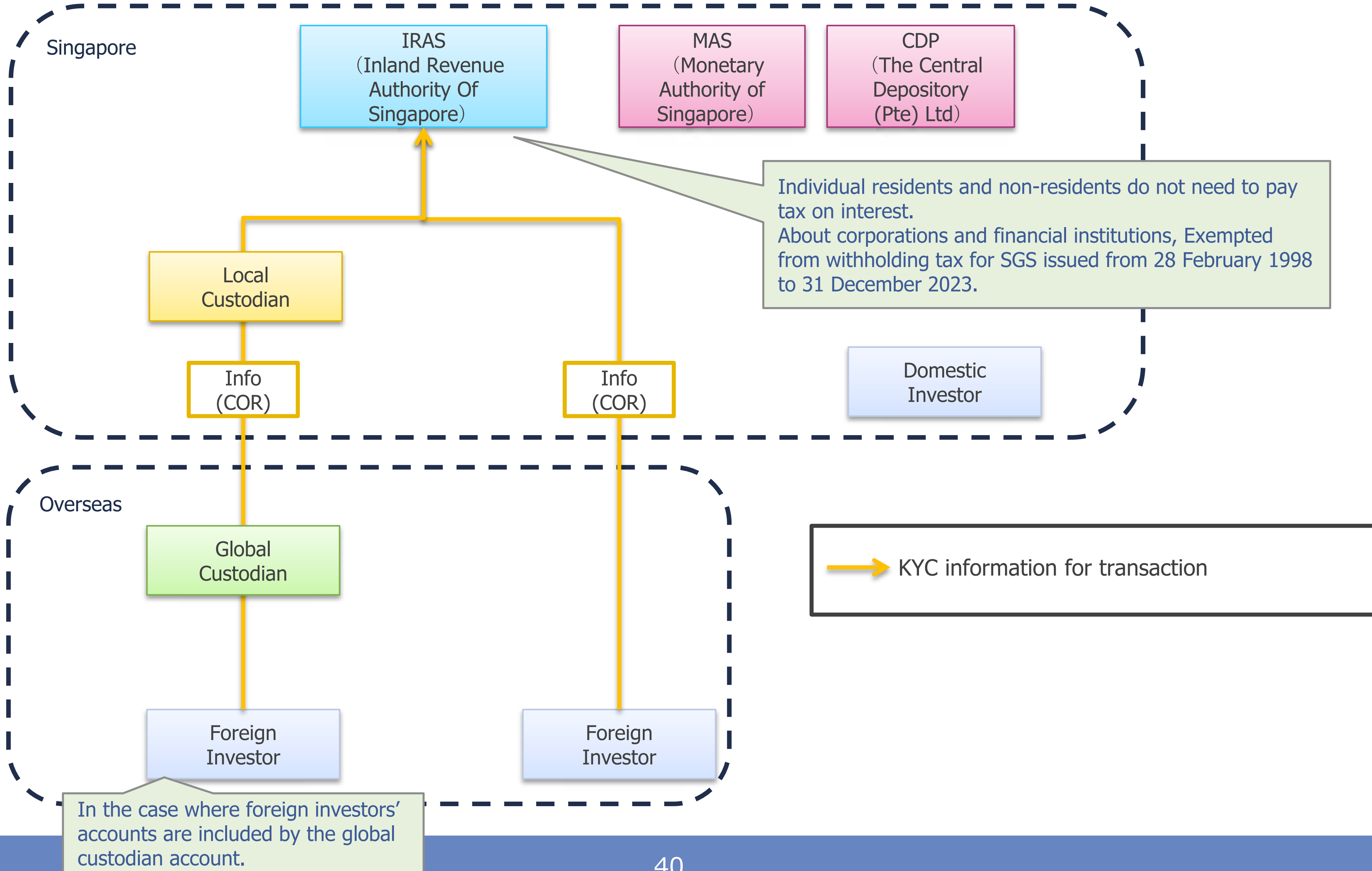
KYC information for account opening (Singapore)

Ex: Corporate Bond Investment in Singapore



KYC information for collecting tax (Singapore)

Ex: Investment in Singapore



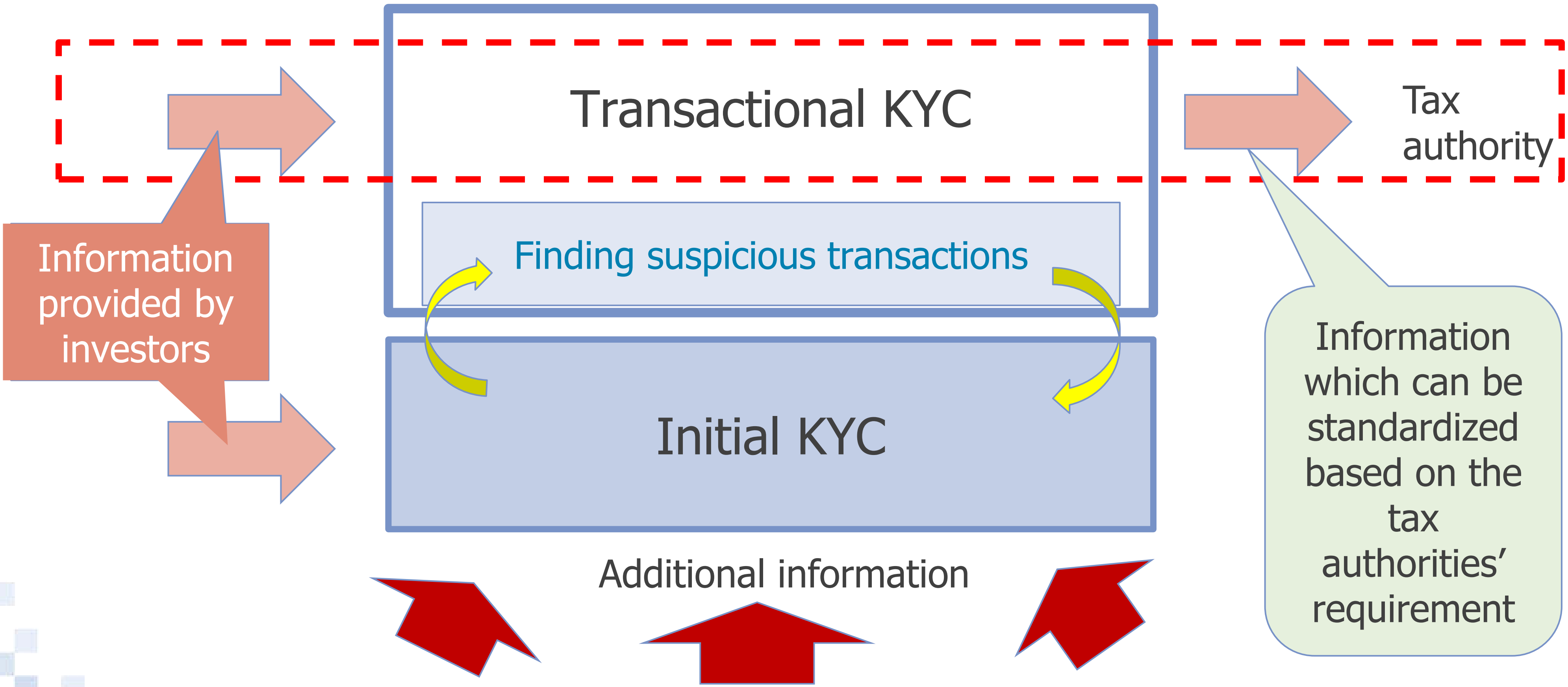
Key findings and preliminary recommendation

Key findings from the study

- In ASEAN+3, account structures are categorized in three ways:
    - omnibus account
    - segregated account
    - omnibus with single investors ID
- Financial institutions must check a customer when establishing a business relationship.
    - Required KYC information can differ from one institution to another.
    - There may be 1) local KYC requirements of the market receiving investments; 2) global custodian's requirements; and 3) requirements of the market where investors are located.
    - What information can satisfy regulatory KYC may not easily be to defined.
- As a withholding agent and tax agent, custodians need to collect information of customers to file tax procedures.
- Comparing to the onboarding KYC, information collected for taxation may be clearer but repetitive.

Recommendation: Standardization of KYC

- Based on the flows of information to fulfill the requirement of KYC, there are two types of KYC: initial KYC and transactional KYC.



Recommendation: Standardization of KYC data elements

Basic data elements for taxation

1. individual or non-individual (entity)
2. Name
3. Nationality / Legal domicile
4. Identity Number (i.e. Tax ID and/or personal ID for individual)
5. Date of Birth / Date of company establishment
6. Address
7. Type of Business (only for institution)
    a. Corporate (CP)
    b. Foundation (FD)
    c. Financial institution - bank (IB)
    d. Financial institution - non bank (IB)
    e. Insurance (IS)
    f. Mutual Fund (MF)
    g. Pension Fund (PF)
    h. Securities company (SC)
    i. Others (OT), i.e. government entity or international organization

Recommendation: Use of LEI for transactional KYC

Basic data elements for taxation

1. individual or non-individual (entity)
2. Name
3. Nationality / Legal domicile
4. Identity Number (i.e. Tax ID and/or personal ID for individual)
5. Date of Birth / Date of company establishment
6. Address
7. Type of Business (only for institution)
    a. Corporate (CP)
    b. Foundation (FD)
    c. Financial institution - bank (IB)
    d. Financial institution - non bank (IB)
    e. Insurance (IS)
    f. Mutual Fund (MF)
    g. Pension Fund (PF)
    h. Securities company (SC)
    i. Others (OT), i.e. government entity or international organization

LEI can provide the information in red.
LEI can cover most of investors

Entities with LEI

Entities without LEI

Individual investors

What is LEI?

ISO 17442 Legal Entity Identifier

The term "legal entities" includes, but is not limited to, unique parties that are legally or financially responsible for the performance of financial transactions or have the legal right in their jurisdiction to enter independently into legal contracts, regardless of whether they are incorporated or constituted in some other way (e.g. trust, partnership, contractual). It excludes natural persons, but includes governmental organizations and supranationals.

4 digit LOU prefix + 00 + 12 characters of alphanumeric code plus 2 check digits

1354+00+WSQFAUVO9Q8Z+CD

- A LEI code does not contain embedded intelligence, but the information of the entity can be accessed from the Global LEI Foundation website.
- LEI is freely available.
- To acquire an LEI, an entity need to pay an annual fee (a few hundred USD), of which payment provides a proof of existence.

AMBIF and KYC

ASEAN+3 Multi-Currency Bond Issuance Framework

- Professional investors only bond market
- Professionals are normally composed of financial institutions such as banks, securities companies, insurance companies, pension funds, trust funds, mutual finds, and HNWI.

Beneficial owner refers to the **natural person**(s) who ultimately owns or controls a customer and/or the natural person on whose behalf a transaction is being conducted.

Linkage with CRS

Common Reporting Standard User Guide and XML Schema

Part of the technical solution to support the implementation of the CRS is a schema in extensible mark-up language (XML) that allows the reporting of information under the CRS in an IT-based and standardised manner.

A schema is a data structure for holding and transmitting information electronically and in bulk. XML is commonly used for this purpose. Examples are the OECD's Standard Transmission Format "STF" or the Fisc 153 format used for information exchange for the European Savings Directive.

ISO 20022 and CRS

New ISO 20022 messages, compliant with agreed market practice, will be live on SWIFT as of November 2021. After a period of four years of coexistence, the corresponding legacy SWIFT MT messages will be decommissioned on the SWIFT platform.

Next steps

Steps towards standardization

2019-2020

- Complete the study to identify the information flows of KYC procedures in the rest of the ASEAN+3 markets.
- Promotion of LEI to create more awareness among stakeholders such as financial institutions, financial regulators, and tax authorities in ASEAN+3.
- Discussion with MOFs and tax authorities
- Proposal of transactional KYC data elements template.

2021

- Development of ISO 20022 transactional KYC data model
- ISO 20022 business justification proposal
- Implementation of LEI where possible.
- Discussion to standardize initial KYC data elements

2022 -

- Implementation of transactional KYC template.
- Implementation of the new ISO 20022 message where possible.
- Proposal of initial KYC data elements template

Stylized image of tri-party repo transactions and cross-border collateral in ASEAN+3

Satoru (Tomo) Yamadera, ADB

ASEAN +3 Bond Market Forum

17-18 October 2019 in Shenzhen, PRC

Why CBCR market for ASEAN+3?

Because

- Increase in cross-border banking in the region.
    - Qualified ASEAN Bank (QAB)
- Development of local currency bond markets, comparable to the developed markets.
- Increase in collateral demand under tightened regulation.

However,

- Most cross-border collateral and repo transactions are booked in USD or against US Treasuries (UST).
- Shortage of UST and USD creates vulnerability in the ASEAN+3 markets, although we have large asset pool.

ADB

Objective of the Session

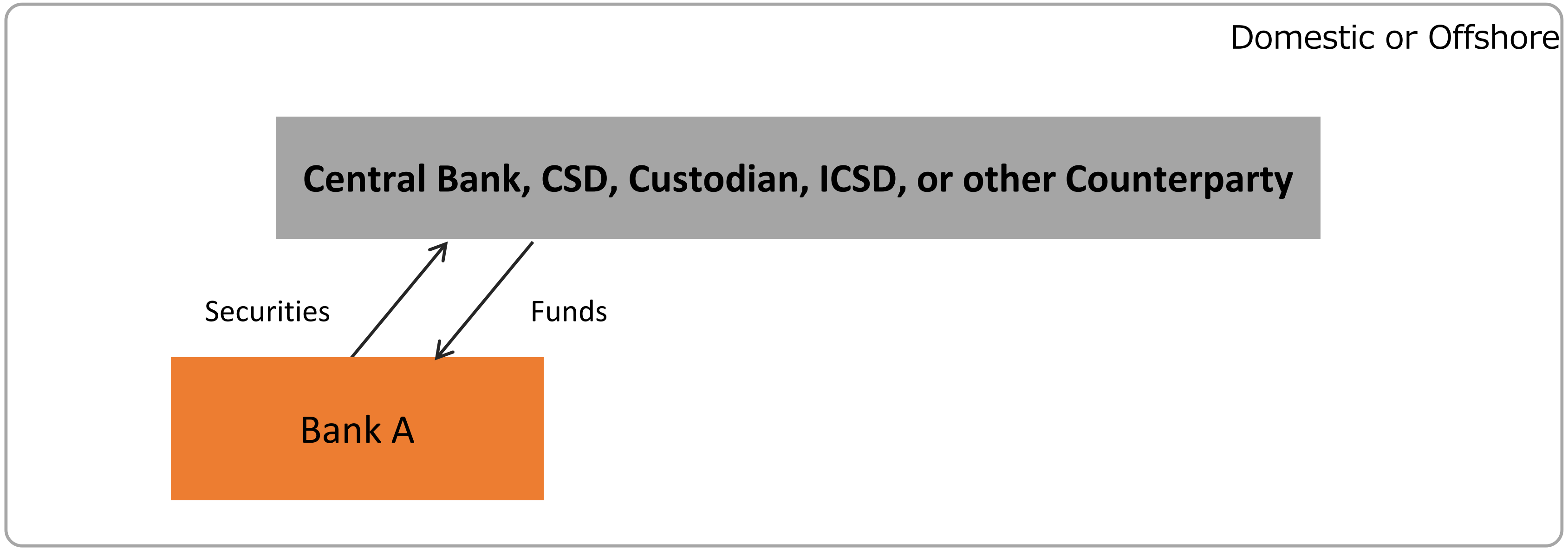
- Cross-border transactions are mostly done by internationally active banks which have large operations in USD/UST.
- Difficulty in accepting different legal framework(s) and market practices seems to be the biggest hurdle for a common CBCR approach to be created in the region.
- To promote cross-border transactions, it is important to understand the current market transactions.

Case 1: Image of traditional repo

- Bank A deposits securities with counterparty (CP) as collateral.
- By providing the collateral to the CP, Bank A can receive funds in same or different jurisdiction, or also offshore.

Assumptions include

- Securities can be deposited with respective counterparty, or in a central depository.
- Funds provided can be disbursed and used in domestic market, another market, or offshore.

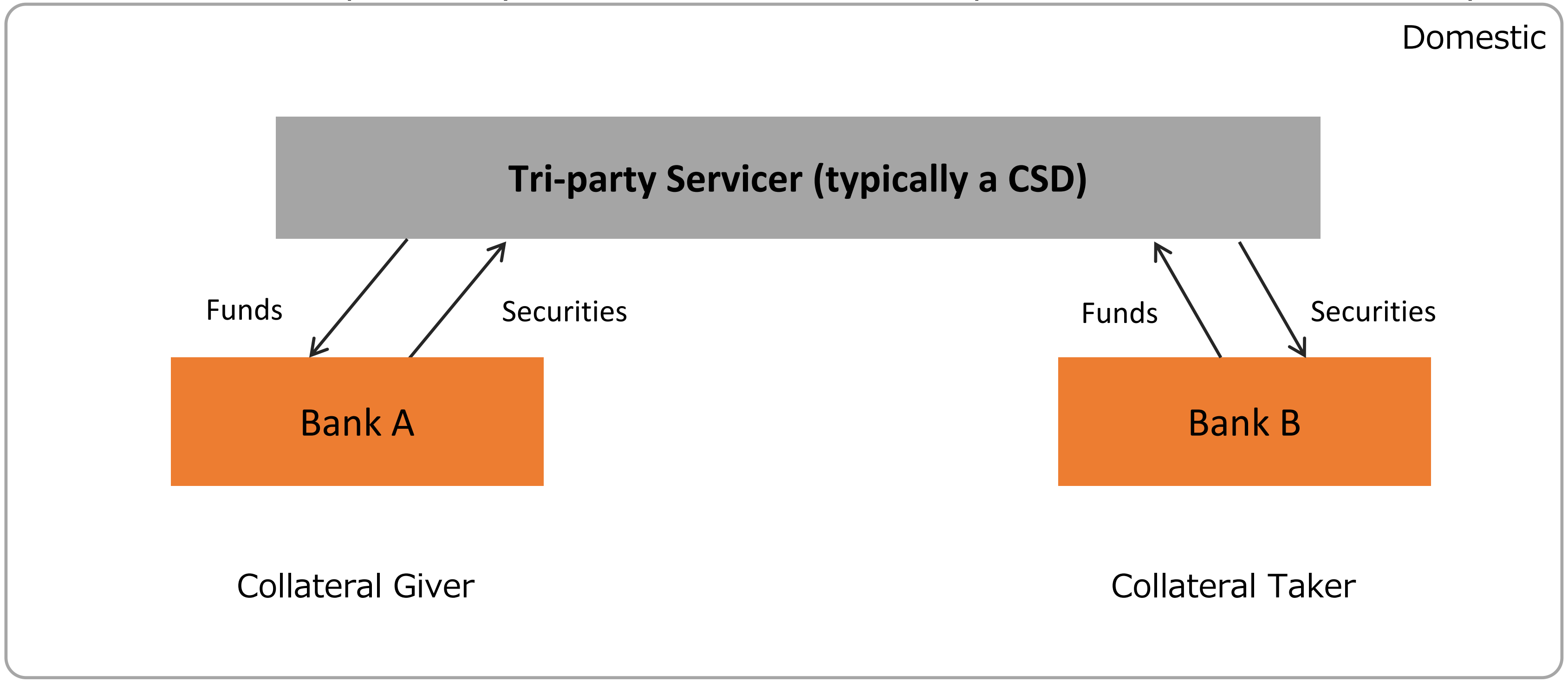


Case 2: Image of tri-party repo in domestic market

- Bank A makes available its securities to servicer, becomes collateral giver or provider.
- Bank B is looking for available (general or specific) collateral, being the collateral taker or receiver.
- Central service provider helps 2 counterparties transact, which now involves 3 parties => tri-party.

Assumptions include

- Securities available as collateral are deposited with central provider, and match collateral receiver requirements.
- Funds or other collateral posted by collateral receiver are deposited with or accessible by central provider.

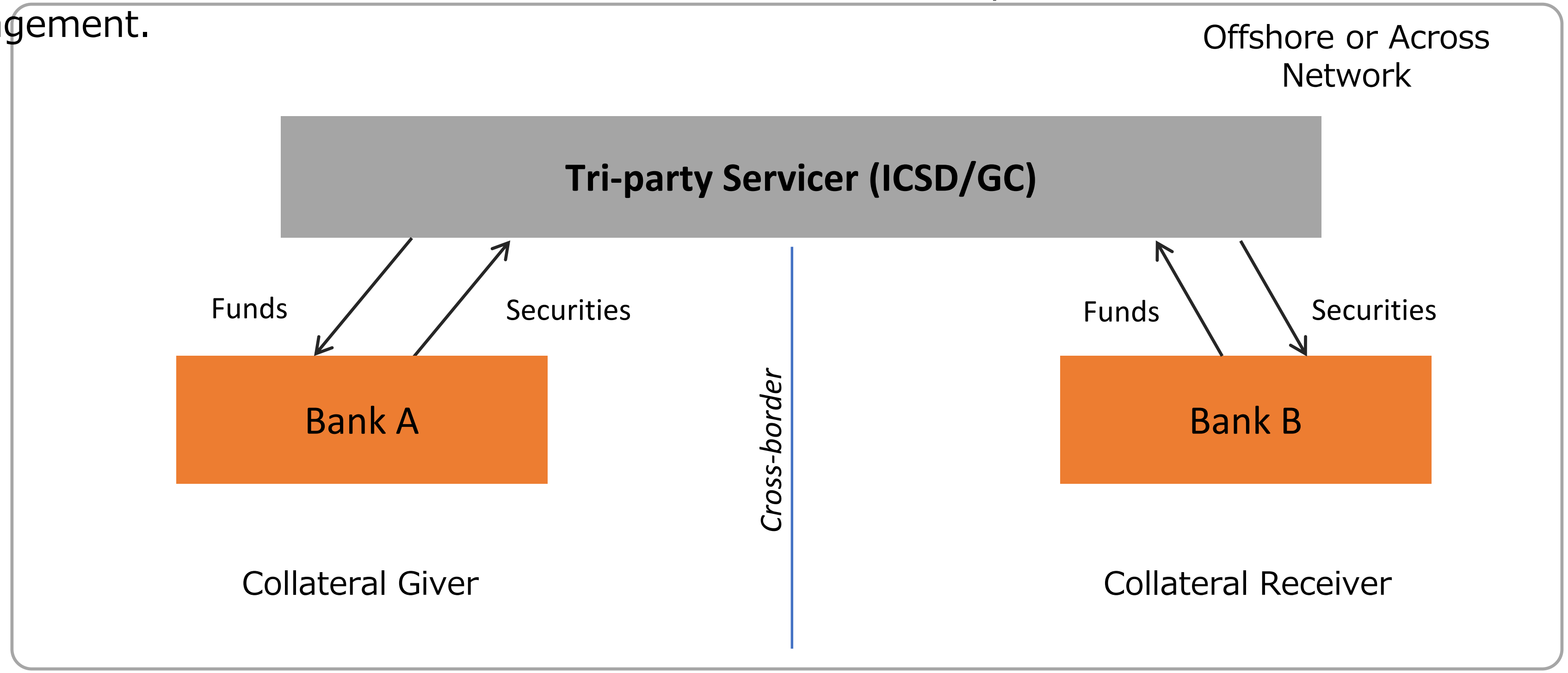


Case 3: Image of tri-party repo by ICSD/Global Custodian

- Bank A makes available its securities to ICSD/GC, becomes collateral giver or provider.
- Bank B is looking for available (general or specific) collateral, being the collateral taker or receiver.
- ISCD/GC facilitates counterparties' transactions on its platform or network, including cross-border.

Assumptions include

- All counterparties must have a relationship with ICSD/GC, give or receive designated securities; conditions apply.
- Securities and funds must be accessible to ICSD/GC on their platform or network for collateral management.

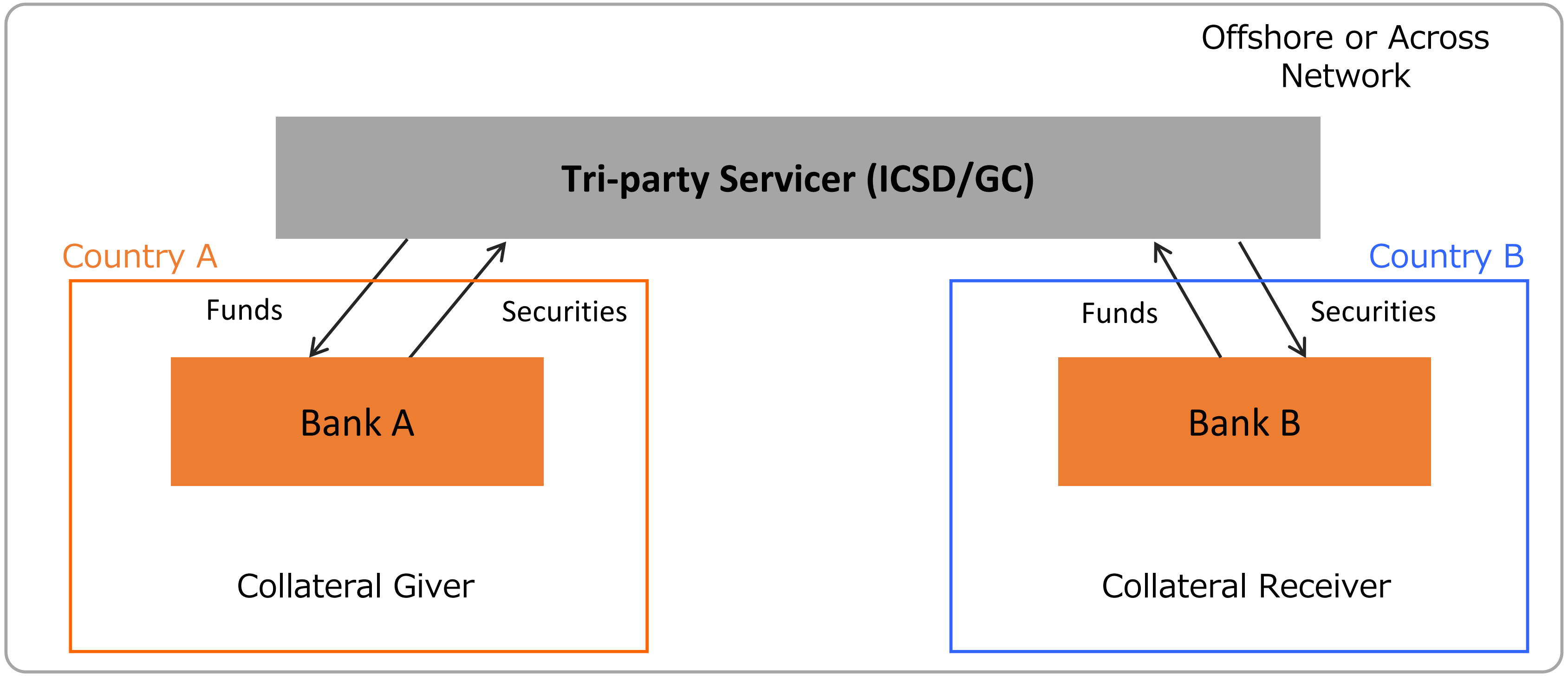


Case 4: Use of tri-party repo: different counterparties

- Bank A can be domiciled anywhere, but willing to transact repo on specific platform/network.
- Bank B can be domiciled anywhere, but willing to transact repo on specific platform/network.
- Counterparties do NOT (need to) know each other; ISCD/GC facilitates transactions.

Assumptions include

- All counterparties need to be participants of specific platform or network.
- Tri-party provider ensures adequate securities and fund flows, adequate collateral and margining, regardless of domicile.



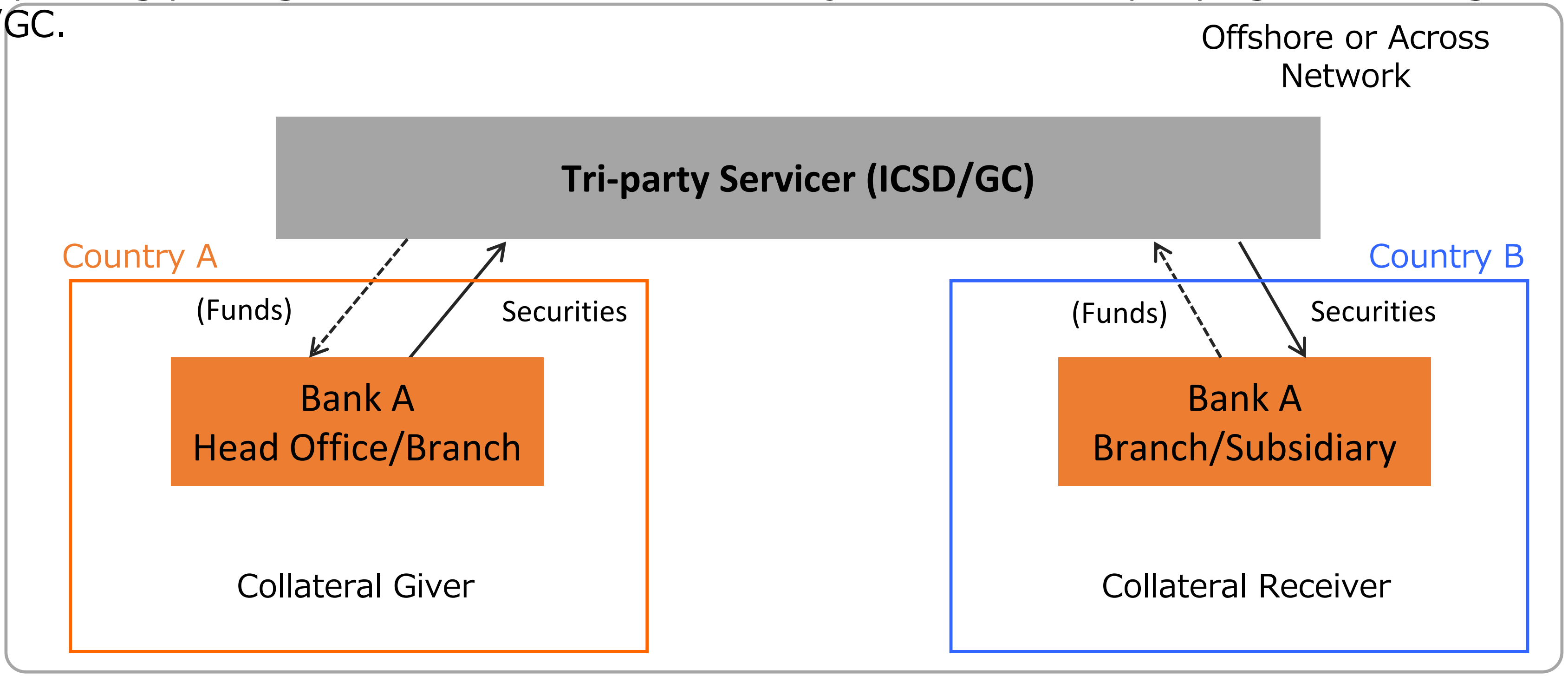
ADB

Case 5: Use of tri-party repo: 1 institution, different entities

- Bank A/Head Office makes available its securities for collateral to branch or subsidiary elsewhere.
- Bank A/branch or subsidiary draws on collateral for, e.g., its need to obtain funding at domicile.
- Cross-border collateral movement booked through ISCD/GC platform or network.

Assumptions include

- Bank A, Head Office and branches/entities must have a relationship with ICSD/GC, using single or several accounts.
- Corresponding posting of funds or fees could be subject to inter-company agreement, agreement with ICSD/GC.

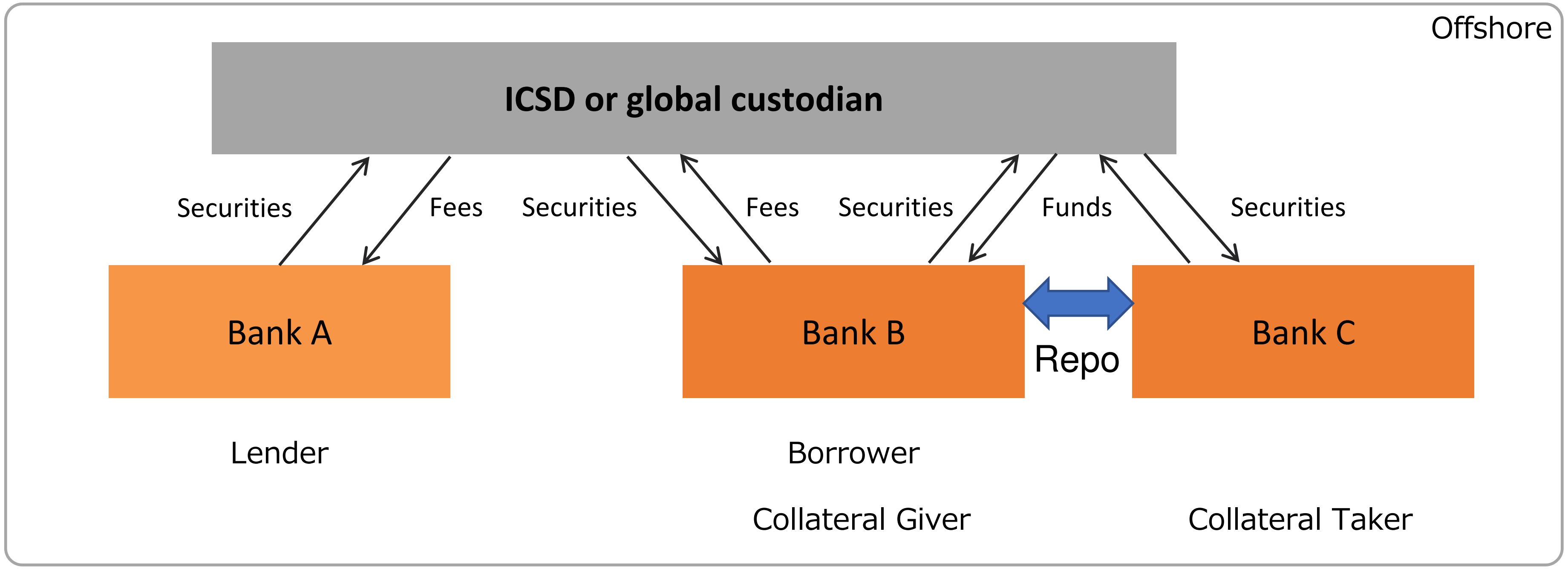


Case 6: Use of tri-party repo: combine with SecLending

- Bank A lends securities to ICSD/GC while Bank B borrows securities from ICSD/GC.
- Bank B uses the borrowed securities to transact a repo with Bank C.
- Securities borrowing leg acquires suitable collateral to support repo transaction.

Assumptions include

- Bank A, Bank B and Bank C need to maintain accounts with ICSD/GC; domicile not specifically relevant.
- Potential case for obtaining funding (by Bank B) in other than home or typical currency.
- Recourse or return practices for securities lending in line with similar practices for repo, since same platform.

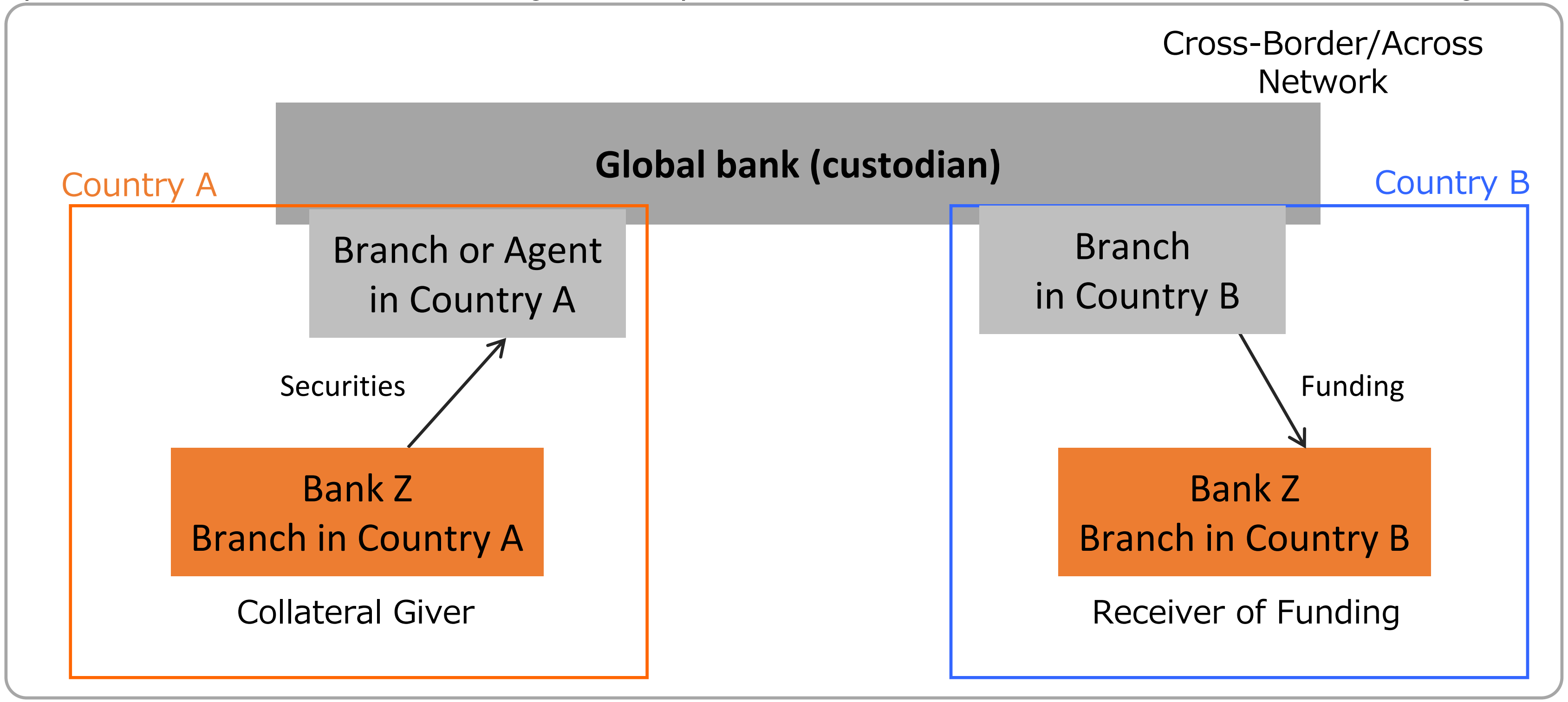


Case 7: Use of repo: credit from global bank (custodian)

- Global bank (custodian)'s branch in Country B provides funding to Bank Z's branch in Country B, on the basis of collateral provided by Bank Z's branch to Global bank's branch or agent in Country A.

Assumptions include

- Both Global bank and Bank Z have branches or subsidiaries in both countries; Global bank (if a GC) may have an agent in Country A as part of its network to receive the securities as collateral.
- Though provision of securities and funding are 2 separate transactions, Bank Z and Global bank can agree to consider them as one.



Case 8: Use of tri-party repo via global bank (custodian)

- Global bank (custodian) provides tri-party repo services through its network (branches or agents).
- Global bank (custodian) will transfer funds in Country B in exchange for securities received in

Assumptions include

- Global bank (custodian) to have access to each market in which securities may be provided as collateral and funds are paid.
- Global bank (custodian) can provide custody services for or in each market.
- Markets in which Global bank (custodian) provides service must allow FOP transfers.

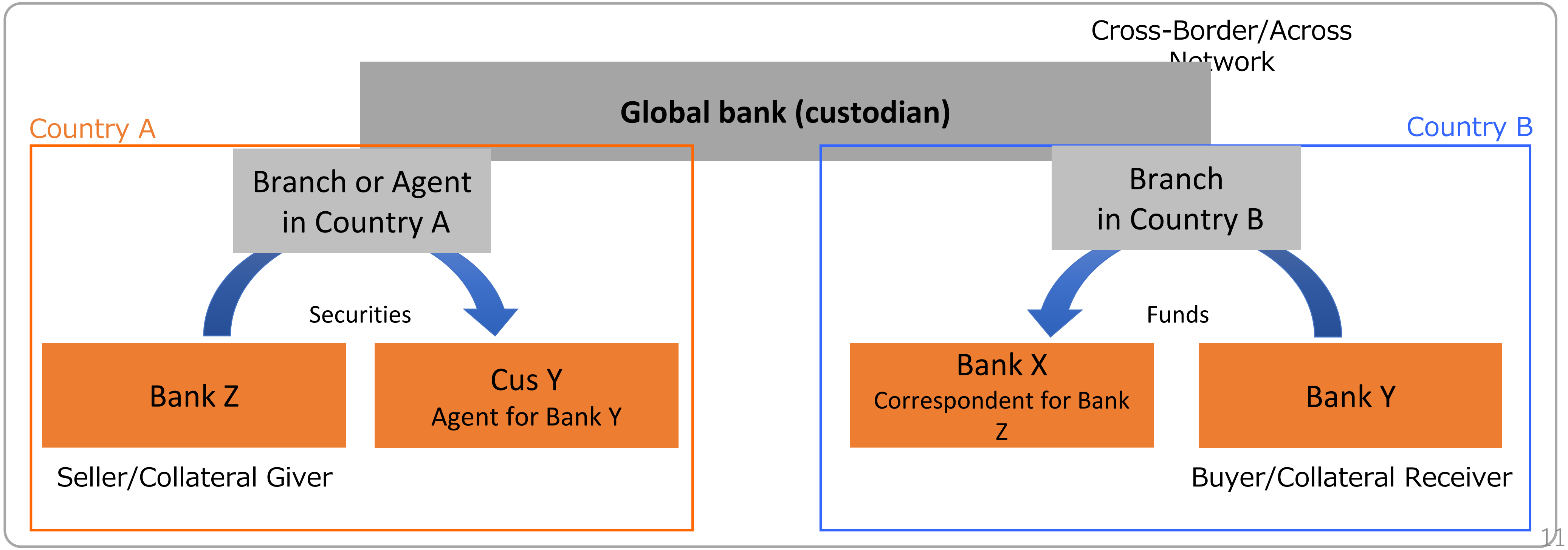
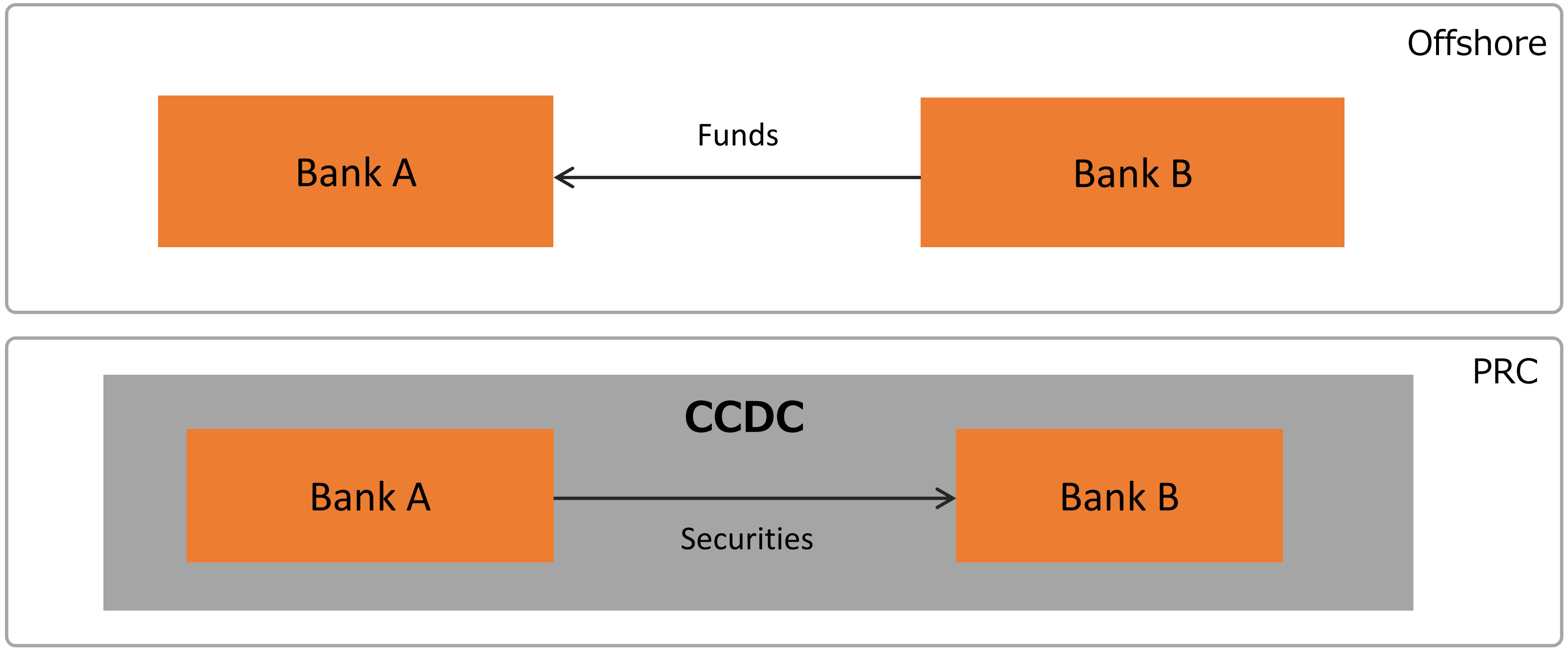


Image of CCDC cross-border collateral service

- Bank A makes securities available as collateral (pledge) at CCDC.
- By pledging the securities via CCDC, Bank A can receive funds in different jurisdiction or offshore.

Assumptions include

- Securities can be deposited at CCDC, have to be of a certain quality.
- Bank B is party who extends funding (domestic) or is agent for party extending the funding (international).
- Funds provided can be readily used offshore.



FINADIUM

Fin (abbv. Finance); Aedium (Latin, House)

Building a culture of repo collateral for bond market development

Josh Galper

Managing Principal

October 18 2019

About Finadium

- Finadium is a consulting firm in securities finance, collateral and derivatives, founded in 2005
- We are consultants to market participants including central banks, pensions, asset managers, hedge funds, banks and regulators
- We offer a subscription to our proprietary research, premium magazine articles and educational webinars
- We maintain databases on securities lending, repo and hedge fund activity
- In 2019, Finadium will produce eight conferences and webinars around the world

Where repo adds value to the markets

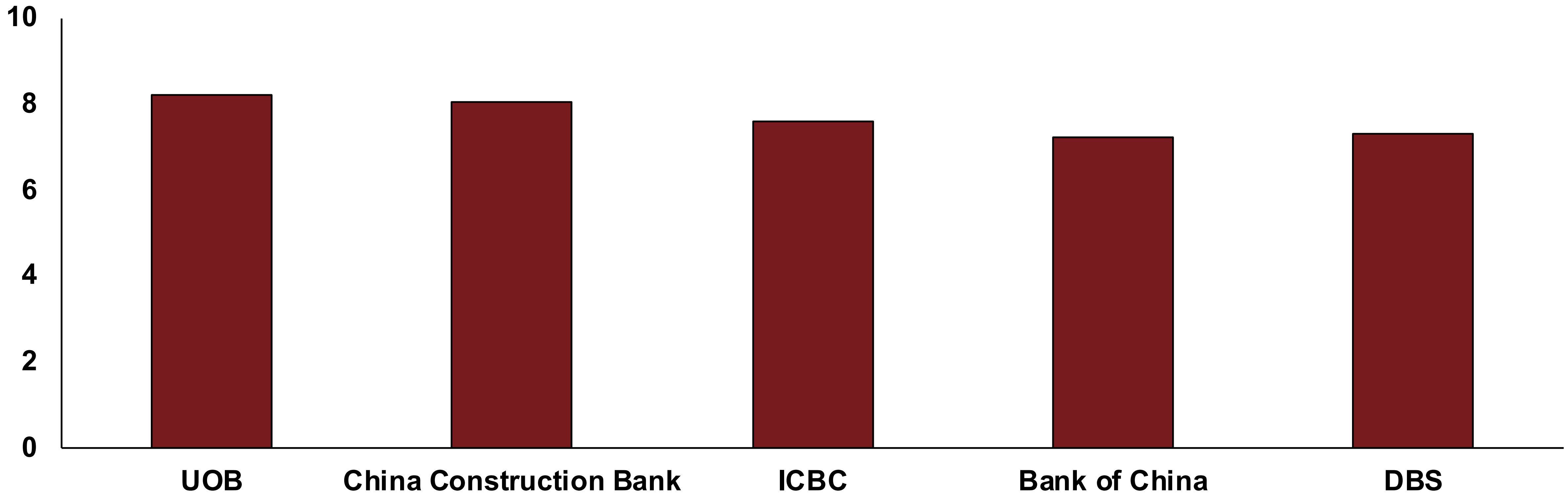
- Banks use repo to finance their clients
  - A client buying securities on margin contributes liquidity to the underlying market
  - A liquid repo market lets banks transact profitably
- More liquidity for bonds and equities means lower issuance costs
  - Issuers have evidence that their bonds have tight spreads and ample liquidity
  - Buyers have comfort that they can buy and sell without excess costs
- Repo can be used to source securities for short-selling
  - This again contributes liquidity to the underlying market
- Cash investors have a safe place to park short-term money

What happens to liquidity without securities finance

- The Global Financial Crisis gave an opportunity to measure liquidity with and without bond lending
- In “Over-the-Counter Market Liquidity and Securities Lending“, Federal Reserve researchers showed that when AIG stopped lending in 2008, trading in impacted bonds saw a 20% liquidity drop
  - Interdealer brokers increased their participation but passed on their costs to clients
- In “The Effect of Short-selling Restrictions on Liquidity: Evidence from the London Stock Exchange,” short selling bans resulted in increased spreads of 140% for affected securities, compared to a 56% spread increase for securities with no bans
- Other studies have found similar results

Strong Basel III Leverage Ratios may contribute to a lack of urgency for repo in Asia

Basel III Leverage Ratios of selected Asian banks, Q1 2019 (Percent)



Source: Bank financial reports, S&P

Uncleared Margin Rules are likely to drive only moderate demand

- ISDA (International Swaps and Derivatives Association) estimates that 70% of Phase 4 and 5 firms will be able to avoid the $50 billion Average Aggregate Notional Amount (AANA) minimum at the onset
- Exchange-traded products like Total Return Futures look to replicate OTC derivatives and repo in a cleared format
- In Finadium surveys, market participants say that they will look more closely at securities lending and repo in place of OTC derivatives in order to avoid Initial and Variation Margin rules

Repo works best in the private market context but may need help to get going

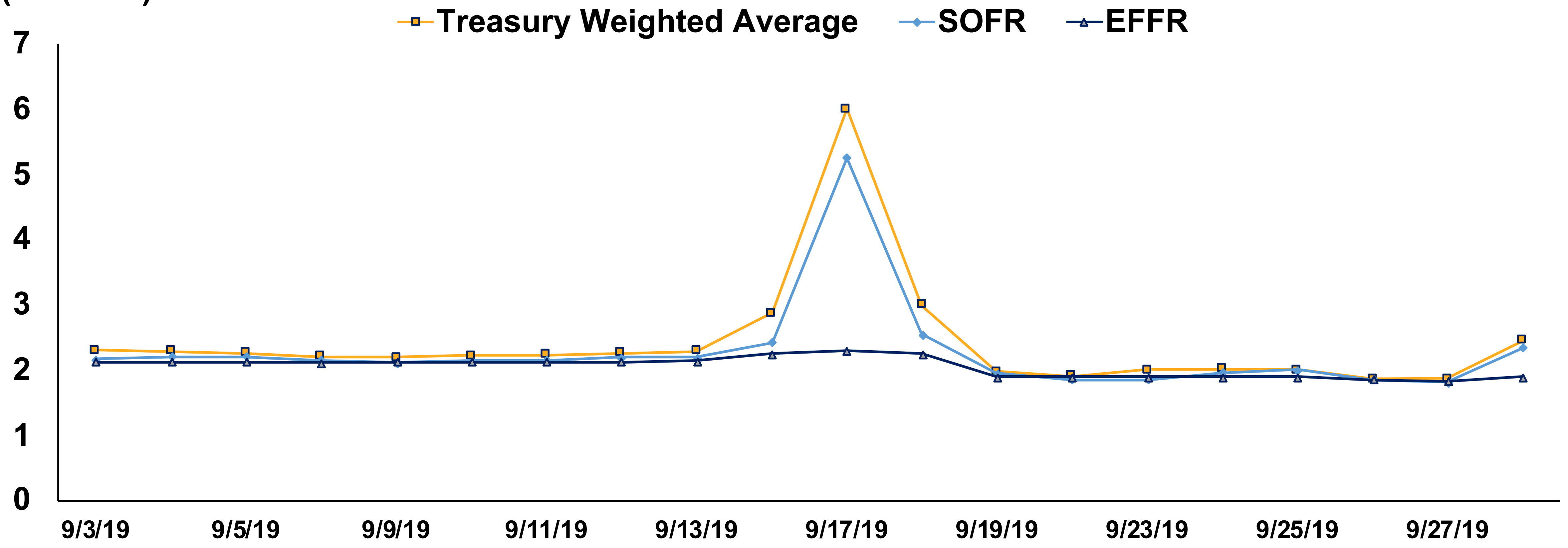
- Ideally, market actors would discover on their own that collateralized are better than uncollateralized cash loans
- Uncleared Margin Rules associated with OTC derivatives should encourage derivatives users to prefer repo over holding excess cash
- Asian repo markets remain underdeveloped, leading to reduced liquidity in corporate bonds
  - The perceived need for Asian repo vs. the absence of market development has been observed for at least a decade
- From a practical perspective, Asian markets may require government intervention to encourage private sector repo use over unsecured loans
  - This will lead to market demand for bonds

Daily and periodic data explain repo activity in the market context

- Daily trading data available from market vendors and trading platforms enables real-time decision making on pricing and volumes
  - The more that trading is automated, the more that electronic delivery of pricing becomes important
- Transparency for both the buy-side and sell-side goes with a belief in the fairness of repo transactions
- For market strategists, regulators and academics, repo data provides important insights on market activity

Published repo data and repo indices show normal market operations and dislocations

GCF Repo® Treasury, Secured Overnight Financing Rate (SOFR) and Effective Federal Funds Rate (EFFR) , September 2019 (Percent)



FINADIUM

Sources: Federal Reserve, DTCC, Finadium analysis

Intraday and daily repo data sources

Trading venues

MTS

Tradeweb

NEX EBS BrokerTec

Central counterparties

eurex

Governments

Board of Governors of the Federal Reserve System

Coming April 2020: Europe's Securities Financing Transactions Regulation (SFTR)

Index providers

RepoFundsRate

BNY MELLON TRI-PARTY REPO INDICES

DTCC

Data vendors

Bloomberg

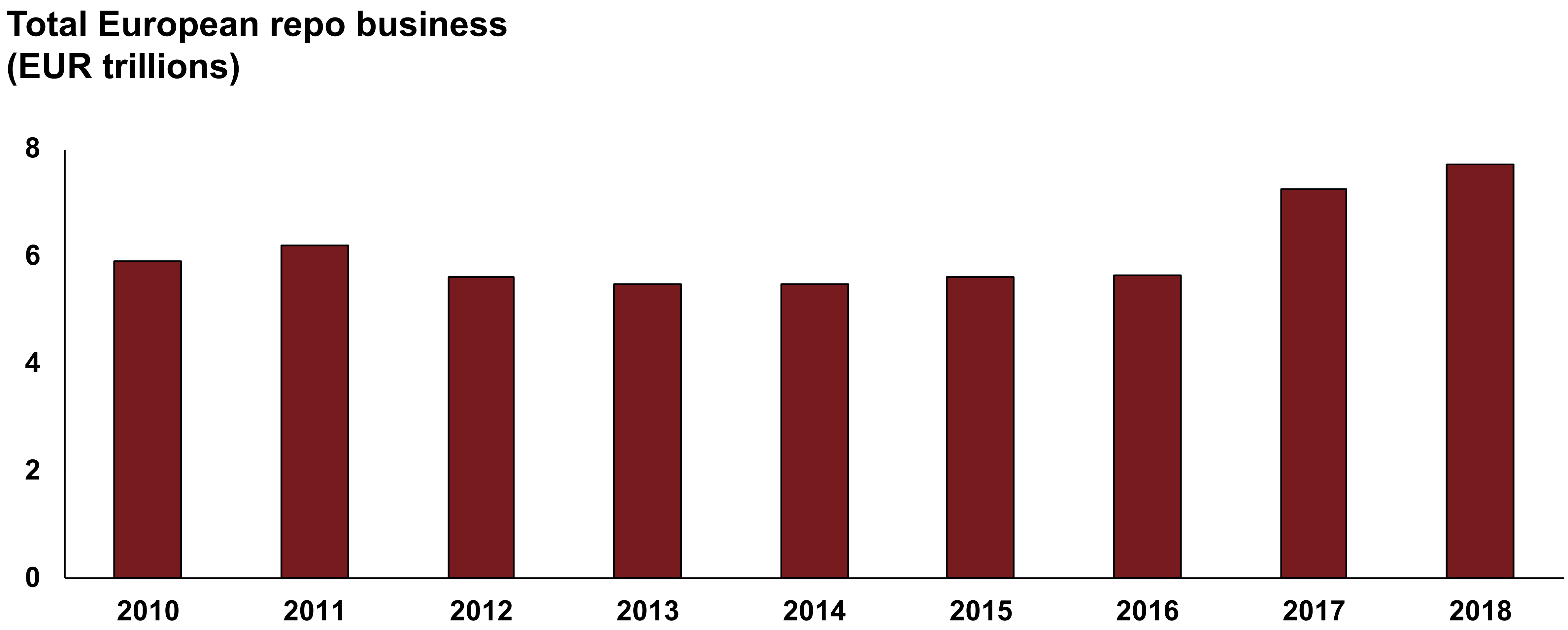
REFINITIV

FINADIUM

Industry associations, regulators and private company analyses support market structure development

- ICMA (International Capital Markets Association) conducts a valuable biannual European repo market survey
- The ICMA/ASIFMA (Asia Securities Industry & Financial Markets Association) pilot survey of the Asia-Pacific repo market was well received
- Governments and banks produce occasional pieces on repo
  - Bank for International Settlements, Federal Reserve, RBA (Reserve Bank of Australia), J.P. Morgan, SIFMA, EMEAP and others
- Finadium conducts regular regulatory and market analyses including analytical reports and brief articles

Sizing the market is critical to understanding its importance



Source: ICMA

A greater move towards private sector repo in Asia will be driven by banks, not investors

- Banks and their clients will trade where the costs are lowest
  - Clients will follow if low cost is delivered with operational ease
- Globally, Basel III rules have encouraged the use of repo over uncollateralized loans
  - These same rules are behind the growth of buy-side repo on CCPs (Central Counterparties)
  - CCPs for repo benefit most when banks need balance sheet-friendly alternatives to bilateral trades
  - But Asia has not seen the same level of demand as North America and Europe

Four ideas for building the Asian repo market

- Regulators could encourage banks to prioritize repo over unsecured financing
- The ADB's Credit Guarantee Investment Facility could backstop corporate bond repo
- The ADB or other entity could sponsor a pan-Asian collateral basket that could be traded as a repo or Total Return Future product
- Regulators could provide incentives for market makers to hold and trade corporate bonds, which would drive short selling liquidity demands including repo

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Josh Galper, Managing Principal

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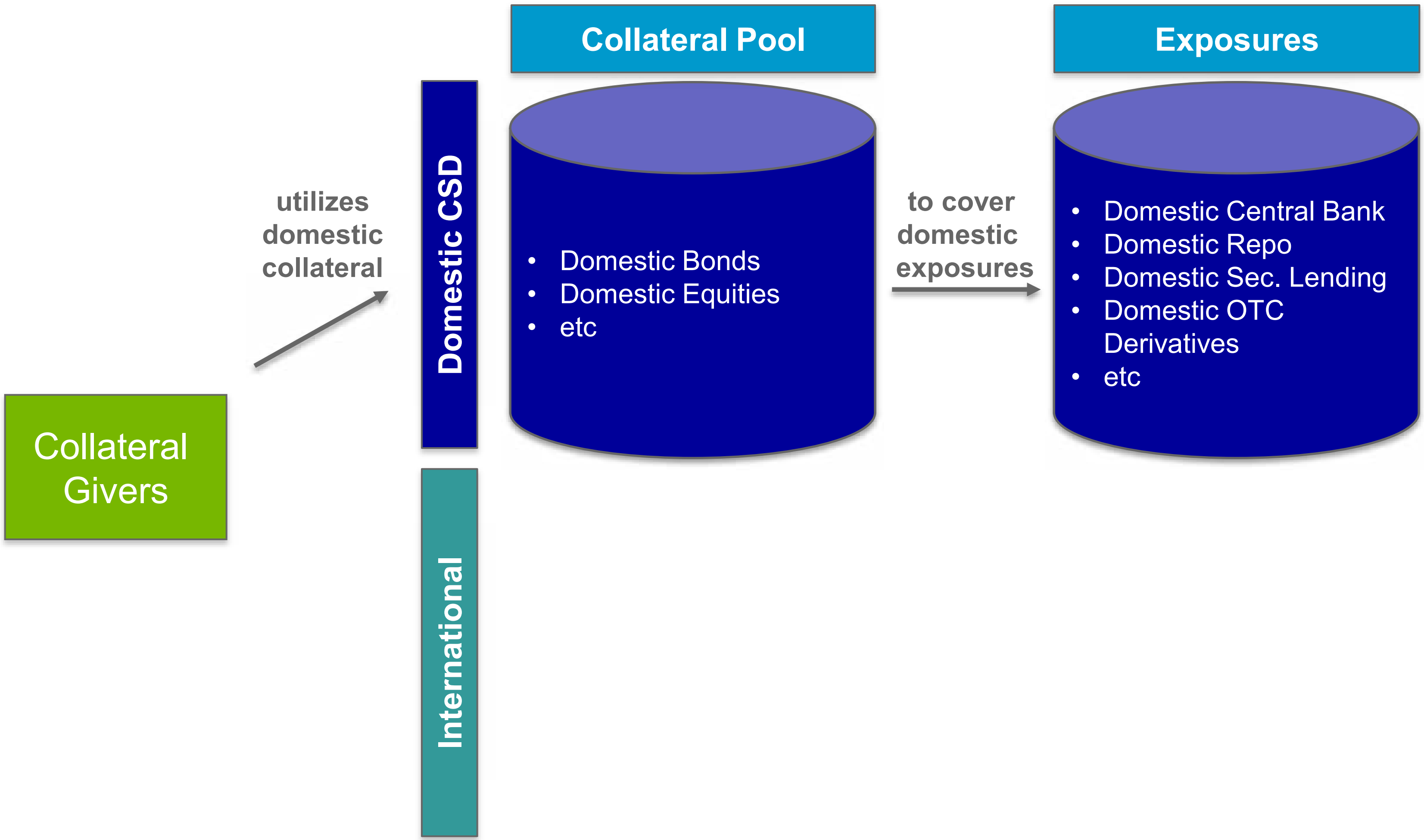
Cross-border Triparty Repo in Asia : impediments and challenges

19th Cross-Settlement Infrastructure Forum (CSIF)
Shenzhen, 18 Oct 2019

By Davin Cheung

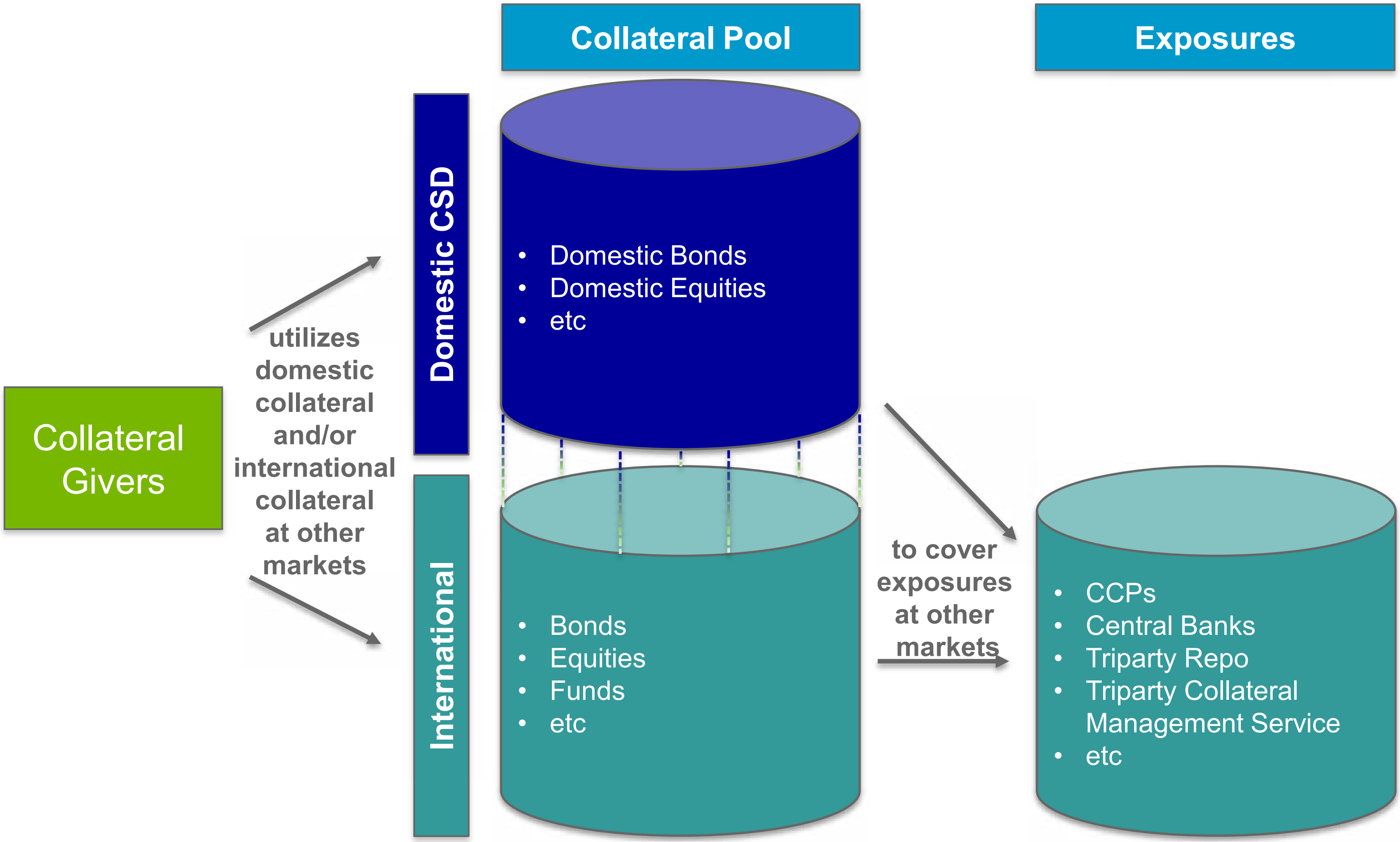
Domestic securities to be used as collateral to cover local exposures ?

- domestic collateral management

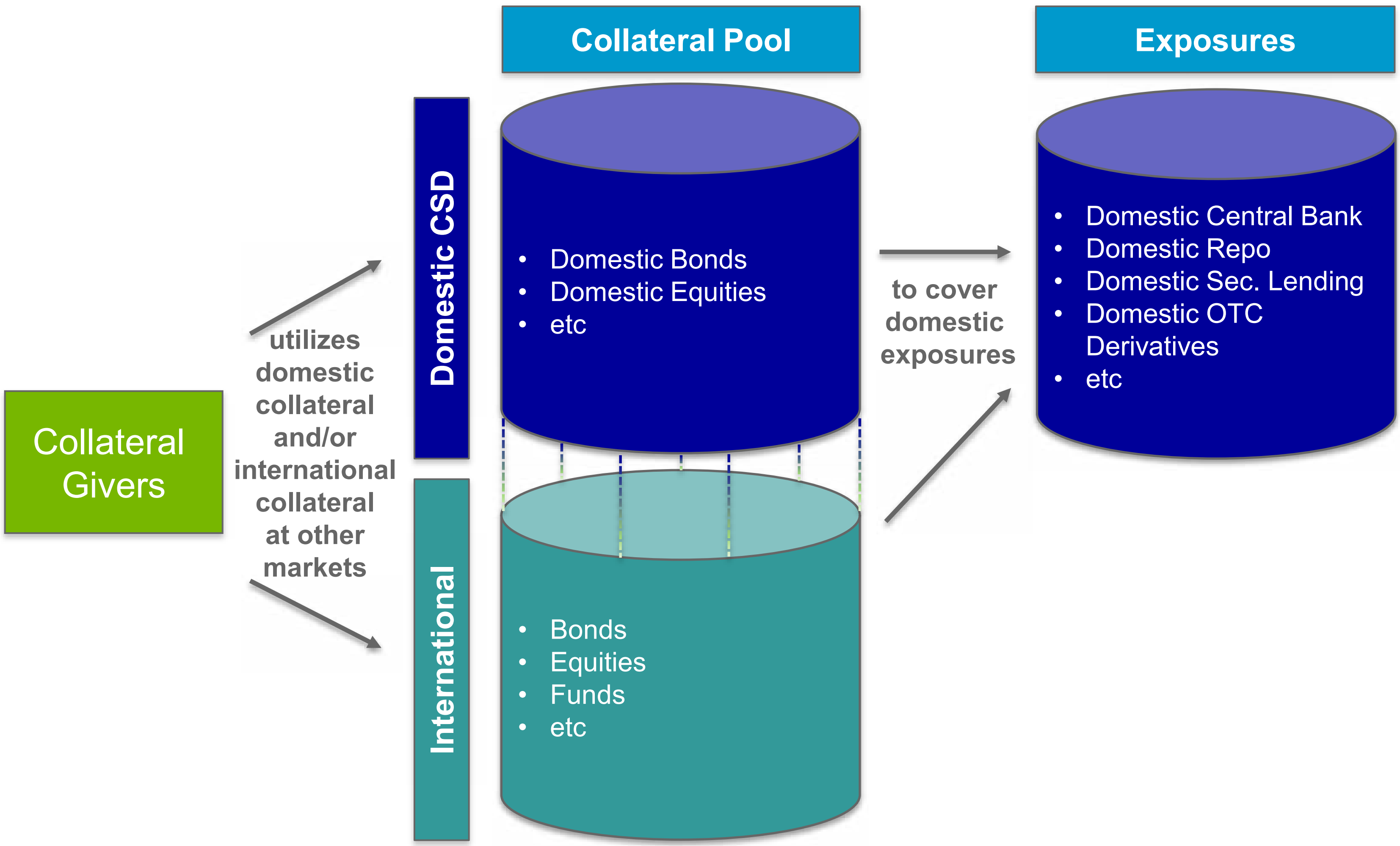


Can domestic securities pools be used for international exposures ?

- inclusion of international exposures

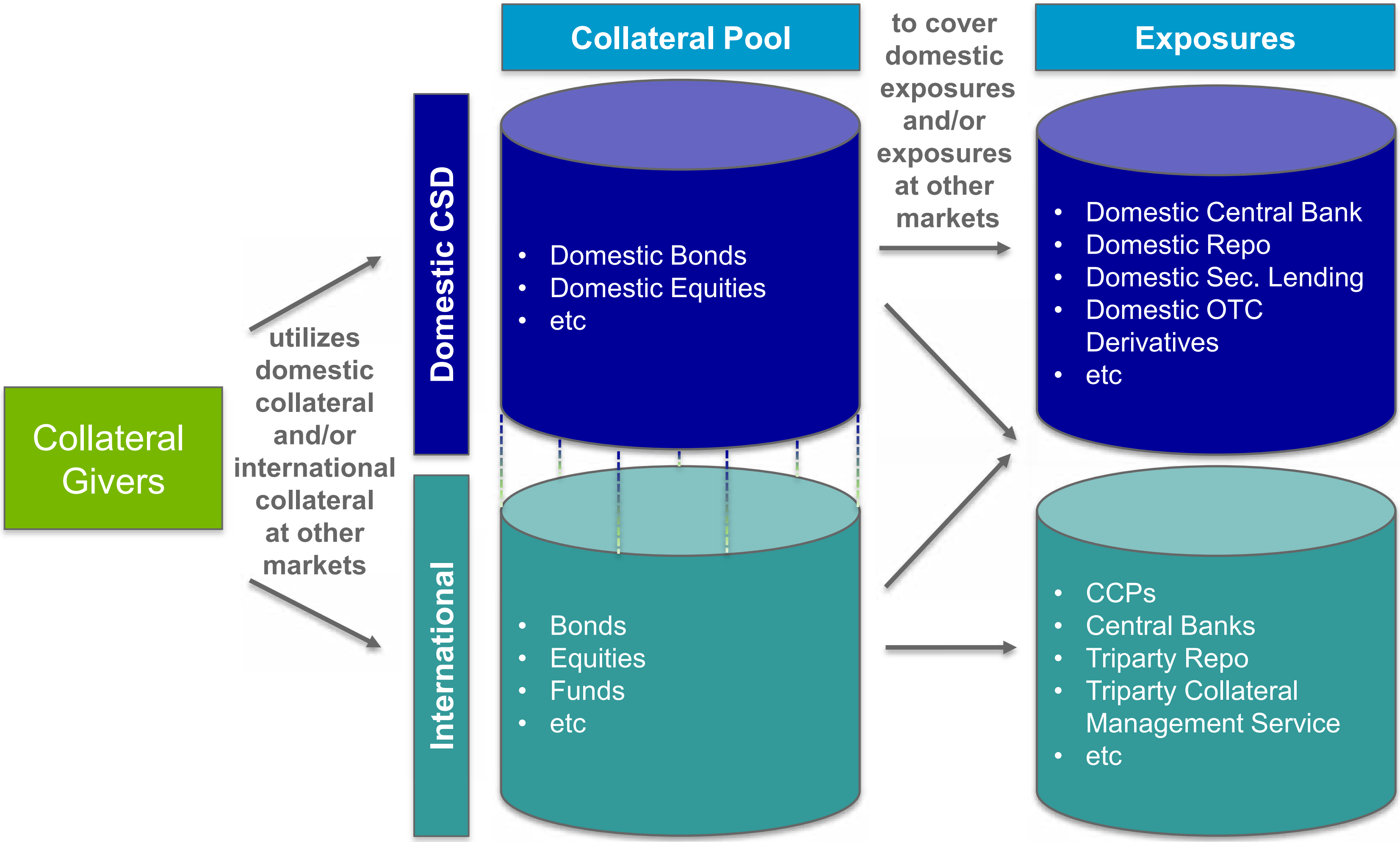


Can international securities be used to cover domestic exposures ?
- inclusion of international collateral



A more ideal scenario to work on..

- cross-border collateral management



THANK YOU !

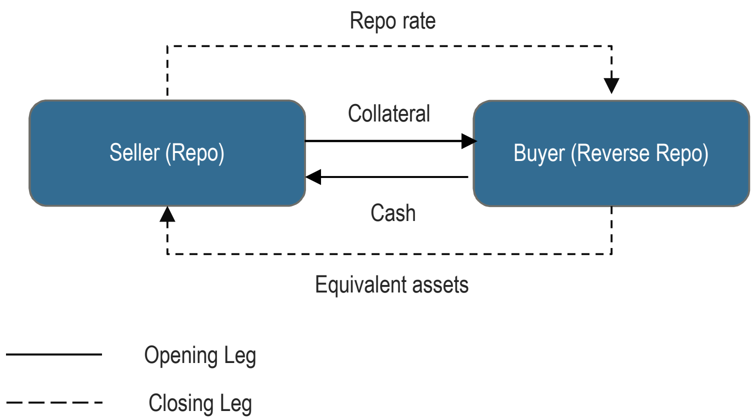
Cross-border Triparty Repo in Asia: Impediments and Challenges

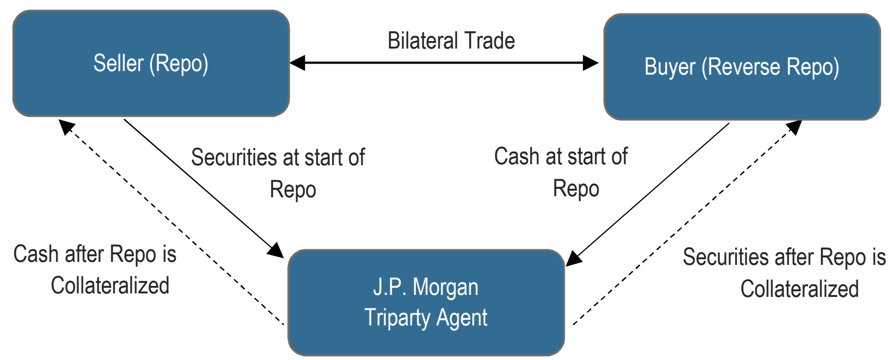
October 2019

O’Delle Burke
Executive Director, Head of Collateral Management Product, Securities Services Asia Pacific, J.P. Morgan

Growing interest from Bilateral Repo to Triparty Repo

The growth of triparty repo is driven by an increase in cross-border financing activities…





Bilateral Repo

- Repo is the short-term borrowing where a party sells the security and agrees to repurchase it in the future.
- Sale and simultaneous repurchase of the underlying security, conducted on a delivery-versus-payment (DVP) basis

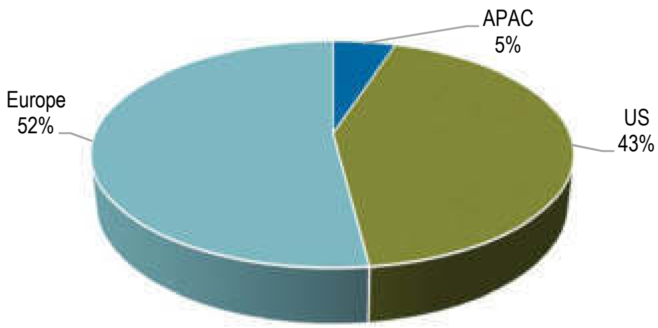
Triparty Repo

- Triparty Repo is where a triparty agent acts as an intermediary between two parties to the repo
- Repo sellers and buyers execute a Master Repo Agreement
- Repo sellers, buyers, and the triparty agent execute a triparty agreement such as collateral eligibility schedule.

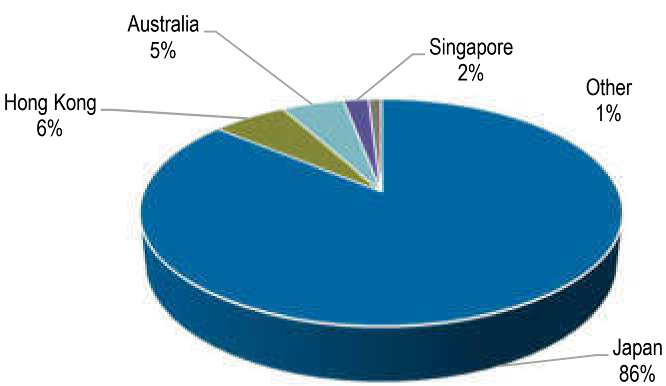
Growth in Global Triparty Repo, with APAC having the fastest growth rate

Regulatory drivers and market forces are driving the growth of global Repo market, with Europe being the largest contributing region…

Global Triparty Repo ($4.7Tn) represent 6% of world GDP ($76Tn), with Europe being the largest region



Asia Pacific Triparty Balances($235bn) by country



Source: Finadium - The Global Tri-party Services Market in 2017; ICMA - European Repo Market Survey; *ASIMFA – A pilot survey of the Asia Pacific Repo Market*

Global Triparty Repo

- Europe (52%) is the largest region with Securities Lending constituting 74% of triparty arrangements.
- Unlike Europe, the U.S. (43%) is the 2nd largest region with Repos being the most dominant with 91% of the local market
- Growth drivers for Triparty Repos:
  - Operational and settlement efficiency through system integration
  - Counterparty and operational risk reduction
  - Optimization of collateral allocation and automated substitution of collateral

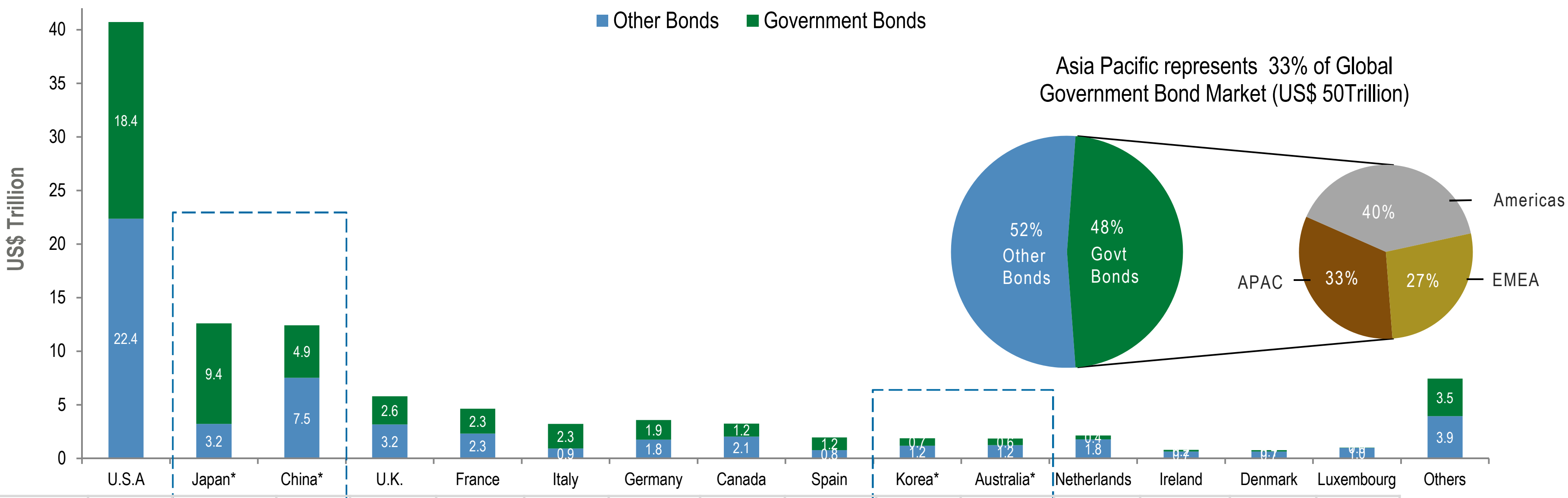
APAC Triparty Repo

- Triparty balances in Asia has increased by 25% in 2017, with Japanese securities constituting 86%.
- Asian investors are turning to repos to raise eligible collateral assets such as cash for OTC derivatives
- Sovereign securities collateral constitute a larger share in APAC than EMEA
- Driven by LCR & NSFR* regulations and higher capital costs, Asian Investors are switching from unsecured to secured funding.
- New triparty developments enabling the mobilization of unutilized/underutilized assets as collateral in markets like Taiwan, South Korea, and Hong Kong Stock Connect Scheme

Global Bond markets is integral to Repo financing

Government Bonds are relatively more liquid and has lower correlation to the credit risk of repo counterparty …

Global Bond market is US$104 Trillion, with Government Bonds constituting 48% in 2018



	U.S.A	Japan*	China*	U.K.	France	Italy	Germany	Canada	Spain	Korea*	Australia*	Netherlands	Ireland	Denmark	Luxembourg	Others	
S&P Rating	Aaa	A1	A1	Aau	Aa2u	Baa3u	Aaau	Aaa	A	Aa2	Aaa	AAA	AAA	AAA	Aaa		
Govt Bonds	18.4	9.4	4.9	2.6	2.3	2.3	1.9	1.2	1.2	0.7	0.6	0.4	0.2	0.1	0	3.5	**49.7**
Others	22.4	3.2	7.5	3.2	2.3	0.9	1.8	2.1	0.8	1.2	1.2	1.8	0.7	0.7	1	3.9	**54.7**
Total	**40.8**	**12.6**	**12.4**	**5.8**	**4.6**	**3.2**	**3.7**	**3.3**	**2**	**1.9**	**1.8**	**2.2**	**0.9**	**0.8**	**1**	**7.4**	**104.4**
Govt Debt/GDP	**90%**	**189%**	**36%**	**93%**	**83%**	**110%**	**46%**	**71%**	**83%**	**43%**	**44%**	**40%**	**44%**	**36%**	**14%**	**1%**	**15%**

Source: Bank of International Settlements (BIS), September 2018 (USD in Trillion)
Credit ratings are adapted from Standard & Poor (S&P) Rating
GDP statistics are adapted from 2018 World Bank statistics

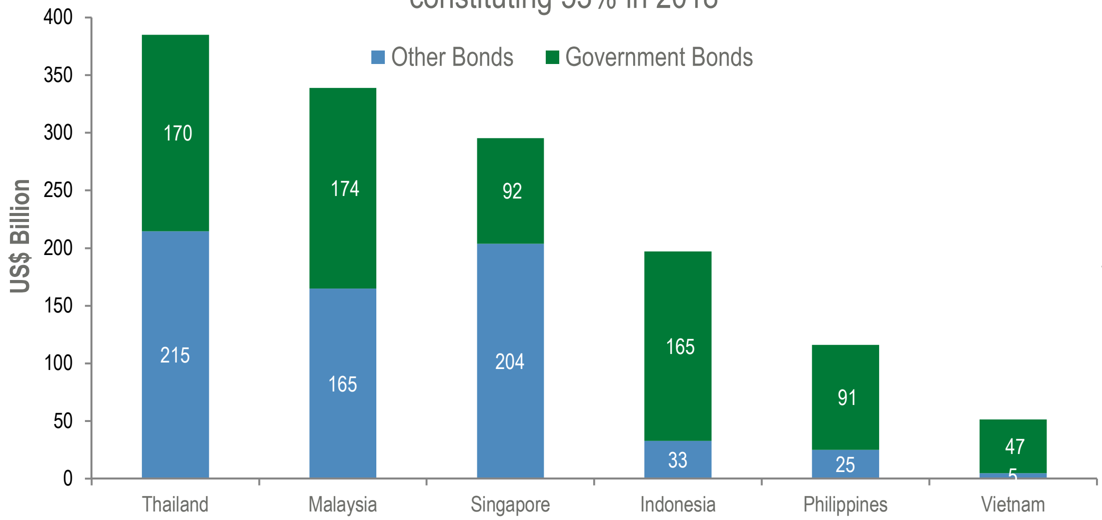
Summary

- U.S. (41Tn), Japan (13Tn) and China (12Tn) are the three largest markets (66Tn) globally, constituting more than 50% of total debt securities outstanding.
- China, being the 3rd largest bond market is exclusively onshore with several collateral and access restrictions for offshore market participants
- Japan, being the 2nd largest bond market, is the most liquid and actively traded market in Asia Pacific
- Australia is a relatively small market (Total Debt - 2Tn, Government Bonds - 0.6Tn) with market regulations permitting bonds to be used as collateral
- Korea is another Asian market that has access restrictions. However, ISDA along with some Global Custodians are working through a solution

ASEAN+3 Market liquidity is key to developing a robust cross-border Repo market

Government Bonds are relatively more liquid and lower correlation to the credit risk of repo counterparty …

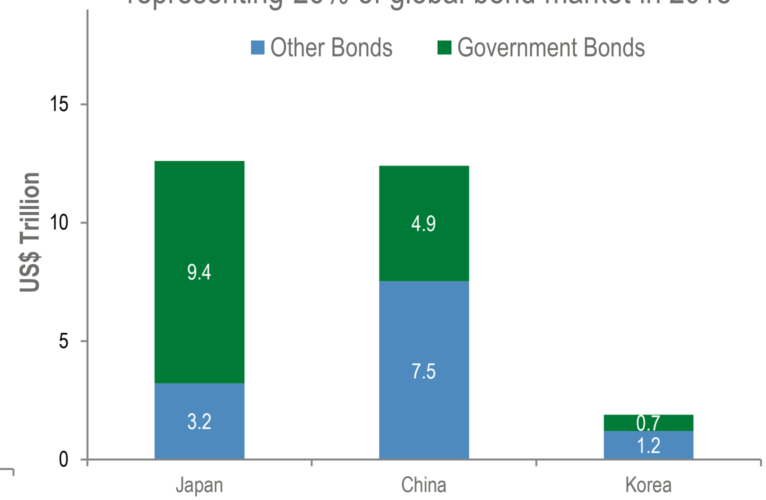
ASEAN market is US$1.4 Trillion, with Government Bonds constituting 53% in 2018



S&P Rating	Baa1	A3	AAA	Baa2	Baa2	Baa3
Govt Bonds (bn)	170	174	92	165	91	47
Others (bn)	215	165	204	33	25	5
Total	**385**	**339**	**295**	**197**	**116**	**51**
Govt Debt/GDP	**34%**	**49%**	**25%**	**16%**	**28%**	**19%**

Source: Asian Bond Online, Financial Year 2018, USD in Billions
Credit ratings are adapted from Standard & Poor (S&P) Rating
GDP statistics are adapted from 2018 World Bank statistics

Japan, China and Korea constitute US$27 Trillion, representing 26% of global bond market in 2018



S&P Rating	A1	A1	Aa2
Govt Bonds (Tn)	9.4	4.9	0.7
Others (Tn)	3.2	7.5	1.2
Total	**12.6**	**12.4**	**1.9**
Govt Debt/GDP	**189%**	**36%**	**43%**

Source: Bank of International Settlements (BIS), September 2018 (USD in Trillion)
Credit ratings are adapted from Standard & Poor (S&P) Rating
GDP statistics are adapted from 2018 World Bank statistics

Summary

- ASEAN (US$1.4tTn) represents 3% of the Global Government Bond Market (US$ 50Tn) and 9% of APAC Government Bond market (US$16Tn)
- Thailand (385bn), Malaysia (339bn) and Singapore (295bn) are the three largest markets (1.4Tn) in Southeast Asia, constituting more than 74% of total debt securities outstanding.

J.P.Morgan

While Triparty Repo market in APAC is growing, challenges still remain

Developing a cross-border regional repo market in Asia Pacific will require a robust legal framework, liquid bond markets and interoperable market infrastructure.

Factor	Challenges faced in Asia's Repo market	How can Triparty Agents help?
Legal Documentation	• Documentation varies from GMRA*, undermining default and insolvency law protections in Asia • Lack of contract enforceability hinders reinforcement of rights • Lack a standardized legal documentation framework with no adoption of true-sale repos framework	Simplified process with standardized legal agreements for triparty repo transactions across counterparties.
Market Liquidity	• Restrictions on investor participation and market access • Limited pool of eligible assets, which limits the utilization of bond holdings in Repo markets on balance sheets.	• Identify eligible collateral • Facilitate delivery from provider to receiver • Collateral optimization
Market Infrastructure interoperability	• Relatively fragmented securities settlement systems (CSDs, ICSDs**) result in high cross-border trading costs, operational risk and inefficient settlement. • Strengthen connectivity between financial market infrastructures to support cross-border repo markets.	Integrated platform with straight-through processing (STP) capabilities to facilitate triparty repo transactions across counterparties.

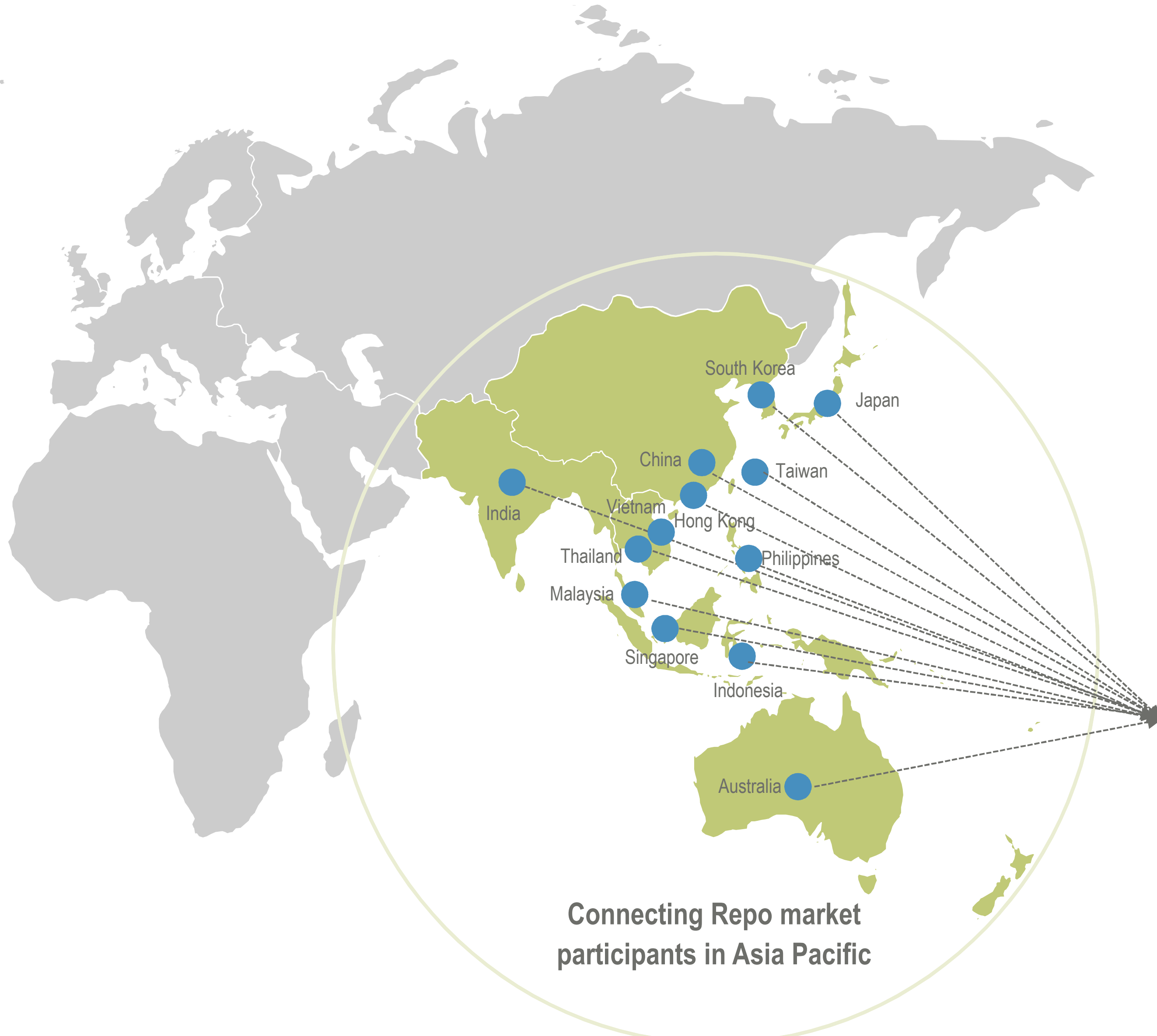
* GMRA – Global Masters Repurchase Agreement, international documentation standard for Repo
** CSDs – Central Securities Depositories, ICSDs – International CSDs

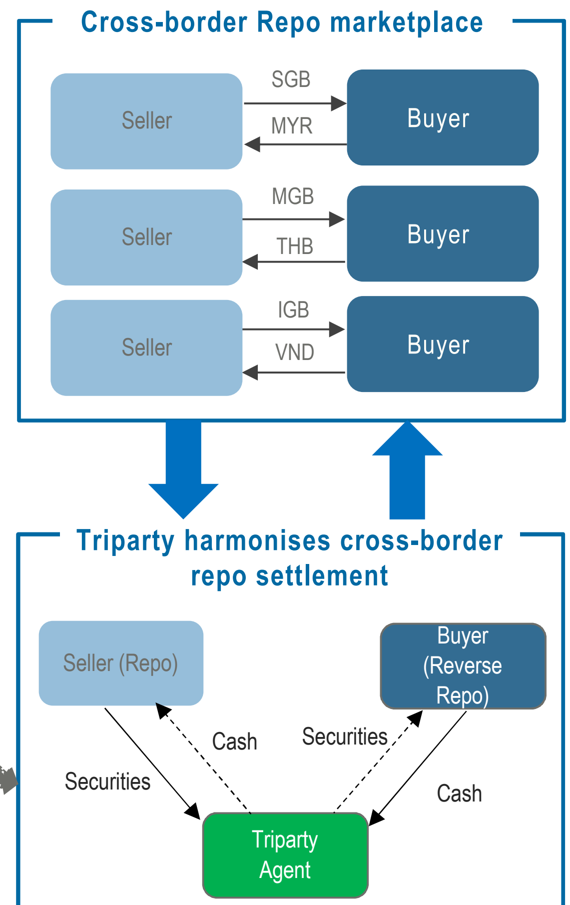
ASEAN+3 Cross-Border Repo Market Comparison

There are specific differences in various markets hindering the development of a robust and scalable cross-border regional repo market in Asia Pacific

Country	U.S.	Europe	ASEAN +3			Southeast Asia (ASEAN)					
			Japan	China	South Korea	Thailand	Indonesia	Malaysia	Singapore	Philippines	Vietnam
Repos/ Government Bonds	11%	18%	15%	5%	5%	<1%	<1%	1%	2%	<1%	<1%
Repo Type	Classic	Classic	Borrow & Lend Classic (Gensaki)	Pledged (96%) Classic (4%)	Classic	Classic (mainly) Buy/Sell-back	Classic Buy/Sell-back (mainly)	Classic Buy/Sell-back	Classic	Classic	Classic
Use of GMRA	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	
Tax Treatment Basis	Loan	Loan	Loan	Loan and Outright	Loan	Loan	Loan	Loan	Loan	Loan	
Withholding tax	Yes	Yes	No	No	Yes	No	Yes	No	No	Yes	
OTC Vs Exchange	OTC	OTC	OTC	OTC (mainly) and exchange	OTC (mainly) and exchange	OTC	OTC	OTC	OTC	OTC	Exchange
Foreign Market Access	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes

Triparty Agents bring harmonisation to Asian's Repo markets





- Legal documentation standardization
- Integrated platform and infrastructure
- Support market liquidity

Q&A

CCDC Collateral Management and Cross-border Applications

China Central Depository & Clearing Co., LTD.

FEI TAO

Collateral Management Center

CONTENTS

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01

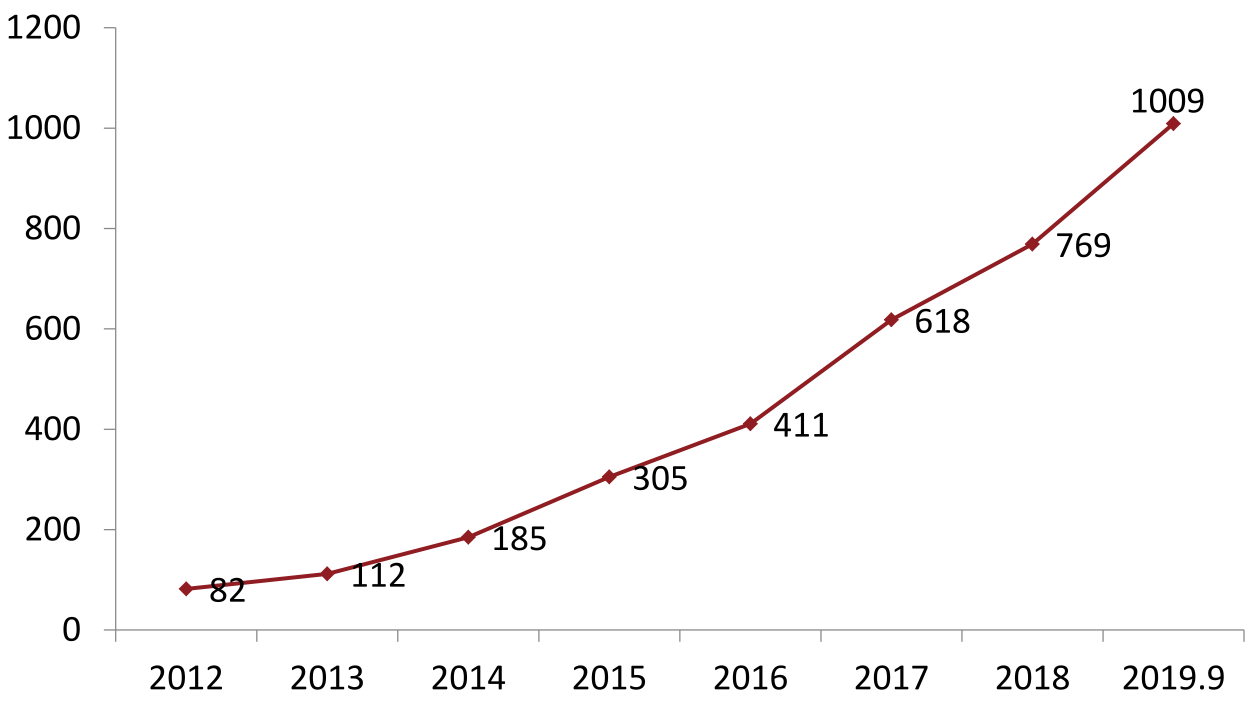
PART ONE

Overview of CCDC Collateral Management Service

Overview of CIBM

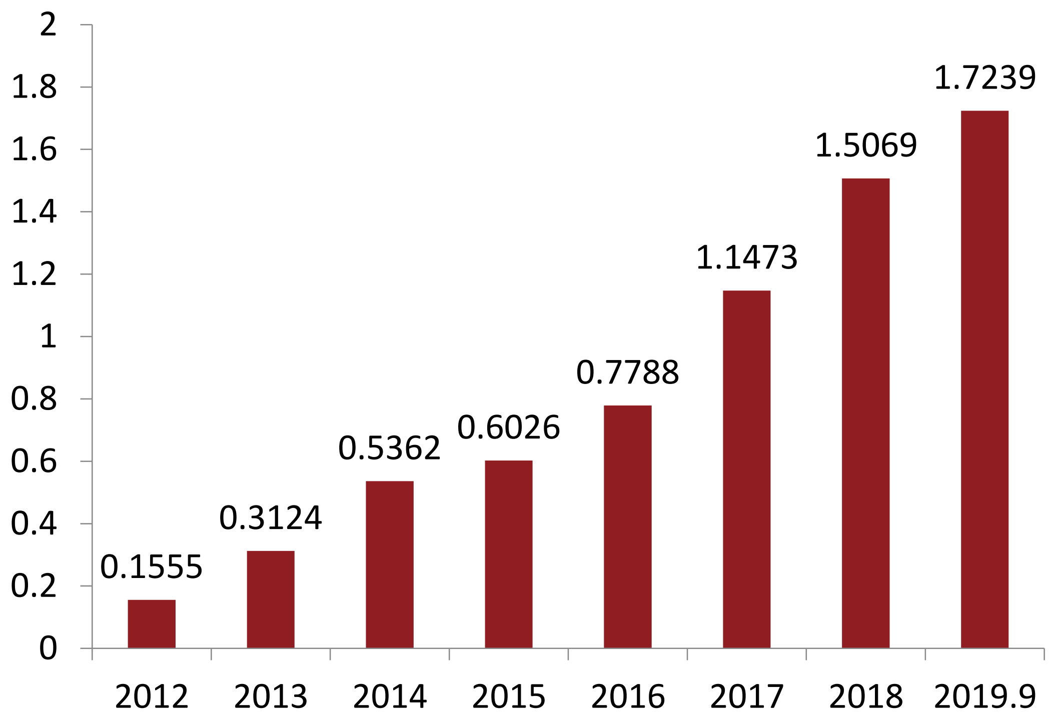
中央国债登记结算有限责任公司
CHINA CENTRAL DEPOSITORY & CLEARING CO., LTD.

Number of accounts of foreign investors（by end of Sep 2019）



Data Source： CCDC

Bond holdings of overseas investors (in trillion RMB)

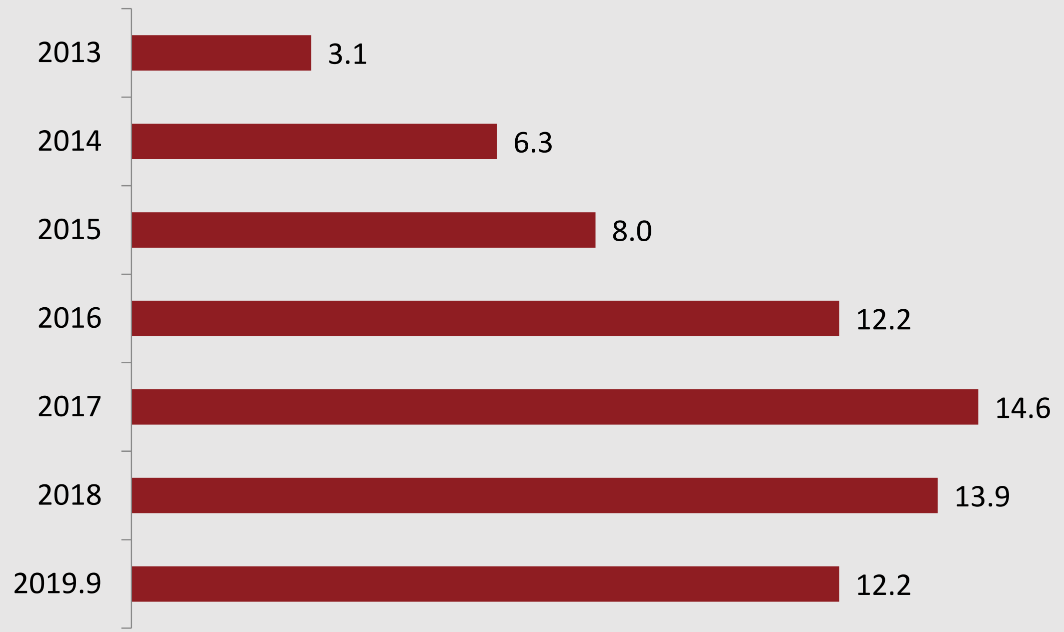


Overview of CCDC Collateral Management

Field	Balance	Ratio
China Bond Market	95.10	100%
Bonds deposited in CCDC	62.92	66.16%
Bonds pledged in CCDC	12.21	12.84%

Unit : Trillion RMB

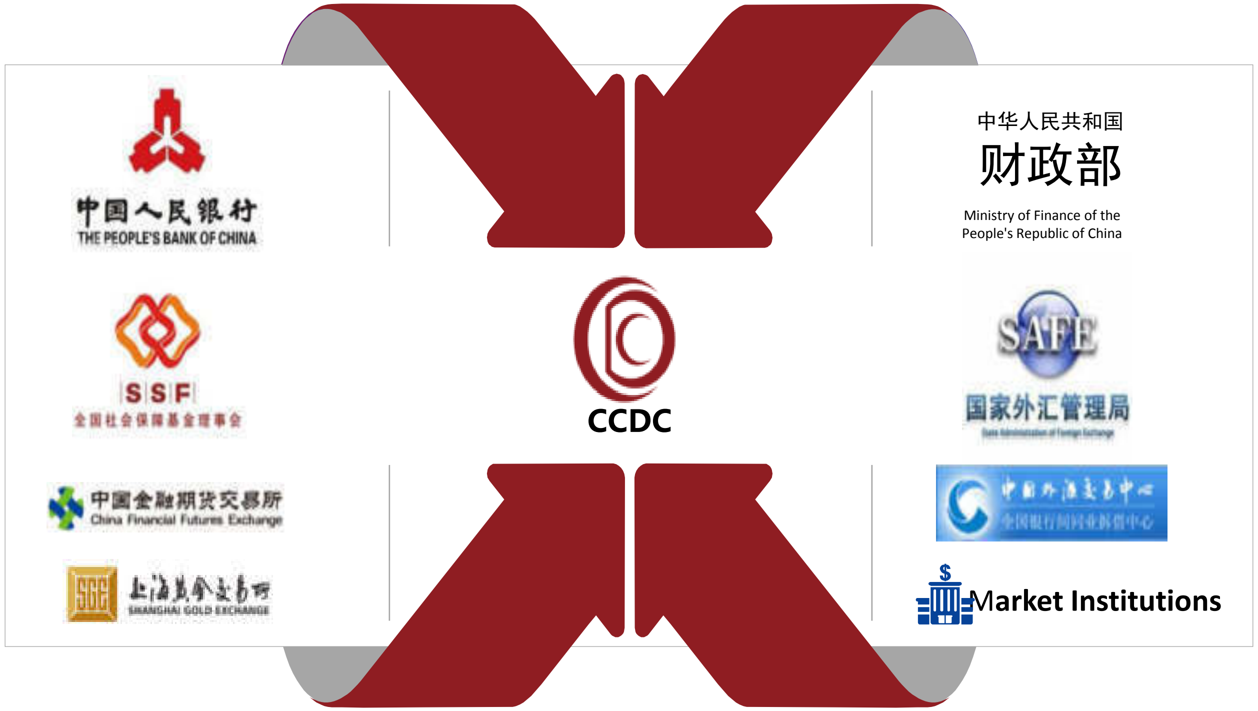
Collateral under the management of CCDC (in RMB trillion)



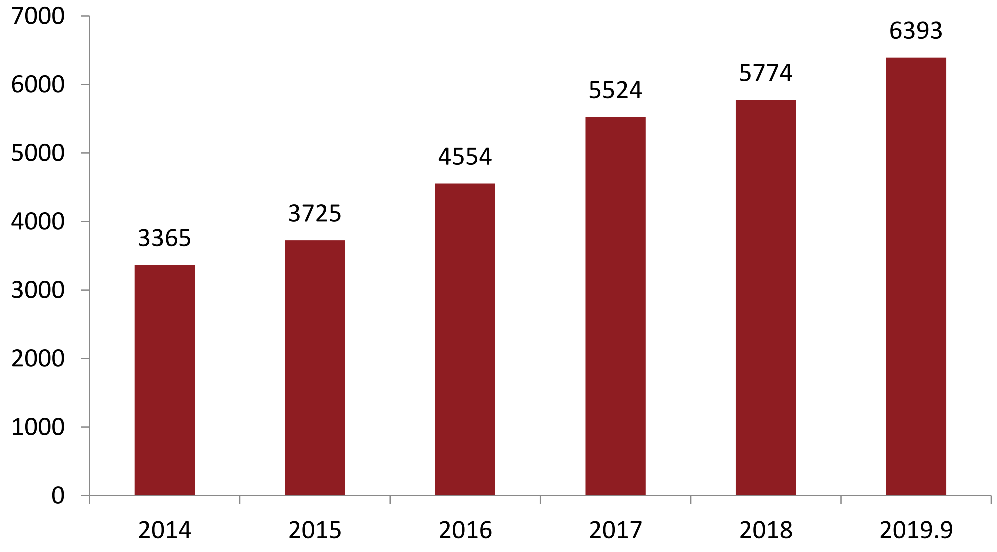
Overview of CCDC Collateral Management

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

We provide services to **6393** market institutions



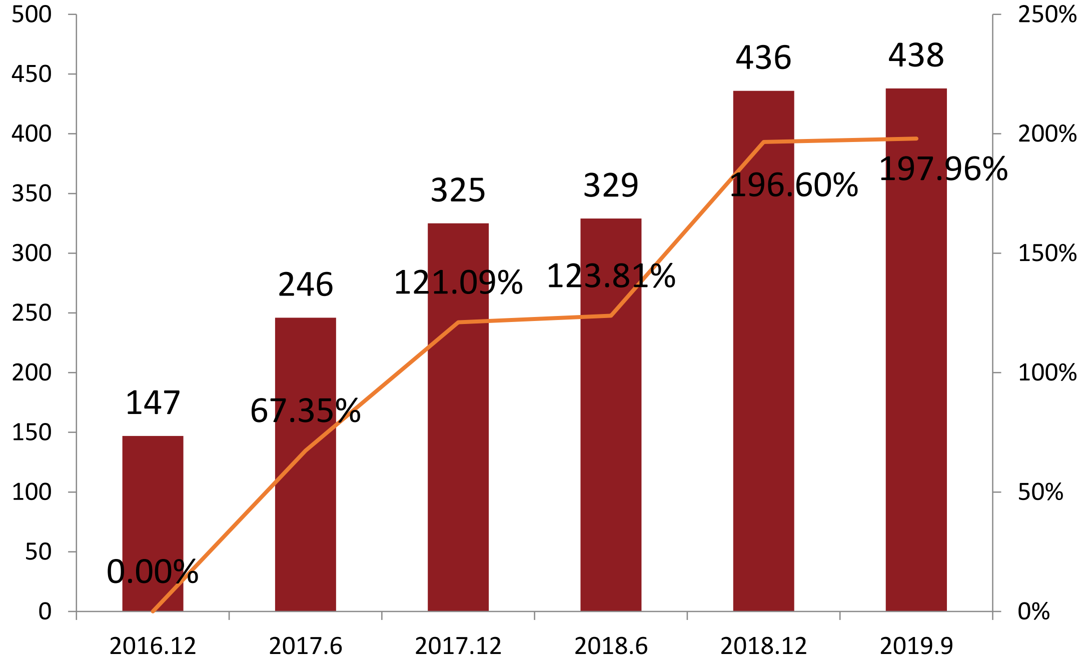
Number of clients of Collateral Management Center



Overview of CCDC Corss-border Collateral Service

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

Cross-border collateral business balance
(in RMB 100 million, 2016-2019.9)



Notes: Percentage Change is the growth rate of collateral balance compared with the level in Dec 2016.

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 44 billion.**

10th China-UK Economic and Financial Dialogue

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

Overview of CCDC Corss-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

02

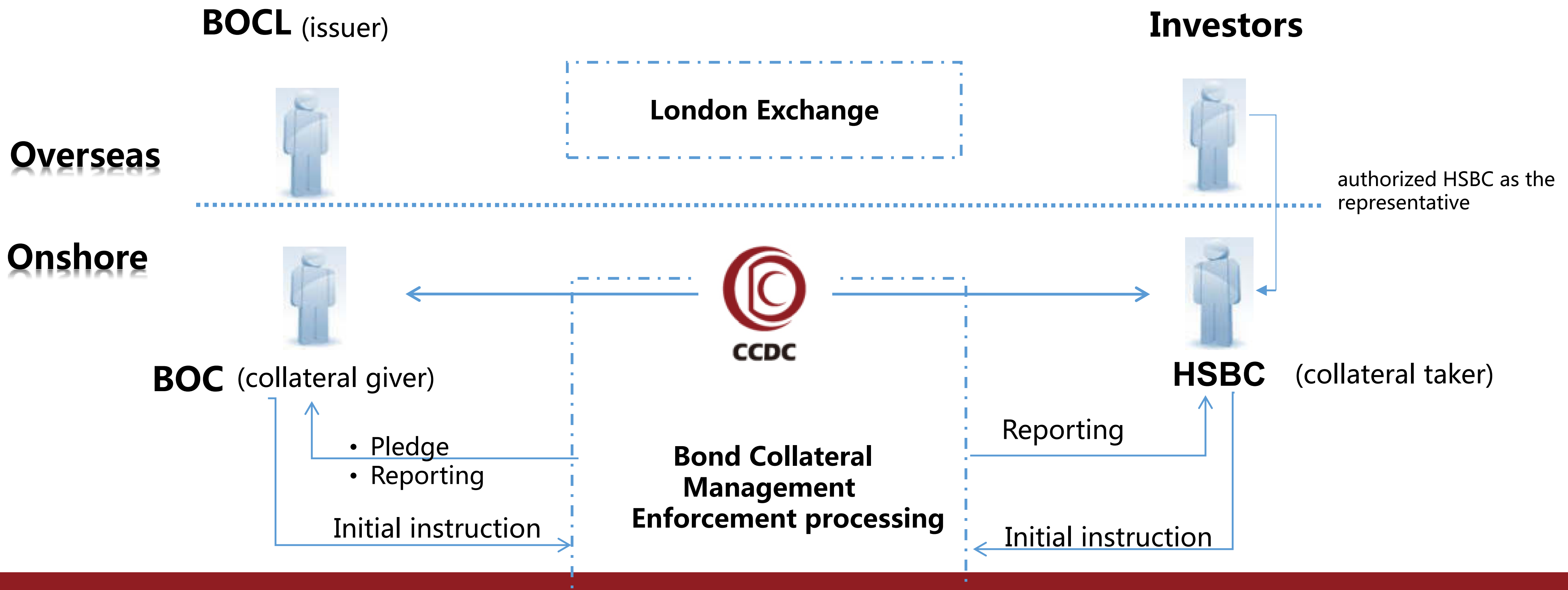
PART TWO

Cases of CCDC Cross-border Collateral Service

Cases of CCDC Corss-border Collateral Service

Support Overseas Issuance of BOC Green Covered Bonds

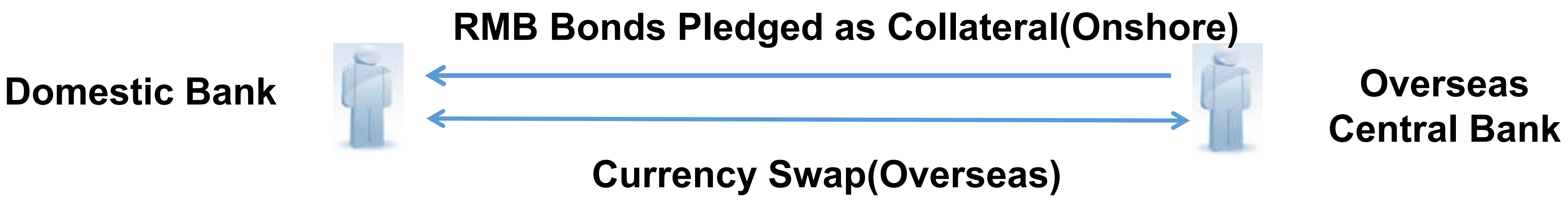
BOC used its green bonds as collateral to guarantee its issuance of overseas bonds. CCDC, as the collateral management provider, carried out the valuation, mark-to-market and assessment of the pledged assets pool. Meanwhile, CCDC acted as an executing agent to perform the default operation of the collateral in the event of default.



Cases of CCDC Corss-border Collateral Service

Support Currency Swap Transaction Between Domestic Commercial Banks and Foreign Central Banks

To control the credit risk from their counterparties, domestic commercial banks accepted RMB bonds from the overseas central banks as collateral to ensure that the swap contract can be successfully implemented.

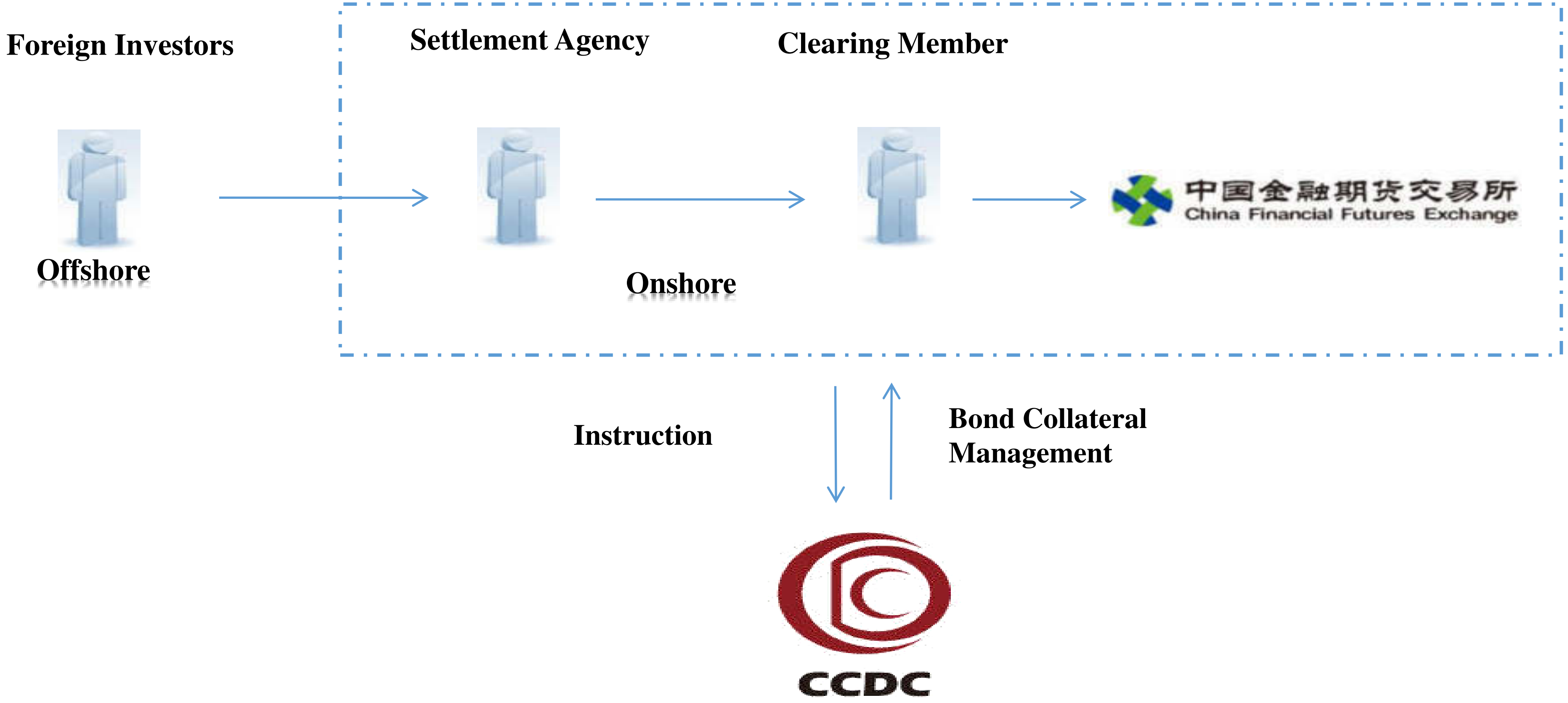


Cases of CCDC Corss-border Collateral Service

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

Support Bond as Margin in Derivatives Trading

Foreign investor can use the RMB bonds instead of cash as the margin. By the end of Aug,2019, the balance of collateral under this business exceeded **RMB 7.5 Billion.**

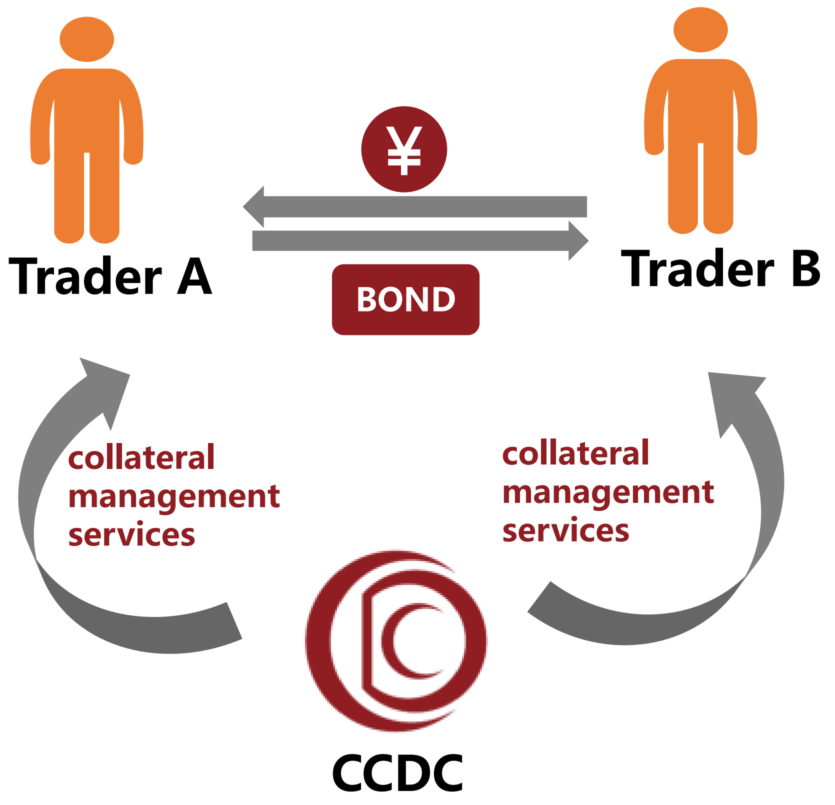


03

PART THREE

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.

Innovations of Collateral Service

- The core difference of pledge and title-transfer is whether the title of bond collateral has been transferred
- Major breakthrough: quick disposition of collateral
- CCDC Support : Conversion into Value/Private Sale/Auction

  Debtor does not fulfill maturing debt, creditor has higher priority with pledged assets which disposed for auction.

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

Oct 18, 2019

Central Bank Collateral Frameworks for ABMI

Gongpil Choi
APCF
19th ABMF-CSIF Meeting
Shenzhen 2019

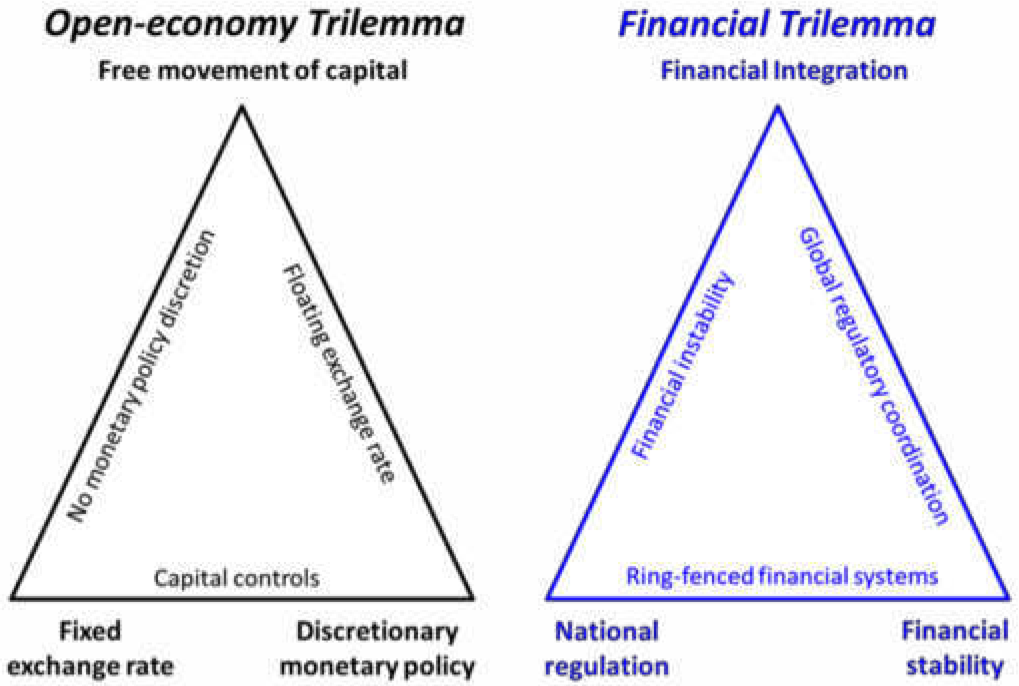
APCF

Contents

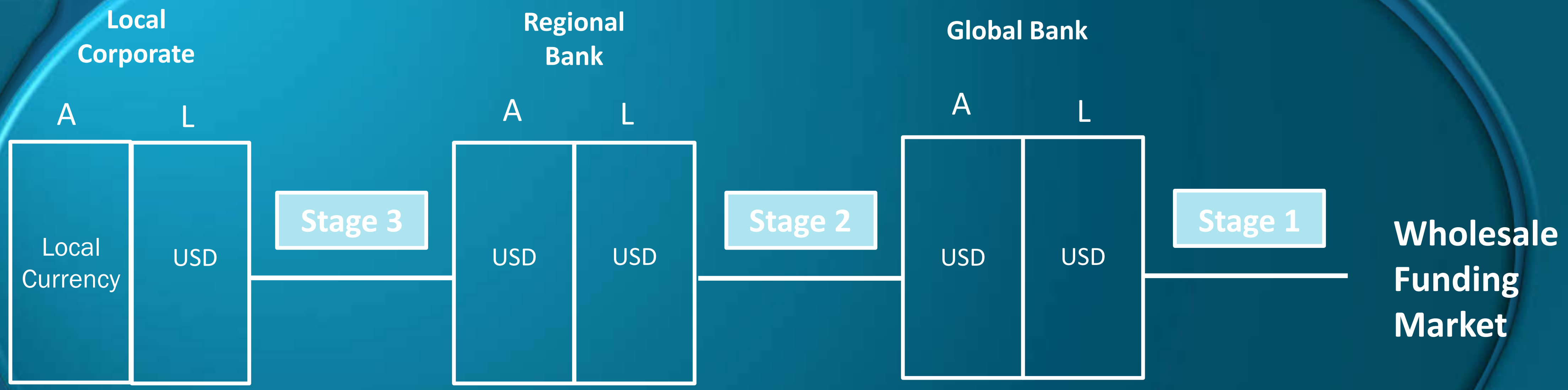
APCF

Collateral in Modern Banking and Finance

Central Bank Collateral Policy vs. Legacy Mandates for Export-oriented Economy: Growing Pains of Emerging Economies



Cross-border Funding



Regulatory Reform and Bank Funding: Basel III Liquidity Regulation

LCR

Objective :

- Liquidity even under very severe liquidity stress over 30 days without government & Central Bank assistance
- Minimum requirements

$$\frac{HQLA}{\Sigma_{30T}(Outflow - Inflows_{max75\%})} \geq 1$$

min(*Cash-Outflow*)$\times$ 0.25

NSFR

Objective :

- Reduce maturity mismatch between funding and assets
- Assets > 1y funded by liabilities > 1y

$$\frac{\text{Available \$ Stable Funding}}{\text{Required \$ Stable Funding}} \geq 1$$

APCF

Central Bank Influences Collateral Markets via:

Scarcity Channel

Central bank takes collateral out of the market affecting collateral availability (supply) and composition

- Repos
- Outright purchases

Structural Channel

Central bank affects the degree of pledgeability of assets in private transactions with an effect on price and quantity

- Eligibility Criteria
- Haircuts
- Access

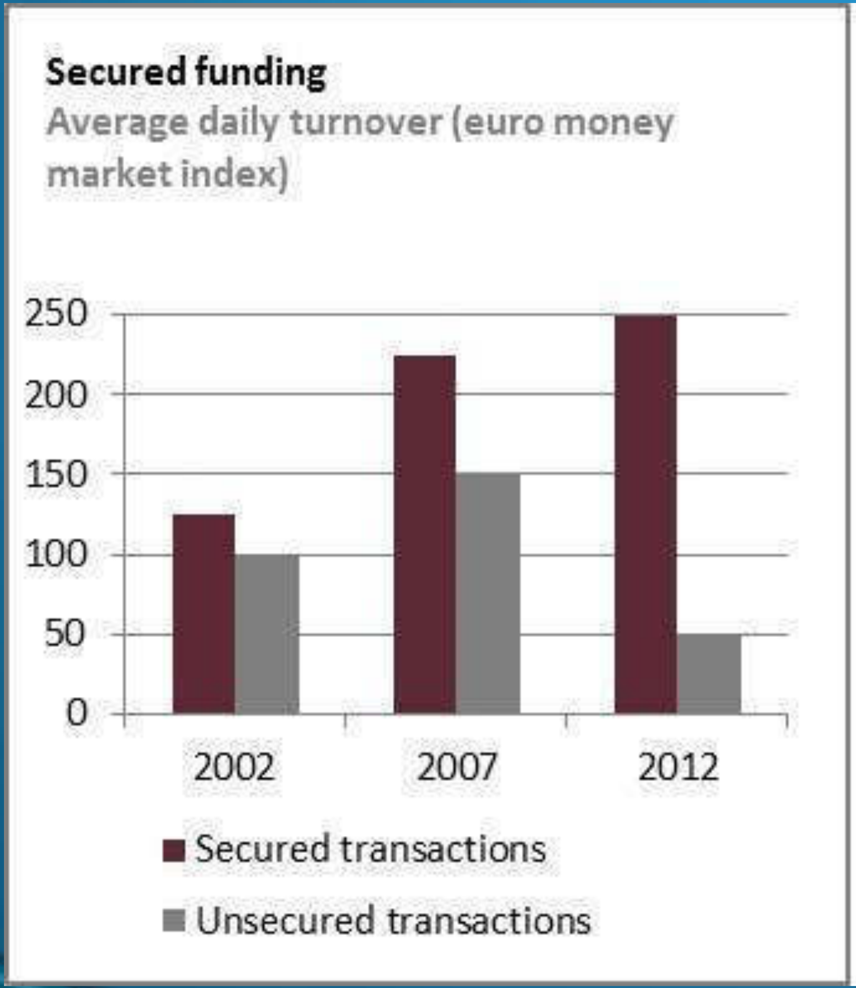
Source: ECB 2018

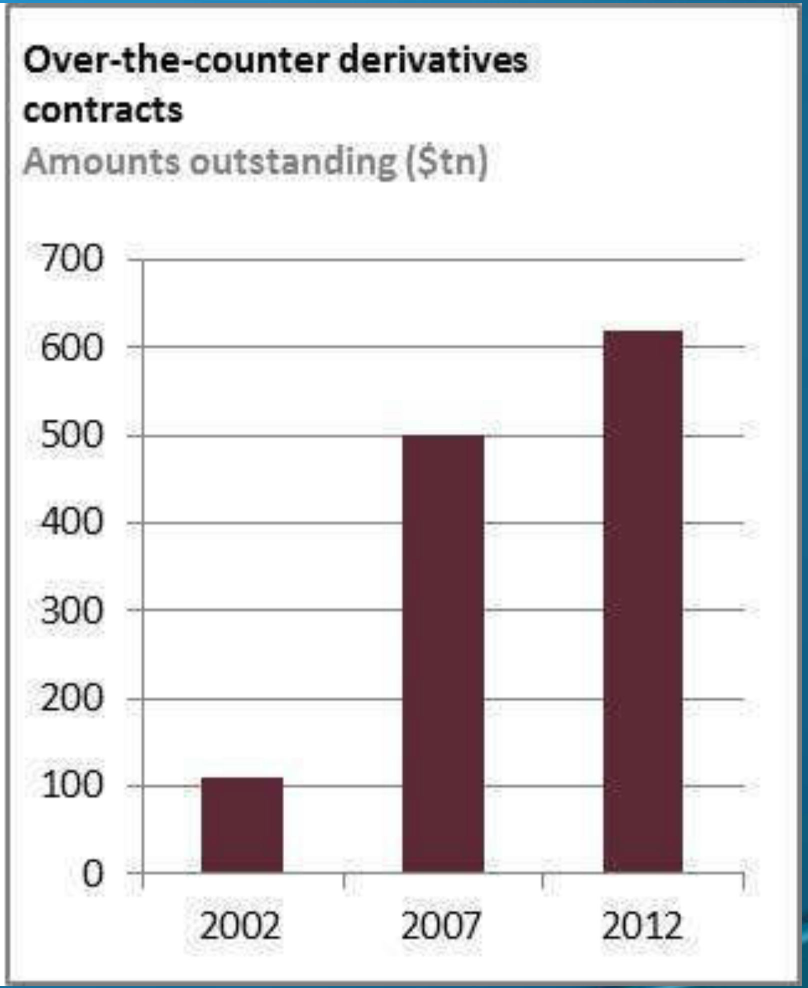
or both

APCF

Secured Funding is Here to Stay

The Fall of Unsecured Funding





Source: Banking & Finance

APCF

U.S. Repo Market Size

U.S. Repo Market Estimates

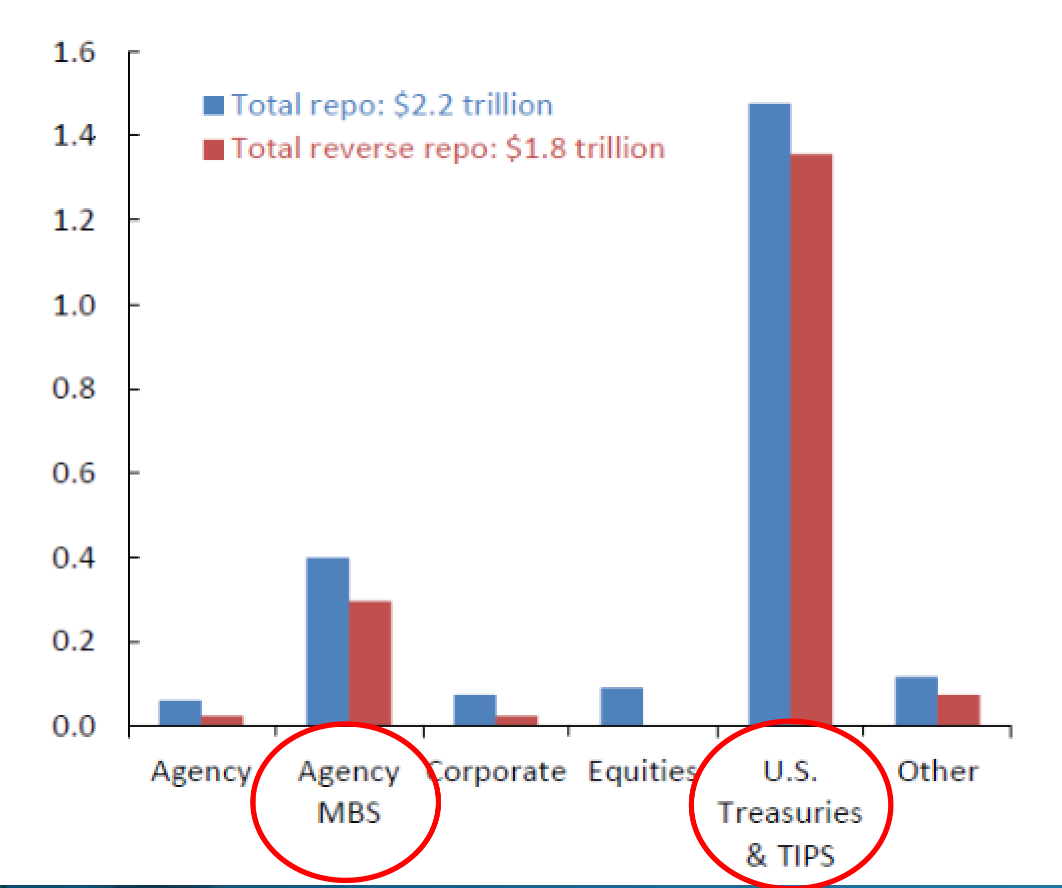
	Total Repo		Tri-Party Repo		GCF Repo		Bilateral Repo	
	Dollars	Percent	Dollars	Percent	Dollars	Percent	Dollars	Percent
U.S. Treasury Securities including STRIPS	2,347	60.49	644	41.34	204	48.11	1,499	79.02
All Other Assets	1,533	39.51	914	58.66	220	51.89	398	20.98
Total	3,880		1,558		424		1,897	

Sources: Federal Reserve Form FR2004 (total repo), Federal Reserve Bank of New York (tri-party repo, GCF Repo)

Notes: Total repo estimates are based on Federal Reserve 2004 data as of Oct 8, 2014.
Tri-party repo and GCF Repo data are as of Oct 9, 2014.
Bilateral repo estimates are a residual amount, equal to total repo minus tri-party repo minus GCF Repo

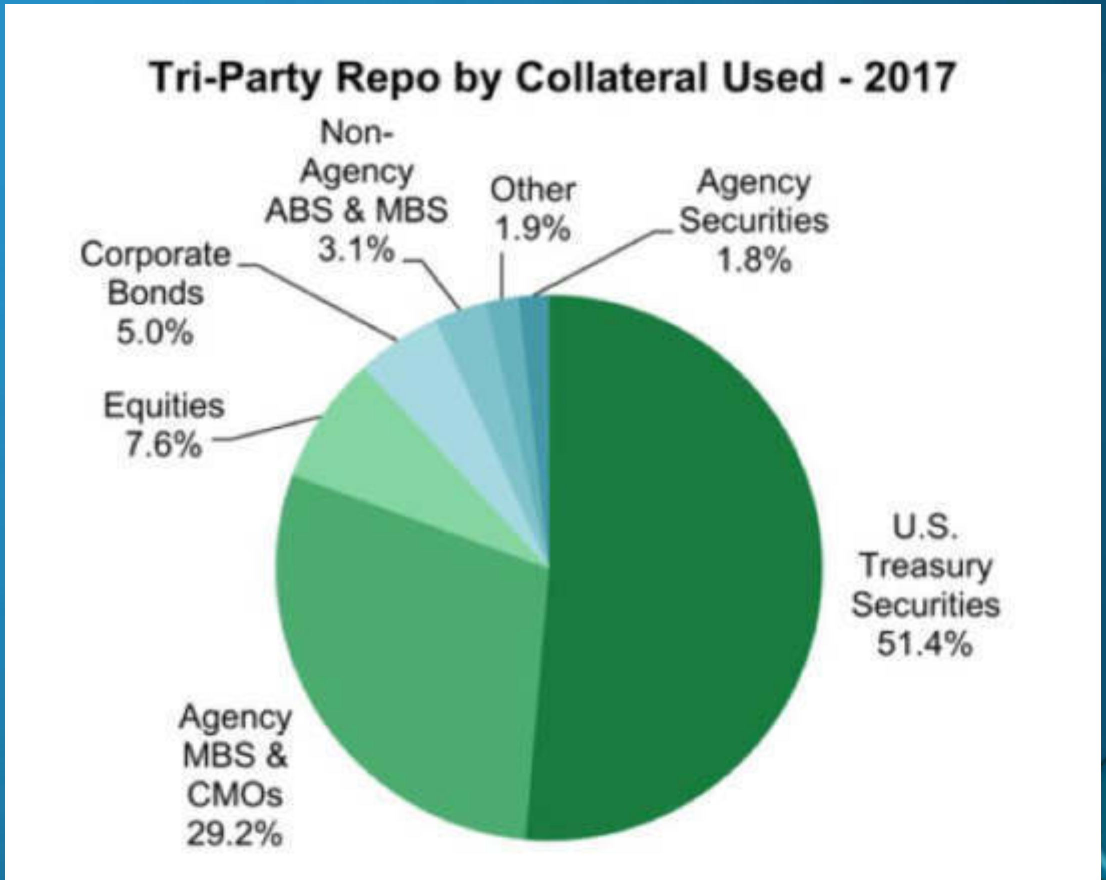
Composition of the U.S. Repo Market & Tri-Party Repo

Total Primary Dealer Repo and Reverse Repo Activity



Source: Federal Reserve Form FR 2004, Jun 2015

Collateral Composition in the Tri-Party Repo Market



Source: Federal Reserve Bank of New York

List of Eligible Collateral in the US

	A – Public sector	B – Private sector financial	C – Private sector non-financial	D – Other
United States	Government, agency, Agency backed MBS/CMO, supranational, Municipal bonds	MM instruments (CP, CDs, BAs), corporate securities, covered bonds, securitized products (non-agency MBS/CMO, CMBS, ABS, ABCP, etc)	Corporate securities, equity, CP	Nonmarketable loans, cash, Term Deposit Facility reserves

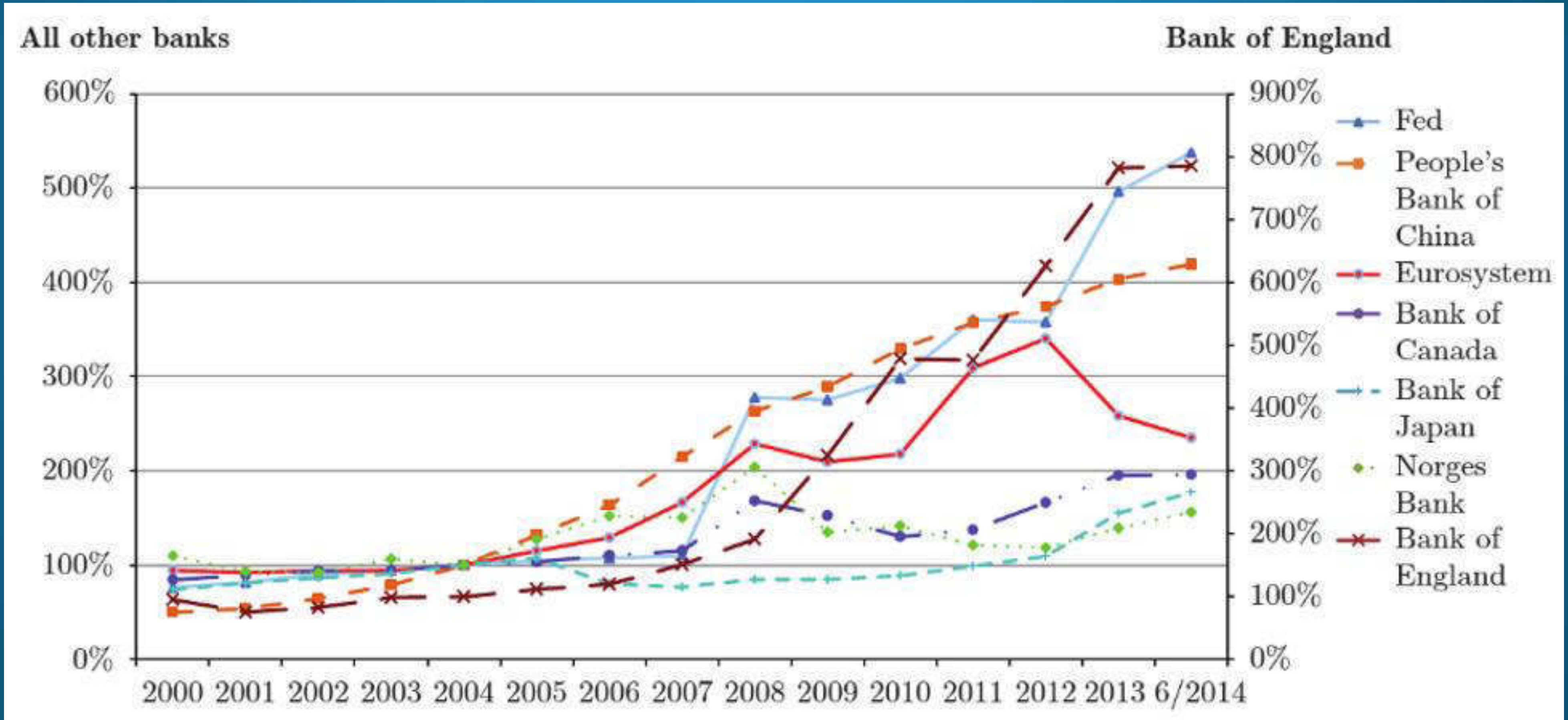
Source: Central bank collateral frameworks and practices, BIS (Mar 2013)

The Euro Experiences

Nyborg, Kjell G. (2017). Collateral Frameworks, Cambridge University Press.

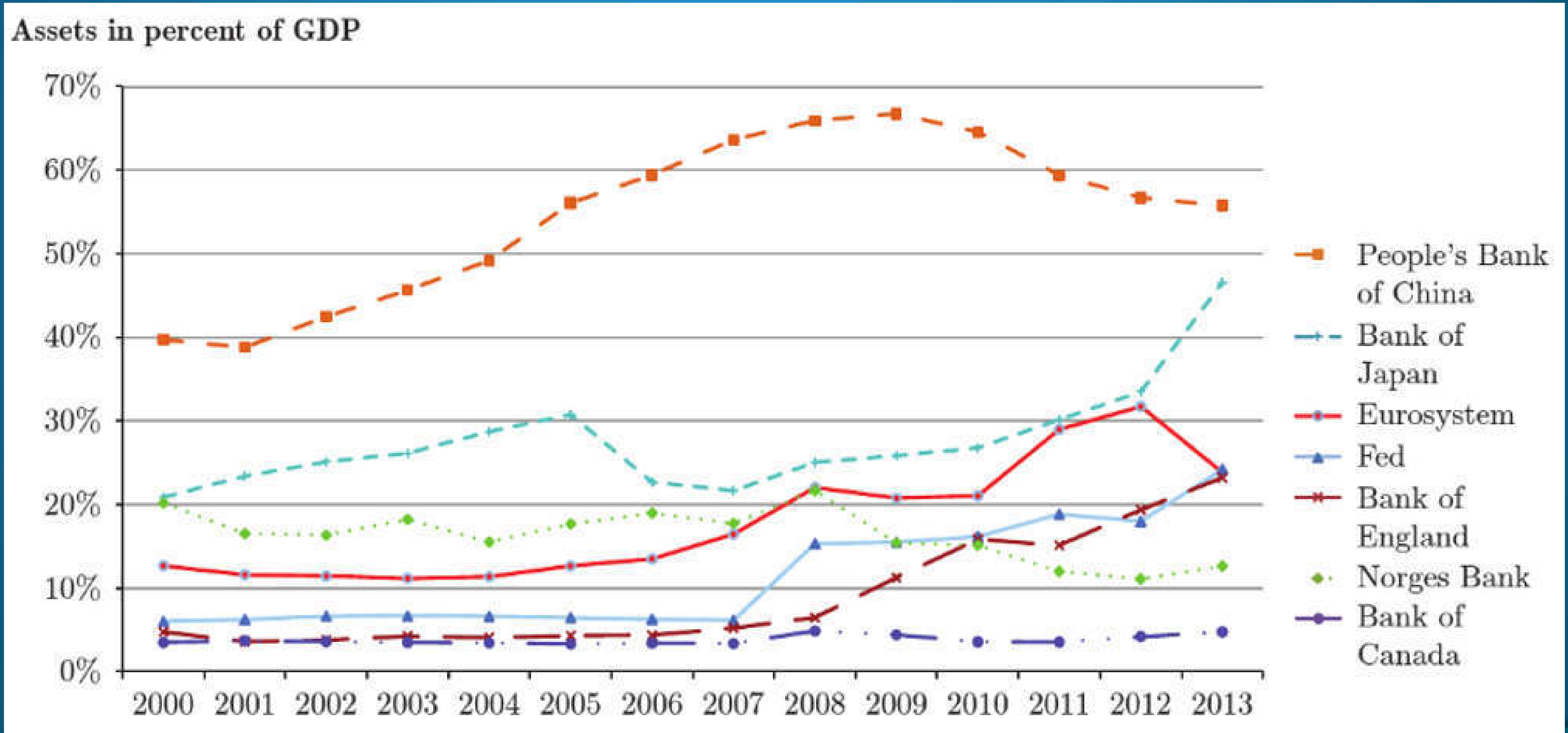
- The process of allocating central bank money in an economy starts with the interaction of the central bank vis-à-vis banks
- The interaction takes place within the central bank's collateral framework
- There exists an inverse relationship between haircuts in repos with the central bank and the secondary market prices of the underlying collateral
- Central bank collateral framework can be used as part of a package of unconventional monetary policies to address crises, but can also cause market distortions and contribute to financial instability.

Central Bank's Balance Sheets over time



Sources: respective central banks' webpages, People's Bank of China - National Bureau of Statistics of China for 2007-2013, Bloomberg, and Trading Economics for other years.

Central Bank's Balance Sheets as a Percentage of GDP



Sources: respective central banks' webpages, People's Bank of China - National Bureau of Statistics of China for 2007-2013, Bloomberg, and Trading Economics for other years.

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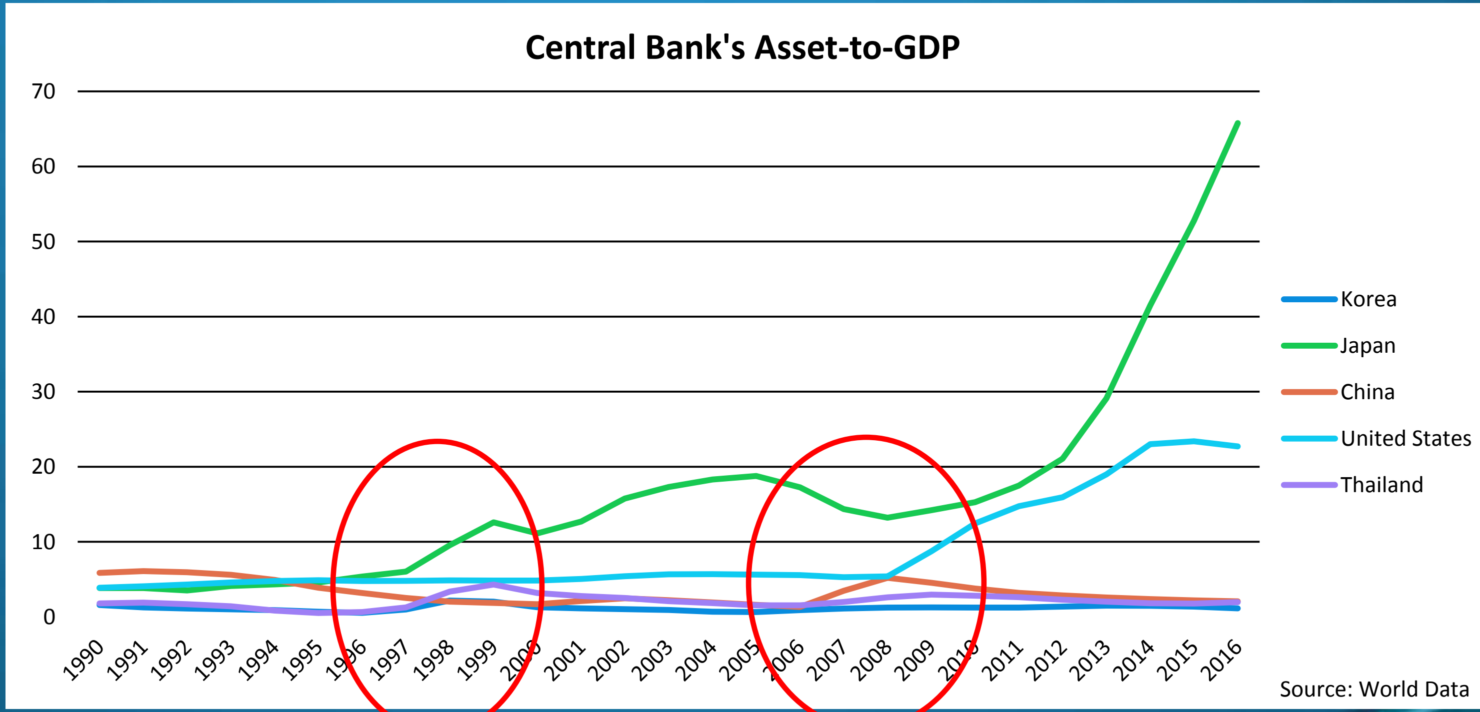
Central Bank Operating Frameworks

- Collateral use has increased post-financial crises through large-scale asset purchases and use of other unconventional policy tools.
- Asset-to-GDP Ratio serves as an indicator of central bank's monetary policy.



Objectives and Constraints of the Eurosystem Collateral Framework

Main Objectives

- Support smooth conduct of monetary policy
- Protect the Eurosystem against losses in case of counterparty default

Main Constraints

- Consistency with broad set of counterparties
- Flexibility combined with continuity over time
- Market neutrality
- No adverse impact on financial stability

Secondary Objectives

- Cost efficiency
- Operational efficiency
- Simplicity
- Transparency

Source: ECB

Broad Eligibility Criteria of Euro Collateral Framework-Monetary policy tool!

- Banks even pledge non-marketable assets such as credit claims.
- Guarantees by governments, corporations, and other entities can be used to provide eligibility to otherwise non-eligible collateral.

  ***** CGIF of ABMI can be extended to eligible collateral pool***
- "Marketable" collateral without such guarantees or external ratings can be made privately eligible through the use of approved in-house ratings.
- Within the Eurosystem, the same collateral is eligible across all operations: main and long-term refinancing operations and the marginal lending facility (discount window) alike.

Eurosystem Cross-Border Arrangements

1. SWAP agreements with the FED, SNB
2. Emergency liquidity arrangements of DNB with HKMA and MAS

3. DTCC-Euroclear Global Collateral's Inventory Management System (IMS)
4. Eurosystem Collateral Management system (ECMS) that will be effective in 2022

Mobilize cross-border collateral and provide control and flexibility to **utilize assets**

Asian Collateral Framework: Narrowly Defined Financial Stability, Less Robust Market Dynamics

- We lack properly defined collateral framework in the region
- We have not realized our core asset's importance as catalysts for market dynamics
- Recognizing its role as core trusts for cross-border transactions via pledgeability, government bonds market needs to be further activated to promote capital market development
- It is essential to understand the structure, functionality, role, reach, and implications of collateral frameworks to build the momentum for ABMI.

Korean Repo Market

Monthly Trading Volumes of Bonds by Type

Unit: billion won

		2002	2006	2008	2010	2012	2014	2016.06
OTC		172,933	252,383	234,055	471,695	498,846	435,411	421,174
	Government bonds*	63,475	138,032	105,159	270,106	284,988	246,223	235,687
	Municipal bonds**	486	580	720	1,130	1,185	1,200	1,215
	Special bonds***	11,494	5,850	10,826	19,043	31,042	25,599	23,341
	MSBs	64,364	75,745	74,495	116,944	123,039	101,023	96,647
	Financial bonds****	26,340	26,516	38,557	52,821	42,801	48,188	52,961
	Corporate bonds	8,256	5,660	4,838	11,651	15,791	13,178	11,323
Exchange-traded		4,115	24,482	30,329	46,999	108,581	112,035	198,287
Total		**177,048**	**276,865**	**264,384**	**518,694**	**607,427**	**547,446**	**619,461**

***: KTBs, National Housing Bonds (Type 1,2,3), Grain bonds, Foreign Exchange Stabilization Bonds, Indemnity bonds**
****: Municipal Development Bonds, Urban Railroad Bonds, etc.**
*****: Bonds of public corporations, Deposit Insurance Fund bonds, Korea Electric Power Corporation bonds, etc**
******: Industrial finance bonds, small and medium enterprise financing bonds, bank debentures, corporate bonds of specialized credit finance business companies, etc**
Sources: Korea Exchange (KRX), Korea Financial Investment Association (KFIA)

- Bonds are mainly traded in the OTC market.
  - No standardized terms and conditions for varying bond types

56% of the bonds traded in the OTC market are government bonds

Institutional Repo Transactions in Korea

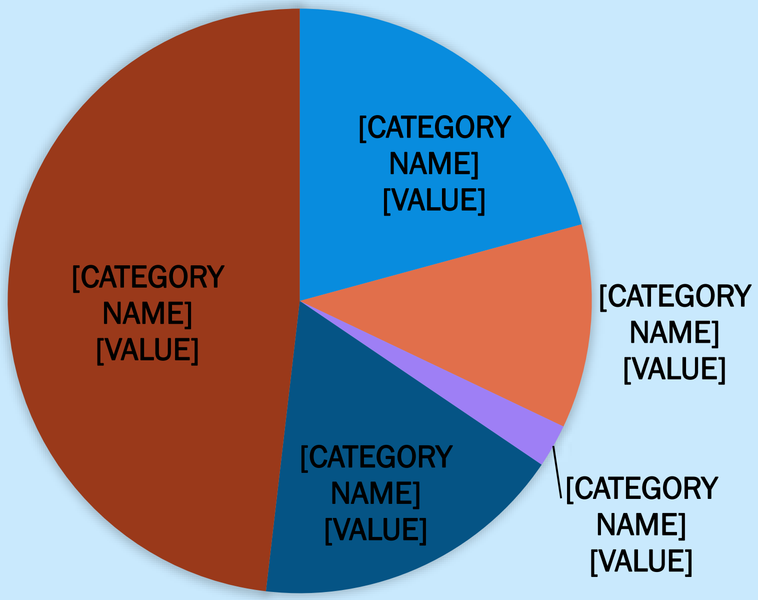
Daily Outstanding Balance

Unit: billion won, %

		2008	2010	2012	2014	2015	2016.06
Repo	Securities companies	1050 [26.0]	2,820 [25.7]	8,159 [34.9]	15,160 [51.3]	22,693 [58.5]	32,418 [64.9]
	Domestic banks	882 [21.8]	1,267 [11.6]	3,264 [14.0]	2,201 [7.5]	4,199 [10.8]	4,266 [8.6]
	Asset management companies	1,043 [25.8]	3,826 [34.9]	1,237 [5.3]	3,192 [10.8]	4,063 [10.5]	6,718 [13.5]
	Securities trusts	-	423 [3.9]	5,861 [25.1]	5,050 [17.1]	3,177 [8.2]	1,624 [3.3]
	Securities finance company	854 [21.1]	1,140 [10.4]	2,513 [10.7]	2,666 [9.0]	2,801 [7.2]	3,136 [6.3]
	Others*	210 [5.2]	1,490 [13.6]	2,361 [10.1]	1,254 [4.2]	1,836 [4.7]	1,757 [3.4]
Total		4,039	10,966	23,394	29,523	38,769	49,919

Notes:
*: Foreign bank branches, insurance companies, merchant banks, non-residents
Sources: Korea Exchange (KRX), Korea Financial Investment Association (KFIA)

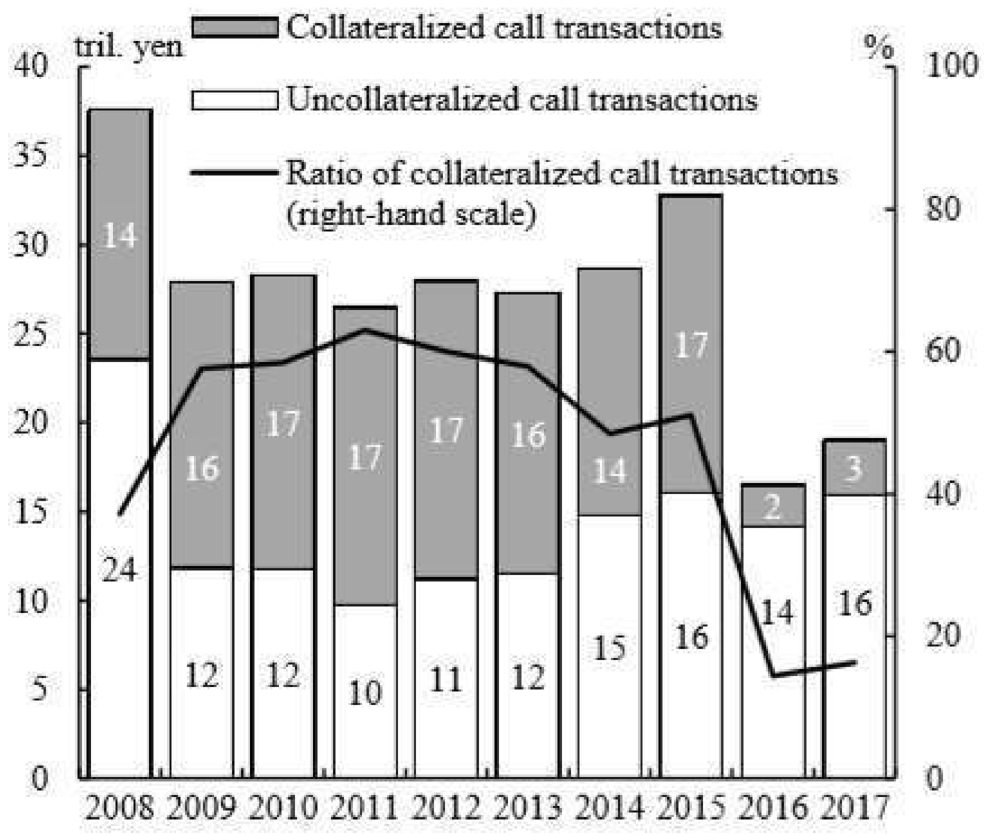
Shares in Institutional Repos by Collateral



Source: Korea Securities Depository

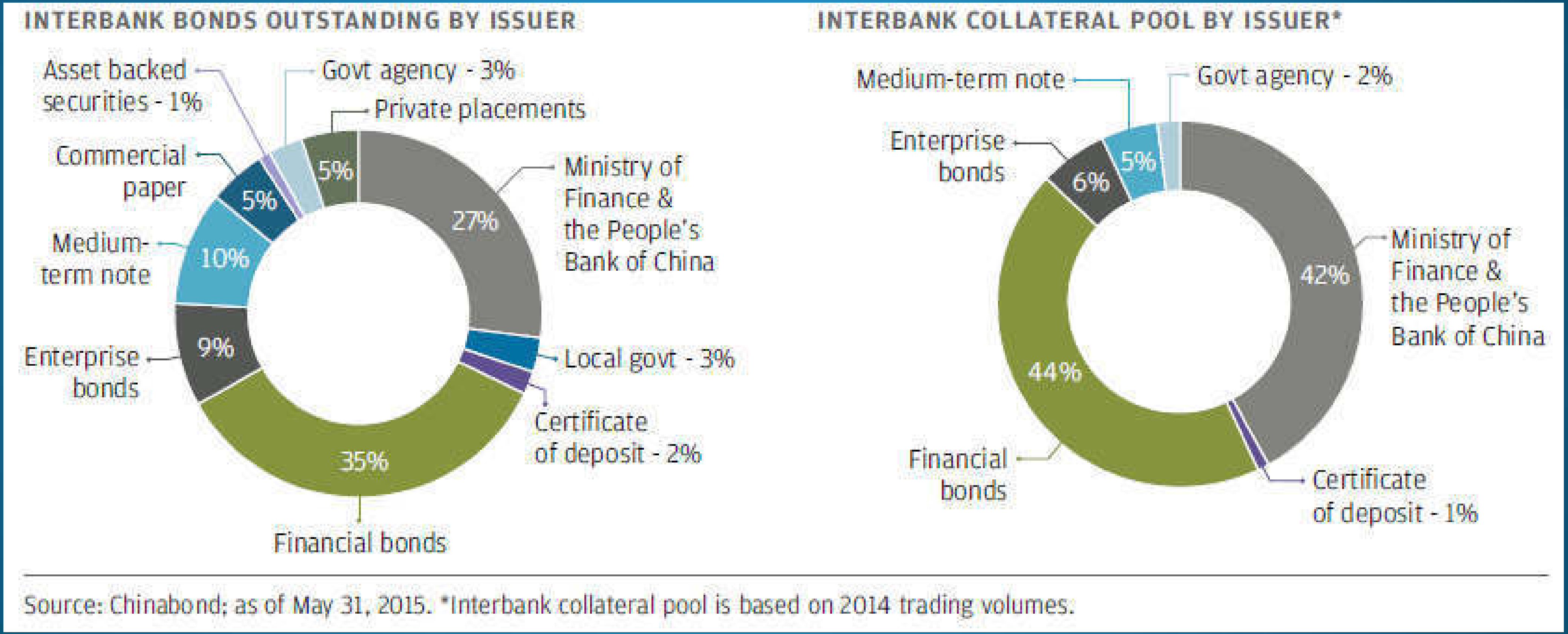
Repo Transactions in Japan

Amount Outstanding in the Call Market and the Ratio of Collateralized Transactions



Source: "Trends in the Money Market in Japan", Bank of Japan

Collateral Use in Repo Markets in China



Collateral is dominated by higher-rated government, policy bank, and state-owned enterprise bonds.

Indonesia

Size and Composition of the Local Currency Bond Market

	Outstanding Amount (billion)						Growth Rate (%)			
	Q3 2017		Q2 2018		Q3 2018		Q3 2017		Q3 2018	
	IDR	USD	IDR	USD	IDR	USD	q-o-q	y-o-y	q-o-q	y-o-y
Total	2,426,060	180	2,611,428	182	2,764,341	185	4.1	12.7	5.9	13.9
Government	2,066,296	153	2,208,882	154	2,345,354	157	3.4	10.7	6.2	13.5
Central Govt. Bonds	2,046,933	152	2,196,915	153	2,306,641	155	4.9	17.0	5.0	12.7
of which: *Sukuk*	329,039	24	354,277	25	378,115	25	10.6	37.2	6.7	14.9
Central Bank Bills	19,363	1	11,967	0.8	38,713	3	(58.3)	(83.4)	223.5	99.9
of which: *Sukuk*	12,626	0.9	11,967	0.8	10,642	0.7	34.0	33.7	(11.1)	(15.7)
Corporate	359,763	27	402,546	28	418,987	28	8.2	25.5	4.1	16.5
of which: *Sukuk*	13,958	1	14,692	1	16,982	1	4.3	29.9	15.6	21.7

( ) = negative, IDR = Indonesian rupiah, LCY = local currency, q-o-q = quarter-on-quarter, Q2 = second quarter, Q3 = third quarter, USD = United States dollar, y-o-y = year-on-year.
Notes:
1. Calculated using data from national sources.
2. Bloomberg LP end-of-period LCY–USD rates are used.
3. Growth rates are calculated from an LCY base and do not include currency effects.
4. The total stock of nontradable bonds as of end-September stood at IDR230.5 trillion.
Sources: Bank Indonesia; Directorate General of Budget Financing and Risk Management, Ministry of Finance; Indonesia Stock Exchange; and Bloomberg LP.

- Impediments or Restrictions:
  - Limited Opportunities to utilize bond holdings and the repo market
  - Insurance companies and pension funds are prohibited from engaging in repo transactions

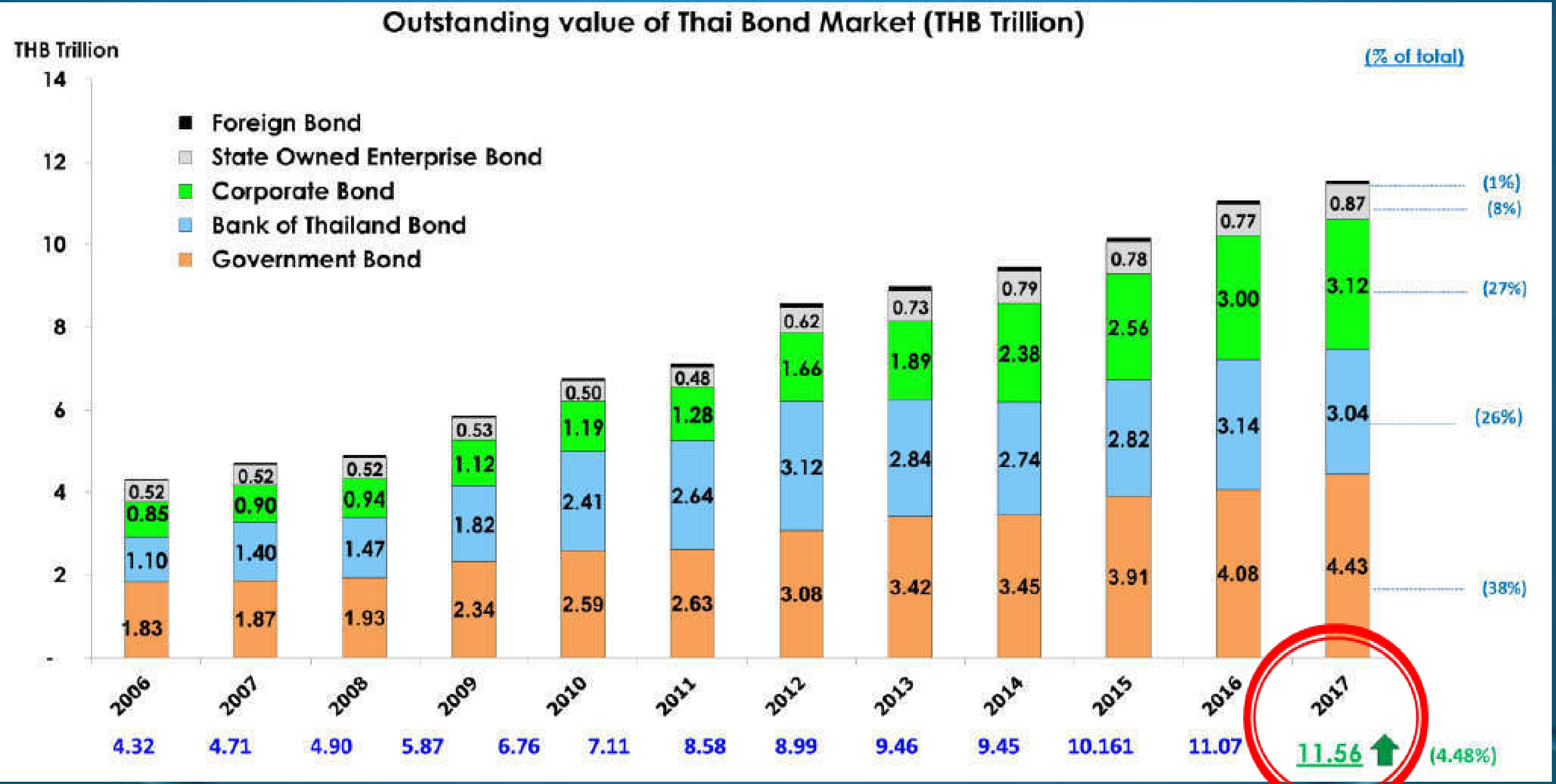
Development of the Malaysian Repo Market

Despite the Malaysian bond market is the 3rd largest in Asia, its ***repo market for bonds is practically non-existent***.

BNM's initiatives

- **BNM's new initiatives for enhancing repo market** (as of May 2019)
  - Increase the availability of off-the-run bonds to be borrowed via the repo
  - Collaborate with regulators to enhance the delivery mechanism for Malaysia Government Securities (MGS) futures settlements
  - Simplify foreign exchange transaction and documentation process
  - Facilitate the market-making capacity of Appointed Overseas Offices to ensure sufficient access to ringgit prices

Outstanding Value of Thai Bond Market



Source: Thai Bond Market Association

Current Market Dynamics in Select ASEAN + 3 Economies

	Sale & purchase (Classic or buy and sell backs), borrow & lend, and pledge	OTC vs. Exchange	Foreign participation permitted
China	Pledged repo (turnover approximately 96.6%); Classic repo (turnover approximately 3.4%)	OTC (mainly), Exchange	N
Hong Kong	Classic repo; Borrow and lend also exists	OTC (mainly), Exchange	Y
Japan	Borrow & lend (mainly), Classic repo (Gensaki market)	OTC	Y
Korea	Classic repo	OTC (mainly), Exchange	N
Indonesia	Buy/Sell-back (mainly) & Classic repo	OTC	Y
Malaysia	Classic & Buy/Sell-back	OTC	Y
Philippines	Classic repo	OTC	Y
Thailand	Classic repo (mainly); Sell/buy back structure exists but is not widely used	OTC	Y
Vietnam	Classic repo	Exchange	Y

Source: ASIFMA–ICMA Guide on Repo in Asia (Aug 2015)

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Thai Bond Market Classified by Types

Unit:THB Mln

Type	2016	2017	Growth(%)
Government Bond	4,024,927	4,298,872	6.81%
Treasury Bills	55,732	133,232	139.06%
State Owned Enterprise Bond	765,420	869,549	13.60%
Bank of Thailand Bond	3,136,029	3,041,769	-3.01%
Long term Corporate Bond	2,671,617	2,743,095	2.68%
Commercial Paper	332,024	380,659	14.65%
Foreign Bond	79,845	94,177	17.95%
Total	11,065,594	11,561,352	4.48%

Source: Thai Bond Market Association

- Treasury bills outstanding in 2017 jumped to 139.06% from 2016, due to larger issuance to finance mid-year additional budget deficit.
- The outstanding of other types of bond slightly increased, except for the BOT bond which decreased by 3.01%.
- The total bond outstanding grew by 4.48% in 2017.

Asian Cross-border Collateral Arrangement

- **MAS** also established **cross-border collateral arrangements** in its own independent view about collateral.
- **BOJ** began to accept in 2009 US, UK, German, and French government securities denominated in their **respective currencies**.

Central Bank	Bilateral CBCA	Counterparties
MAS	Yes	Malaysia, Thailand, England, France, Germany, Netherlands, US, Japan
BOJ	Yes	Philippines, Indonesia, Singapore, Thailand

Aspects of Collateral Framework: Some Bilateral Arrangements

	Uniform or differentiated	Narrow or wide (issuer type)	Earmarked or pooled	Counterparties
Eurosystem	Uniform	Wide	Mostly pooled	Wide 1749 OMO, 1979 MLF, 2455 DF
Japan	Uniform	Wide	Pooled	Wide but varies with facility 51 repo, 271 pooled
Korea	Differentiated	Narrow for OMOs Wider for SF	Earmarked for OMOs Pooled for SF	Narrow for OMOs Wider for SF
Singapore	Differentiated	Narrow (narrower for OMOs than for SF)	Earmarked	Primary Dealers only for OMOs All RTGS participants for SF

As of end-July 2012

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CBCS vs. Cross-border Repo: CBs Replacing the Role of Commercial Banks in the Capital Market?

- Central banks currency swaps (CBCS) are contractual setups that deal with commercial banks’ foreign liquidity risk
- CBCS are US measures to shield it from external financial instability, but they are contractual arrangements
- CBCS are more fragile and reversible than their institutional counterparts.
- ASEAN+3 need to secure market foundations for liquidity needs and financial stability

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Central Bank Swap Arrangements vs. Cross-border Collateral Transactions

- In practice, central bank swap arrangements have become permanent liquidity facilities around the world, adding to overbanking and currency mismatches
- **(Swaps and moral hazard)** Banks expect CBs to provide them with FX under stress / Lenders to foreign banks expect repayment with funds borrowed from the central bank.
- Private participants need to overcome currency mismatches via market operations, e.g. repo collateral transactions

Multilateral Currency Swap + Collateral Pool = New Bond Market Momentum

- ASEAN opens door to China, Thailand and Indonesia push for alternative to greenback
- We need to uphold the rules-based multilateral trading system and open regionalism
- Since Chiang Mai's backstop is secured, normal operations need to utilize cross-border collateral transactions.
- Foreign Aid: It is important that countries receiving support be able to choose the currency they want, non-US dollar support
- **Cross-border collateral arrangement by central banks** can boost market-based support in addition to emergency swap arrangements

Regulatory Jungle: Internal Constraints against Cross-border Securities Transactions in Korea

- Types of cross-border securities transactions by KSD (Korea Securities Depository)

  - **Primary market**

  - Securities issuance of domestic companies in foreign market
  - Securities issuance of foreign companies in domestic market

  - **Secondary market**

  - Residents' foreign securities investment
  - Non-residents' domestic securities investment

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Types of Securities Collateralization

	Fiduciary transfer of title for security purposes	Repo (sale and repurchase agreement)	Lending for consumption
Transfer of title	Limited External – Y Internal – N	Y	Y
Security provider's right to get back the collateral	Y	N	N
Exception concerning withholding from bonds which are subject to withholding tax of foreign corporations	N	Y	Y
Prohibition of a foreigner or a foreign corporation from trading listed securities outside the securities exchange	Y	N	N

Source: Jon, Woo Jung, "Limitations of Current Korean Law on Collateralization of Securities and Suggested Ways to Facilitate the Collateralization"

Limitations to Using Fiduciary Transfer of Title in Korea

- Fiduciary transfer of title is constrained by several financial regulations;

  (i) the secured creditor is required to pay the income tax in proportion to the holding period of bonds.

  (ii) a foreigner or a foreign corporation (foreign entity) is prohibited from trading listed securities outside the securities exchange market.

- Like repo and lending for consumption, exceptions from those financial regulations should be applied to fiduciary transfer of title.

Fiduciary Transfer of Title for Security Purposes

- In theory, rehypothecation of collateral can be made by;
  (i) fiduciary transfer of title for security purposes
  (ii) repo (sale and repurchase agreement)
  (iii) lending for consumption under current Korean law.

- Why fiduciary transfer of title should be used as a solution to facilitate cross-border collateral transactions?
  – In the case of repo and lending for consumption, the ownership of collateral is transferred to the purchaser or the borrower so that they may rehypothecate collateral.
  – In case the borrower goes bankrupt, the lender might not be able to retrieve his or her assets from the bankrupt borrower as the lender lacks ownership.
  – **However, in the case of fiduciary transfer of title, a secured creditor may rehypothecate collateral.**

Disclosure Practices and Credit Assessment Approaches

	General criteria for eligibility	Haircuts / initial margin (baseline)	Individual securities' actual eligibility and effective haircuts or initial margins	Credit assessment
Eurosystem	Published	Published	Individual eligible securities are published	Both internal and external accepted, subject to common framework (ECAF)
Japan	Published	Published	Not published	Internal
Korea	Published	Published	Not Applicable (no discretionary selection of securities)	Internal
Singapore	Published for SGD assets; not for foreign currency assets under cross-border collateral arrangements (but available to counterparties upon request)		Details on individual securities are not published, but are available to counterparties upon request	Internal

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Central Bank Collateral Policy: Core of the Monetary and Financial System

Asian Collateral Framework	Eurosystem Collateral Framework (ESCF)
Heavily segmented	Too accommodative (pro-cyclical rating, haircut)
Narrowly defined and tightly managed	Without proper link with overall market trends and dynamics

- Central Bank Collateral Policy influences capital markets, financial systems, and the economy.
- Central bank money is issued against collateral on terms defined by the central bank's collateral framework.

Global Central Banks are Hurting Financial Stability by Sticking to QE

- Too lax collateral framework while Asia remains in the dark
- QE objective for survival? ***Collateral use of bonds are suppressed in Asia.***
- What needs to be done: Bond's use as collateral needs to be emphasized over its use as funding vehicle for fiat money
- ECB QE is taking advantage of Euro's dominant collateral position while eventually hurting the global financial stability

Too Little for Asia, Too Much for Euro

More assets are pledged to creditors

Fewer free (unencumbered) asset

Increasing cost of borrowing

Weaker liquidity position / downgrading

A vicious circle for the interbank market

Collateral Framework of Eurosystem, FED and Asia

- Asia needs lots of preparation and investment to provide grounds f or market development
- Region-wide collateral recognition by central banks as well as market infrastructures for the region are required
- APCF is dedicated to raise consciousness among member countries on the importance of collateral use of eligible assets to improve financial stability and market development

Practical Considerations: Pooling Eligible Collaterals

- Banks can pledge eligible collateral in a collateral pool instead of enlisting multiple accounts for each CSDs.

Efficient as settlement time decreases → Diversifies eligible collateral → Resolves mobility issues domestically and internationally

Potential Benefits and Challenges of Pooling

Benefits

- Streamlining service coverage through integration between global collateral management, settlement, and asset servicing.
- Simplified administration and operational processing of securities.
- Improved efficient use of assets as collateral rather than remaining trapped in a particular jurisdiction.

Challenges

- Development of common requirements for eligible collateral
  - Custody Segregation Requirements, Settlement Discipline
- Development of interoperability between different collateral pools
- Complex legal contracts
  - Infrastructures, Custodians

Tendency to Pledge Less Liquid Collateral: Asymmetric Collateral Practices

- Central banks can influence the relative cost of using **liquid vs less liquid eligible assets** through their choice of valuation method, haircuts/initial margins and pricing of lending facilities.
  - **Uniform frameworks**: haircuts or margins affect this relative cost
  - **Differentiated frameworks**: an additional layer of cost can be imposed by making the facilities that accept less liquid collateral more expensive
- Financial sector regulations may also affect counterparties' incentive to use less liquid collateral.
- Overall impact of regulatory changes on central bank counterparties' incentives to use different types of collateral will change over time

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Effects of Foreign Collateral on CB Cum Supervisor

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

Source: Cross-Border Collateral and its Impact on Bank Supervision (DNB, Jeannette Capel)

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Cross-border Use of Collateral in RTGS

- Banks often rely on collateralized intraday liquidity from the central bank in order to be able to effect payments in a real-time gross settlement (RTGS) system.
- If a bank is holding insufficient eligible collateral in a particular country, it may have to delay payments, increasing a liquidity risk to the system.
- The problem is much more serious for global banks as they face a mismatch between the location of its collateral holdings and liquidity needs.
- **The liquidity risk arising from such a mismatch may be mitigated by allowing cross-border use of collateral.**
- **Going forward, regional collateral framework needs to be linked with the global network to provide robust risk management capabilities.**

Multilateralization

- Central Banks in the region need to acknowledge its member countries' government debts
- Comprehensive Eligibility criteria need to be worked out
- Inclusive collateral pool can be lead to financial stability (lower funding costs, overcome polarization, better profit)
- Some market-driven haircut practices are called for
- Liquidity pull-pull back events can be dealt with
- Outside money vs. Inside money: Heavy reliance on outside money is a sign of frictions in financial markets (commercial banks drive the system)

Prerequisites for Boosting Cross-border Collateral Transactions

- Changes in the policy framework with shifts in the mindset of policymakers
- Openness and collaborative discussions among diverse members
- Harmonization of regulatory interpretation of collateral in a broader context
- The most up-to-date clearing and settlement facilities with different time zones and poor initial conditions
- Governance changes and institution-building for the long-term efforts
- Technical assistance from international organizations

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Why Central Banks in the Region Should Collaborate for a New Collateral Framework

- Current collateral framework is out of touch, fragmented, and idiosyncratic.
- Cannot use eligible collateral for cross-border transactions, and market integration cannot go beyond basic market functioning
  - FX Funding, Reserve Accumulation, and Bond Issuance
- Such dichotomous system needs to evolve into an integrated market environment for better risk management and smoother funding exercise for business in the region.

CB Collateral Framework is the Cornerstone for Activating the Asian Collateral Market

1 **Central banks' collateral policies have evolved through time in response to changing operational needs and financial market developments.**

- Increased acceptance of more asset types, cross-border collateral, increased granularity of haircut/initial margin schedules.
- Global coalition for cross-border collateral utilization is required to prepare for the future
- Fiat trust can only be maintained by enhancing the cross-border pledgeability of core assets.

2 **Asia has shown little progress: Central banks need to collaborate on fostering multilateral collateral arrangement, e.g., eligibility criteria.**

3 **RSIs (Regional Settlement Infrastructures) are necessary to improve cross-border collateral fluidity, open architecture.**

4 **If the value of collateralization of securities is neglected, it is hard to expect resilience in the capital market.**

Rationale for Enhancing Collateral Eligibility

- Even with increasing importance of collateral for risk management and steady funding, CBs have polarized, jurisdictional framework that interfere with cross-border market activities on collateral
- We need to secure capital market in the region to support growing importance of Asian economies in the world.

→ Integrate markets in the region via Coherent CB Collateral Framework

Global Collateral Alliance DTCC-Euroclear-Asiaclear

- Boosting collateral fluidity worldwide is key to save the global financial system
- We need to link Asia with the ROW
- Broad recognition of collateral on a regional basis is badly needed
- Identification of collateral pool and necessary infrastructure are crucial to jumpstart the sagging global economy
- Legacy institutions need to gather for collaborative solutions

Roadmap for an Inclusive Collateral Pool

1. CBs in the region prepare eligibility criteria for collateral pool

2. Market participants begin to use eligible collateral pool for cross-border repo and securities lending, etc

3. Capital market infrastructures for clearing and settlement is promoted with the help of Euroclear, Clearstream, etc.

4. Significantly more assets will be utilized for cross-border transactions and market development for financial stability

5. Balanced global financial system that does not generate massive capital flow volatility

Action Plan 1

Objective	Activities to be implemented
1. Collaboration among central banks to develop cross-border eligible collateral pool	• CBs need to collaborate on eligibility criteria and build collateral pool for cross-border transactions • Explore in-depth joint projects, harmonizing supervisory regulations and guidelines to overcome existing barriers toward building the Asian collateral system • Actively organize roundtable discussions via APCF to attract all potential stakeholders in the joint efforts

Action Plan 2

Objective	Activities to be implemented
2. Boost collaboration on joint projects for capital market infrastructures via TA: develop inclusive collateral ecosystem	• Provide multi-level professional training on the collateral management, pro-active regulations for repo markets, etc.
	• Explore feasibility of on-site capacity- building program in collaboration with existing facilities under ABMI.
	• Strengthen personnel exchanges: Enhance the capacity through personnel exchanges, mutual visits, and exchange of scholars.

Action Plan 3

Objective	Activities to be implemented
3. Enhance capacity-building and professional training among APCF member countries	• Activate knowledge-sharing on member state's current collateral system using ABO platform. • Establish executive training courses on collateral via forming an alliance of training centers around the region (e.g, Korea Banking Institute, Swiss Banking Institute) • Host the joint seminar, policy dialogues or webinar with other institutions on a regular basis (MOU between APCF and IMF, ASIFMA, BIS, EMEAP, SEACEN, etc)

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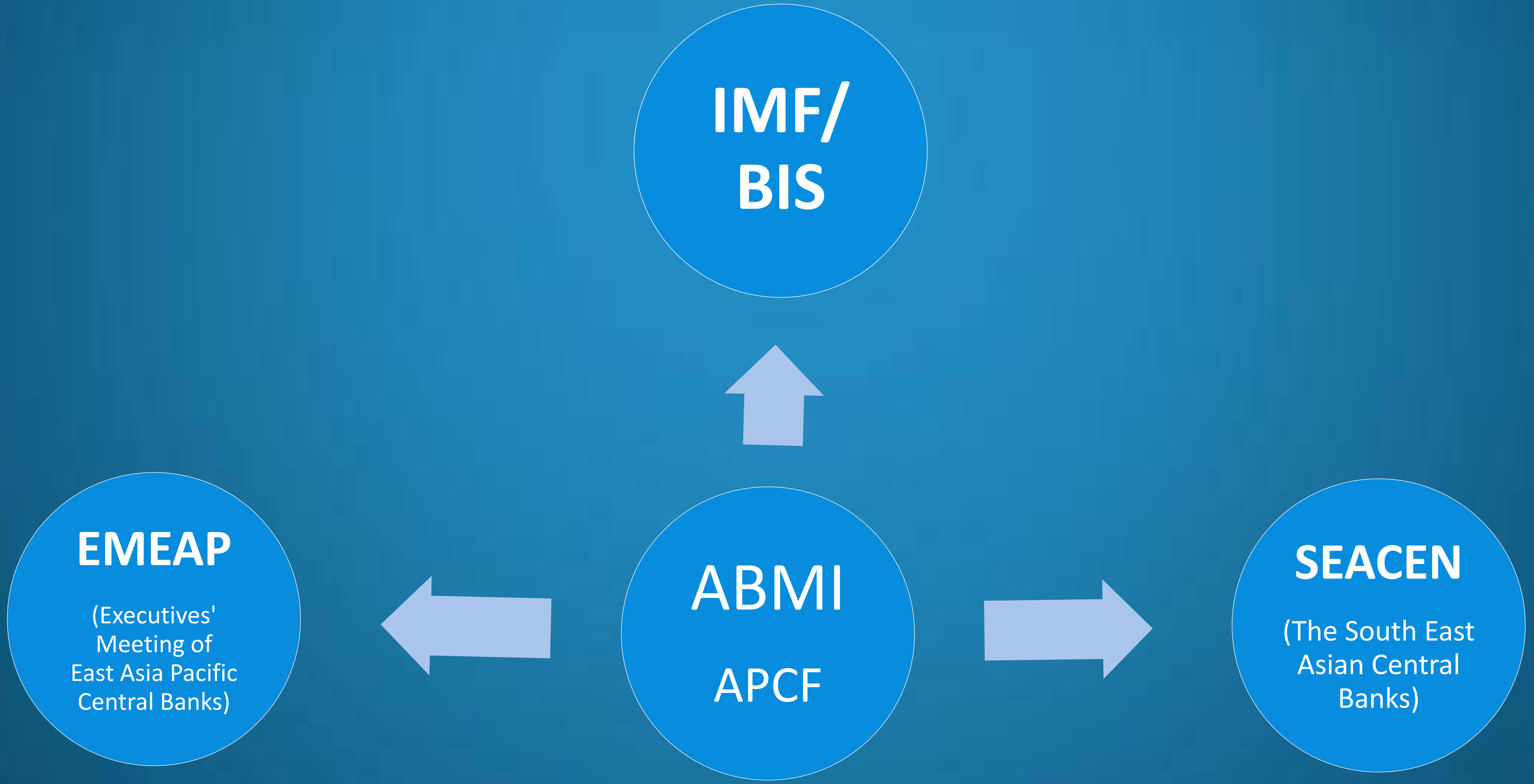
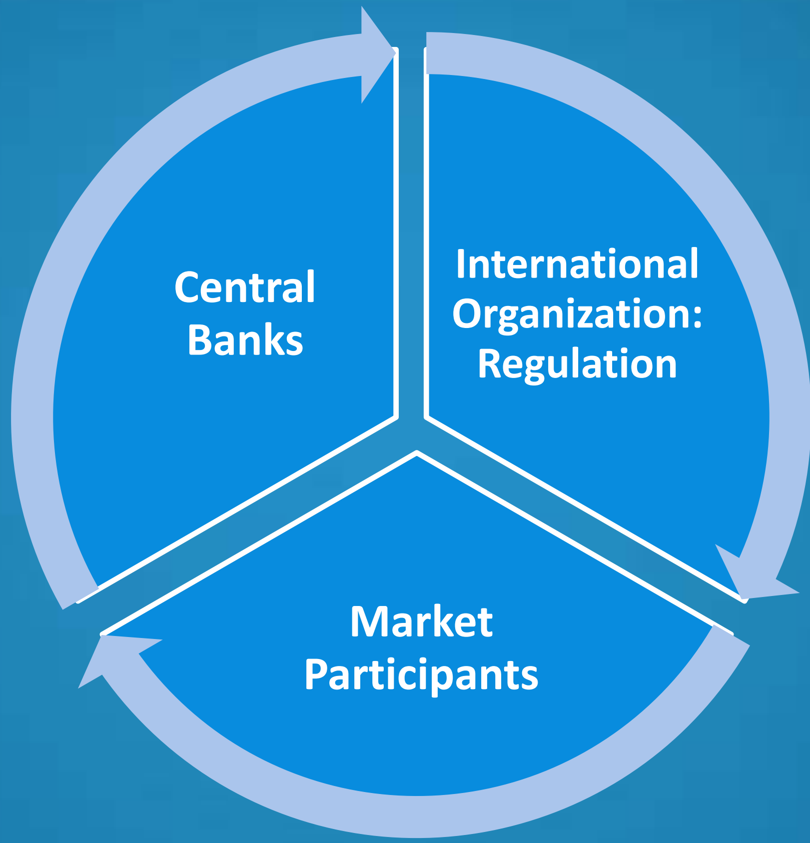
Securing International Cooperation on Building the Asian Collateral Ecosystem





Core Support for the Global Financial System

Three Pillars for the Asian Collateral Framework under the ABMI

Wrapping up,

- Unlike CBs in other regions, Asia's CB collateral framework remains outdated, fragmented, and has been suppressing collateral utilization for market based funding and better risk management
- Multilateralization of bilateral collateral arrangements needs to be undertaken by central banks in the region:
  1. Formulating collateral eligibility criteria
  2. Allowing an eligible collateral pool for cross-border transactions
  3. Establishing necessary market infrastructures for clearing and settlement of cross-border securities transactions.
- By jumpstarting the basic building blocks of the financial system, ABMI can gain market momentum and its benefit can be fairly shared among member countries

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Panel discussion - 2019. 10. 18

How Asia can increase more cross-border collateral and Repo transactions?

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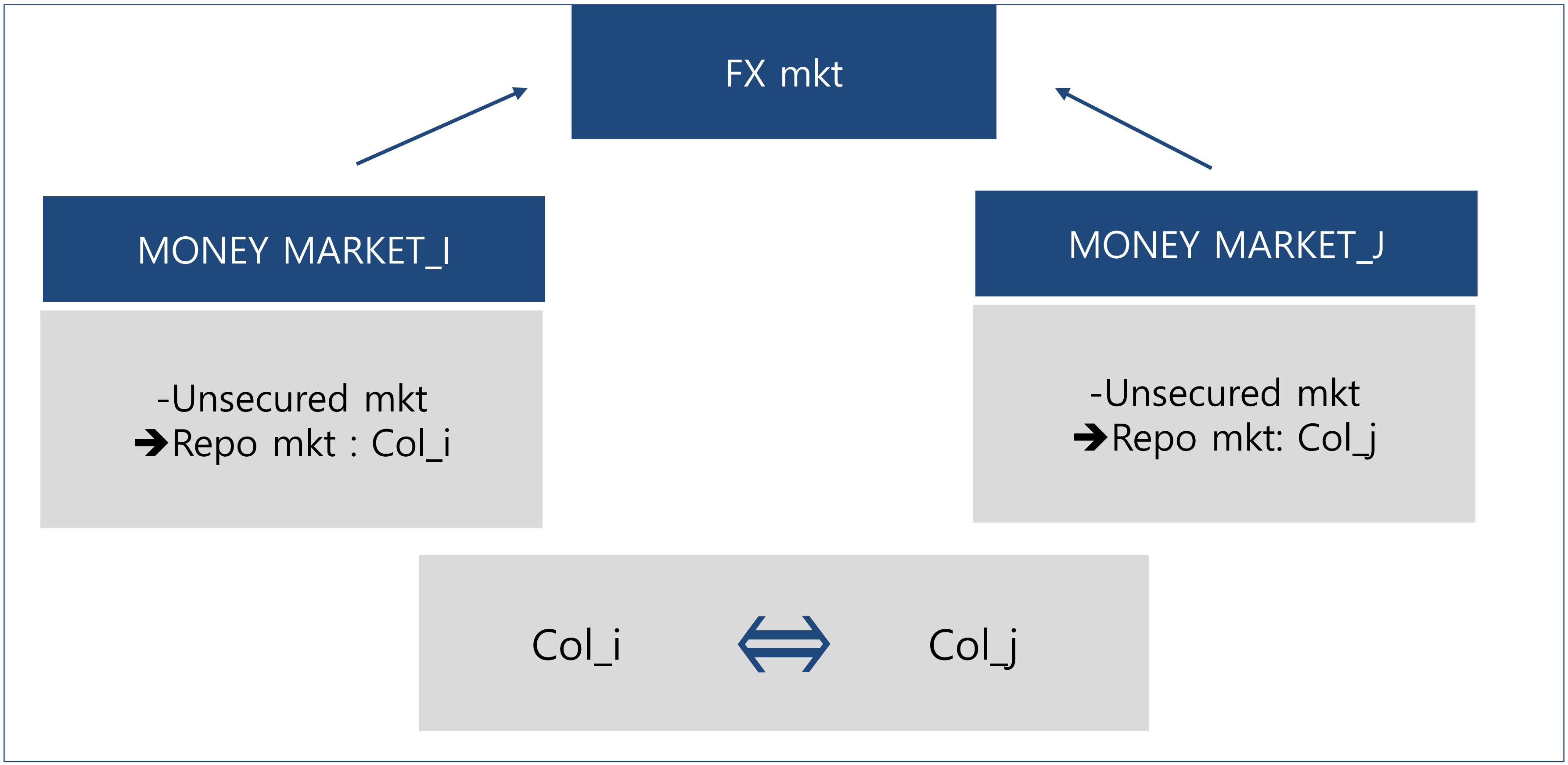
CBCR in ASEAN+3 Framework



Col_i: Collateral denominated in a I currency

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I. CBCR in Asean+3

- **Cross Repo : Cross Currency Repo* denominated in different currencies and among residents and non-residents**
- **CBCR has the cash leg and collateral leg denominated in diffent currencies**

  - Cash: Principal, interest rate, exchange rates

  - Collateral: maturity, value, hair-cut(discount rate)of securities

    pledged, type of securities

I. CBCR

------------------------ (glossary)---

*Cross Currency Repo : a Repo transaction** in one currency against eligible securities where the eligible securities and cash involved are denominated in different currencies

**(traditional) Repo: money market instrument where one party sells high-quality, liquid fixed income securities(gov't bonds) to another, while committing itself to repurchase them at a pre-specified price at some future date

II. How to Establish a Common CBCR in Asean+3?

- **Create "Asean+3" repo market platform(CBCR)**

  - 1) Specifics of CBCR market

  - 2) Collateral

  - 3) Trading and settlement system

- **Specifics of CBCR market:**

  - GC(General Collateral) vs Special Collateral

  - Triparty vs Central counterparty cleared

  - Currency Basket:

II. How to Establish a Common CBCR in Asean+3?

- **Collateral**

  - Collateral Assets(CA)

  - High Quality liquid Assets(HQA)

  - High Liquid Assets(HLA)

- **Trading & settlement system : ATS(Automatic Repo Trading System)**

III. Discussion

- **Discussion 1: GC market triparty vs central counterparty cleared**

  - Funding rather than acquiring specific securities

  - Currency basket={USD, Euro, Pound, Asean+3 currencies,...}

- **Discussion 2: Collateral: eligibility criteria(type, maturity, valuation, hair cut)**

  - Apply the same standard each central bank use its monetary operations

  - Type: government bond

  - Maturity: the most liquid :the remaining maturity less than 5 yrs)

  - Valuation: determined according to the fx markett

  - No hair cut for the standard collateral basket

III. Discussion

- **Discussion 3: trading and settlement system**

  - Electronic trading platform with a direct link to 1)the CSD(central securities deposit) with the collateral and 2)

  to the RTGS(real time gross settlement system) for transactions

  3) settled via a correspondent bank with foreign currency leg

  - No differential treatment between non-residents and residents with respect to CSD and RTGS access

- **Discussion 4: reuse of collateral across currency**

  – Expand the use of collateraltransactions could reduce costs and improve market access for market participants.

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III. Discussion on regulations on convertibility

- **Exempt for CBCR Repo market**

  - Regulations on FX control law or foreign investor screening on borrowing and lending among nonresidents and residents he

  - Each can justify the operation of FX control law for a variety of reasons

  - But need to exempt the application of those regulations on CBCR transactions