Good Practices for Developing a Local Currency Bond Market: Lessons from the ASEAN+3 Asian Bond Markets Initiative

This publication provides a comprehensive picture of how to foster local currency bond markets in ASEAN+3.

Local currency bond markets in ASEAN+3 play an important role in diversifying financial intermediary channels and mitigating the impacts of financial crises. They also have the potential to help mobilize developing Asia’s significant savings to meet the region’s enormous infrastructure investment needs.

Drawing extensively on knowledge generated by the ASEAN+3 Bond Market Forum, the publication looks at the essential building blocks and the enabling environment for these markets, as well as the roles of government, relevant authorities, and market participants.
The Government of Mongolia

June 2019 | MONGOLIAN BOND MARKET
In May 2018, Mongolia joined as a non-member observer country to participate further activities of Asian Bond Market Initiative and ASEAN+3 Bond Market Forum.

In April 2019, Ministry of Finance started to draft Mongolian Bond Market Guide complying with the AMBF Format.
I. Developments of Capital Market
Mongolia

Key facts

 Territory  1.6 million km² (19th largest)
 Government  Parliamentary
 Capital  Ulaanbaatar (time zone: UTC+8)
 Population  3.2 million (2018)
 GDP per capital  US$ 4,071 (2018)
 Nominal GDP  US$ 11.5 billion (2017)
 GDP growth  6.9% (2018), 5.3% (2017), 1.2% (2016), 2.3% (2015), 7.8% (2014), 11.6% (2013), 12.3% (2012)
 Inflation  8.1% (2018), 6.4% (2017), 1.27% (2016), 1.9% (2015), 11.0% (2014), 12.5% (2013), 14.0% (2012)
 Currency  1 US$=2656 Mongolian Tugrik (MNT)
 Literacy  97.5% (UNESCO)

Nominal GDP Contribution by sector /2018/

- Mining: 32%
- Agriculture: 22%
- Trade: 11%
- Manufacturing: 11%
- Electricity, transport, and telecommunication: 10%
- Financial and insurance: 9%
Development of Capital market of Mongolia to date

- The "Mongolian Stock Exchange" was established
- Securities market law and Establishment of Securities Committee
- First Bond Issuance in Mongolian Stock Exchange
- LSE-Millenium IT system applied to the market
- Government securities started to trade in SE


- Privatization in Mongolia
- Securities Companies were established
- First IPO in Mongolian Stock Exchange
- Securities Market Law revised
- First Dua-Listing
II. Mongolian Bond Market
Legal and Regulatory Framework

- Mongolia has a civil law tradition

- Legislative Structure
  - [1st Tier] Constitution of Mongolia
  - [2nd Tier] Laws (legislations issued by Parliament)
  - [3rd Tier] Decrees (issued by Government)
  - [4th Tier] Circulars (issued by Regulator Committee)
  - [5th Tier] Decisions and Orders (issued by Ministers and regulators)
  - [6th Tier] Rules and Guidance (issued by market institutions)

**Securities Market Related Laws**

- Law on Enterprises
- Law on Securities Market
- Law on Investment Fund
- Law on Commodities Exchange
- Law on Investment
- FRC Regulations

**Regulatory Process Map – Public Offering of Debt Securities**

1. Request for Registration
2. Request for Registration
3. Application for Listing
4. Listing Approval
Bond Market Regulatory Environment

Regulatory body:
- Ministry of Finance
- Financial Regulatory Commission

Product type:
- T-Bill, T-Bond
- Corporate Bonds

Trade type:
- Wholesale
- Retail
- Public Offering
- Private Placement

Trader:
- Central Bank
- Mongolian Stock Exchange
- Central Bank
- MCSD
- Central Bank
- 4 commercial Banks

Clearing:
- Central Bank
- MSCC
- MCSD
- MCSD
- 4 commercial Banks

Settlement:
- Central Bank
- MCSD
- MCSD
- MCSD
- 4 commercial Banks

Payment bank:
- Central Bank
- 4 commercial Banks

Currently OTC Market Platform is developing by Mongolian Securities Association.
Characteristics of the Mongolian Bond Market

1. Definition of Securities

Pursuant to the Article 4 and 5 of the Securities Law, securities and bonds are defined as follows:

a) Shares and debt instruments of company, shares or unites of the investment funds
b) Government bonds, Municipal Bonds
c) DRs, ABS
d) Warrants, derivatives
e) such other financial instruments as may be deemed by the Financial Regulatory Commission to be securities in accordance with this Law.

2. Financial Sector’s capitalization

Total: 13 billion USD

- Banking Sector: 3.5 billion USD (26%)
- Capital Market: 0.54 billion USD (4.2%)
- NBFIs: 0.86 billion USD (6.6%)
- Credit and Saving Union: 8.6 billion USD (66.2%)
- Insurance market: 87.5 billion USD (67.7%)

3. Market Participants as of today

<table>
<thead>
<tr>
<th>Stock Exchange</th>
<th>2</th>
<th>Diller</th>
<th>41</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commodity Exchange</td>
<td>1</td>
<td>Underwriter</td>
<td>25</td>
</tr>
<tr>
<td>Listed companies at MSE</td>
<td>197</td>
<td>Commodity broker</td>
<td>12</td>
</tr>
<tr>
<td>Securities Depository</td>
<td>1</td>
<td>Asset Management Company</td>
<td>17</td>
</tr>
<tr>
<td>Clearing House</td>
<td>1</td>
<td>Investment Fund /private/</td>
<td>12</td>
</tr>
<tr>
<td>Custodian Banks</td>
<td>3</td>
<td>Payment banks</td>
<td>13</td>
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<tr>
<td>Financial adviser</td>
<td>14</td>
<td>Insurance companies</td>
<td>18</td>
</tr>
<tr>
<td>Brokerage firm</td>
<td>53</td>
<td>NBFI</td>
<td>540</td>
</tr>
</tbody>
</table>

4. Securities companies capitalization

- TDB Capital: 51%
- BDSec: 1%
- Mirae Asset Securities Mongolia: 9%
- Ard Securities: 26%
- Golomt Capital: 3%
- Teso Investment: 2%
- Standard Investment: 2%
- Delgerkhangai Sec: 1%
- Others: 5%
First Government was issued in 1996.
Wholesale Government bond was started to trade through Central bank since 2012 and participants were Commercial banks and Foreign entities.
Retail Government bond was started to trade through Mongolian Stock Exchange since 2014 and participants were domestic entities and residences.
Prior to October 24th, 2017, when the MOF decided to cease issuing of governments that were tax-free and high-yielded, the market was fueled with government bond trading.
Government Bond Market-2

1. Government Bond Trade /billion MNT /

- BANK OF MONGOLIA
- MONGOLIAN STOCK EXCHANGE
- PRIVATE PLACEMENT

2. Government Bond’s rate

3. Activation of Government Bond Market Participants

- Domestic entities and citizens /except banks/
- Foreign entities and citizens

4. Activation of Government Bond Market Participants

- Domestic entities and citizens /except banks/
- Foreign entities and citizens

- Sales of Gov Bond /bil MNT/
- Number of trades

Government of Mongolia | June 2019
Corporate Bond Market /2001-2019/

1. Corporate Bond Issuance /million MNT /

2. Corporate Bond Issuance by sector

3. Corporate Bond’s interest rate

3. Corporate Bond’s Maturity by months
### Bond Market Costs and Taxation

#### 1. Market Fees

<table>
<thead>
<tr>
<th></th>
<th>Brokerage company fee paid by the customer</th>
<th>MSCC /%/</th>
<th>MSE /%/</th>
<th>MCSD</th>
<th>FRC regulator's premium * / %/</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Buy</strong></td>
<td></td>
<td><strong>Buy</strong></td>
<td><strong>Sell</strong></td>
<td><strong>Buy</strong></td>
<td><strong>Sell</strong></td>
</tr>
<tr>
<td>Government Bond (Primary)</td>
<td>0.048~0.05</td>
<td>0.00375</td>
<td>0.00175</td>
<td>0.00875</td>
<td>0.12</td>
</tr>
<tr>
<td>Government Bond (Secondary)</td>
<td>0.048~0.05</td>
<td>0.00375</td>
<td>-</td>
<td>0.00875</td>
<td>-</td>
</tr>
<tr>
<td>Corporate Bond (Primary)</td>
<td>0.1</td>
<td>0.0075</td>
<td>0.0075</td>
<td>0.0175</td>
<td>0.1575</td>
</tr>
<tr>
<td>Corporate Bond (Secondary)</td>
<td>0.1</td>
<td>0.0075</td>
<td>-</td>
<td>0.0175</td>
<td>-</td>
</tr>
</tbody>
</table>

* FRC receives the service fee for 10 percent of revenue from the MCSD, MSE and MSCC organizations

#### 2. Taxation

- The Interest Income from Government Bond and Development Bank’s bond is tax exempted.

- The interest income from debt instruments traded on the primary and the secondary market, issued by the resident tax payers incorporated under the Mongolian law who do not hold mining and petroleum license, **taxed at 5%**

- Interest income arising in connection with the loan, debt securities issued external and internal market by the commercial banks of Mongolia will be **taxed at 5%**
**Recent Developments – DLT based Stock Exchange Platform-24/7**

Trading, Clearing and Settlements will be conducted in one platform.

**Government Bonf**

**DLT Platform**

**T+0 Settlement cycle**

**Direct Participants**

- Banks
- Citizens
- Entities
- Securities Firms

*Government Securities will be traded within Regulatory Sandbox in July.

**Competitive trading regime**
- Reduce Government security benchmark interest rates
- Increase participation of individuals and entities in financial markets, provide secondary income sources
- Increase liquidity
- Reduce the necessary steps to engage in trading
- Significantly reduce the transaction fees necessary to engage in trading
- Reduce government debt service costs and reduce burden on budget
- Investors can engage in trading 24/7
- Investors will be able to access the online platform through their smartphones, notebooks, and computers to check their account, send trading orders, and control their accounts.
## Challenges

### Quality of the Assets & Issuers
- Inadequate supply of quality securities at the market
  - IPOs & Corporate bonds

### Market efficiency
- Poor financial and capacity ratios of the B&D;
- Over regulation of the FRC
- No Rating Agency & Credit Enhancement

### Poor Market infrastructure
- Prefunding/ T+0 settlement system
- Inadequate financial literacy among private companies

### Lack of Relationship Among the Participants
- Inefficient relationship between policy maker, regulator and market players

## Actions Taken

### Quality of the Assets & Issuers
- Government bond is about to start trading through DLT based platform
- Last 2-3 years, 5-6 IPOs have made at MSE

### Market efficiency
- Planning to Privatize MSE and major SOEs
- JPM Global Custodian in the local market

### Poor Market infrastructure
- Implementing DvP/T+2 principles to comply with International PFMI principles
- National program for Increasing financial Literacy of the public has developed

### Lack of Relationship Among the Participants
- Financial Sector Development Plan-2025 has approved in 2017 by Government Resolution
Brief Introduction to China Exchange Bond Market

Fixed Income Center, Shanghai Stock Exchange
Overview of China Bond Market
Development Updates of China Exchange Bond Market
International Communication & Cooperation
As of end 2018, China has the world’s 3rd largest bond market and 2nd largest credit bond market.

- **Outstanding Balance:** CNY 86.4 trillion (USD 12.6tn), 5-year CAGR at circa 20.8%
- **Issuance volume:** CNY 43.6 trillion (USD 6.4tn), YoY Growth at 6.8%

### Debt Securities Outstanding by Nations

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>3.0%</td>
<td>3.1%</td>
<td>20.8%</td>
<td>-1.5%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Japan</td>
<td>20.8%</td>
<td>-1.5%</td>
<td>1.5%</td>
<td>-1.2%</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>France</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Germany</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Source: BIS, Wind
Regulatory Framework of China Bond Market

**Regulator/SRO**
- MOF Local Gov.
- CSRC
- NDRC
- NAFMII
- PBOC/CBIRC
- Exchanges/SAC
- Local NDRC/CCDC
- Treasury bond, Local gov. bond
- Corp. bond, ABS, CB, EB, Repo...
- Enterprise bond, project revenue bond
- MTN, CP, SCP, ABN
- PFB, Commercial bank bond, NCD, CLO, Repo...

**Primary Market**
- Shanghai Stock Exchange/Shenzhen Stock Exchange

**Secondary Market**
- Exchange Bond Market
- China Foreign Exchange Trade System (CFETS)

**Depository/Settlement**
- China Securities Depository and Clearing Corporation Co., Ltd. (ChinaClear)
- China Clearing and Settlement Co., Ltd. (ChinaBond)
- Shanghai Clearing House Co., Ltd.

Cross-Market Transfer and Custody of Treasury Bonds
China Bond Market Development History

In 2015, CSRC introduced new Administrative Measures for the Issuance and Trading of Corporate Bonds (Decree No. 113).

In 2007, CSRC issued Pilot Rules for the Issuance of Corporate Bonds.

SSE Trial Measures for Private Placement Bonds of SME was issued in 2012.

SSE and SZSE were founded in 1990. T-bonds dominated the market by trading volume.

Government bonds (T-bonds) resumed issuance in 1981.

The Interbank Bond Market started in 1997.

Issuance

YOY Growth

-40% -20% 0% 20% 40% 60% 80% 100% 120% 140% 160%

160% 140% 120% 100% 80% 60% 40% 20% 0% -20% -40%

Regulatory Structure of China Exchange Bond Market

Key Legislation

- Securities Law of the People’s Republic of China, 2014
- Measures for the Administration of Corporate Bond Offering and Trading to Promote Reform in the Corporate Bond Market, 2015
- Announcement No. 3 [2015] of the China Securities Regulatory Commission—Announcement on Issuing the Standards for the Contents and Formats of Information Disclosure by Companies Offering Securities to the Public No. 24—Application Documents for the Offering of Corporate Bonds to the Public, 2015 Revision

Issued by SAC, the Exchanges & CSDC

- Administrative Measures for the Filing Management of Non-Publicly (Privately) Placed Corporate Bonds, 2015 (SAC)
- Trading Rules of the Shanghai Stock Exchange, 2006
- Measures for the Suitability Management of Investors in the Bond Market of Shanghai Stock Exchange, 2017

Issued by the State Council and its dept., e.g. CSRC / local governments

- Business/Service Agreements (Signed between the bond market infrastructure institutions and customers)
- Administrative Regulations/Local Rules, Local Opinions/Departmental Rules
- Constitution
Products of **China Exchange Bond Market**

- **Cash Bond**
  - Government Bond (T-bond)
  - Local Gov. Bond
  - Policy Financial Bond
  - Enterprise Bond
  - Corporate Bond (Public Offering/Private Placement)
  - Asset Backed Securities (ABS)

- **Exchangeable Bond**
- **Extendable Bond**
- **Convertible Bond**
- **Innovation & Entrepreneurship Bond**
- **Green Bond**
- **Belt and Road Bond**
- **Bail-out Bond**
- **Poverty Alleviation Bond**
- **House Rental Bond**

- **Others**
  - Collateral Repo (1-182 days)
  - One-to-one Collateral Repo
  - Tri-party Repo
  - Bond ETF
  - WI Trading of Gov. Bond
  - Bond Lending

- **Others**
  - Convertible Bond
  - Green Bond
  - Belt and Road Bond
  - Bail-out Bond
  - Poverty Alleviation Bond
  - House Rental Bond

- **Others**
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- **Others**
  - Convertible Bond
  - Green Bond
  - Belt and Road Bond
  - Bail-out Bond
  - Poverty Alleviation Bond
  - House Rental Bond
Growth of China Exchange Bond Market

10-Year CAGR of Bond Outstanding
- 2018 bond outstanding (Par Value): CNY 10.3tn
- 2.6 times the balance of 2015

4-Year CAGR of Issuance Volume
- 2018 bond issuance in exchange: CNY 5.7tn
- 2.4 times the issuance of 2015
Trading Volume and Investor Structure

2018 Trading Volume:
- CNY 237 trillion (Repo CNY 231tn, 97%; SSE CNY212tn, 92%)
- The trading volume in the exchange bond market increased rapidly and has exceeded equity trading volume since 2016.

Diversified Investor Composition:
- SSE/SZSE (respectively): Measures for the Suitability Management of Investors in the Bond Market, 2017

Equity / Bond Trading Volume

<table>
<thead>
<tr>
<th>Year</th>
<th>Stock</th>
<th>Cash Bonds</th>
<th>Repo</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>128</td>
<td>254</td>
<td>3.4</td>
</tr>
<tr>
<td>2016</td>
<td>234</td>
<td>127</td>
<td>5.3</td>
</tr>
<tr>
<td>2017</td>
<td>260</td>
<td>112</td>
<td>5.5</td>
</tr>
<tr>
<td>2018</td>
<td>231</td>
<td>90</td>
<td>6.3</td>
</tr>
</tbody>
</table>

Outstanding Balance by Investor Structure

By the end of Apr.2019; in the Exchange Bond Market

- Mutual funds 7.0%
- Individual 0.3%
- Other 8.9%
- QFII/RQFII 0.5%
- Pension funds 6.1%
- Trusts 5.6%
- Banks 25.2%
- Insurance 11.4%
- Security firms’ Proprietary Trading 7.3%
- Special managed accounts of mutual funds 20.5%
Product Innovation through a Range of Special-purpose Corporate Bonds

- **The exchange bond market** continues to promote product innovation, implement the national strategy, support the structural reforms on supply side, and serve the real economy.

**Expand the Corporate Bond Composition**

- **Panda Bond**
  - In 2018, SSE Panda Bond Issuance:
    - Total approved issuing volume: **CNY 184.3bn**.
    - 57 panda bonds (including 3 belt and road panda bonds) raised: **CNY 94.97bn**.
  - Up to end of 2018, the total issuance of Panda Bonds in China(Interbank+Exchanges): **CNY316.53bn**
    - Public offering: **CNY 180.99bn**.
    - Private placement: **CNY 135.54 bn**.

- **Green Bond**
  - By May 2019, SSE green bonds outstanding: **CNY 119.56bn**
    - 60 Green corporate bonds: **CNY 73.37bn**.
    - 33 Green enterprise bonds: **CNY 31.67bn**.
    - 113 Green ABS: **CNY 14.52bn**.
  - Local Gov. supports the sustainable development.

Source: SSE, as end of 2018
Green Finance

As end of May 2019, in SSE

- 93 Green Bonds
  - CNY 105 bn
- 113 Green ABS
  - CNY 14.5 bn
- 39 Green Indices
  - CNY 121.3bn
- 2 Green ETF
  - CNY 1.8 bn

Source: SSE Official Website Green Bond Column

Key Efforts on Green Finance

- Release rules on green bonds, set up green finance infrastructure.
- Offer convenient financing channels for green securities, improve review process efficiency.
- In Sep. 2017, SSE became China’s first exchange to join the United Nations’ Sustainable Stock Exchanges initiative.
- In June 2018, SSE and Luxembourg Stock Exchange (LuxSE) launched the Green Bond Channel to display detailed information of SSE green bond in LuxSE.

Green Bonds

“Circular on Launching Pilot Program for Green Corporate Bond”

- Funds raised for projects with environmentally sustainable benefits
- Green projects defined by Green Bond Endorsed Project Catalogue
- Encourage third party verification/certification

Key Efforts on Green Finance

- Energy Saving
- Pollution Prevention & Control
- Resource Conservation & Recycling
- Clean Transportation
- Clean Energy
- Ecological Protection & Climate Change Adaption

Source: SSE Official Website Green Bond Column
International Communication & Cooperation

After 29 years of rapid growth, SSE has developed into a comprehensive exchange with stocks, bonds, funds and derivatives, world-class exchange system and communication infrastructure, and effective self-regulatory system.

Products
- **Equities**: A-shares/ B-shares/ Sci-tech Innovation Board
- **Funds**: ETF/LOF/Close-end fund...
- **Bonds**: T-bonds/Corp. bonds/ ABS/Repo...
- **Derivative**: SSE 50ETF Options

Platform Systems
- Matching Transaction Platform (MTP)
- Wholesale platform
- Fixed-Income Securities Platform (FISP)
- SSE Bond Business Platform
- ...

Internationalization
- 5 Membership in International Organizations (by 2018)
- Shanghai-Hong Kong/Shanghai-London Stock Connect
- **Further opening-up endeavors**: QFII/RFII system+ Investment channels + Panda bond measures

Source: WFE, as of March 2019
Global Issuers and Investors in China Bond Market

Foreign Investors Debt Holdings in China

<table>
<thead>
<tr>
<th>Year</th>
<th>CNY tn</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>0.4</td>
</tr>
<tr>
<td>2014</td>
<td>0.7</td>
</tr>
<tr>
<td>2015</td>
<td>0.8</td>
</tr>
<tr>
<td>2016</td>
<td>0.9</td>
</tr>
<tr>
<td>2017</td>
<td>1.2</td>
</tr>
<tr>
<td>2018</td>
<td>1.7</td>
</tr>
</tbody>
</table>

QFII Participants by Regions

- Hongkong, 24.93%
- Taiwan, 10.06%
- U.S., 9.37%
- Australia, 2.05%
- U.K., 6.79%
- Singapore, 7.50%
- South Korea, 7.73%
- Macau, 4.99%
- Norway, 2.49%
- UAE, 2.49%
- France, 2.67%
- Japan, 2.67%
- Canada, 3.05%
- Switzerland, 3.82%
- Malaysia, 2.05%
- other, 7.31%

Source: SAFE, SSE, Wind, as end of 2018

Information Access

- **English Website**
  Comprehensive introduction to SSE, including products, rules, regulations, foreign access and market data. (http://english.sse.com.cn/)

- **SSE Markets and Infrastructure**
  Comprehensive introduction to SSE, including history, rules, market structure and infrastructure. (http://english.sse.com.cn/tradmembership/schedule/)

- **SSE Newsletter**

International Investor Relationship

- **Global Investor Event**
  A platform for investors, listed companies, and market regulators to share.

- **Corporate Access**
  Field trips to listed companies for international investors.

- **Overseas Roadshow**
  Promote SSE market and SSE listed companies overseas.
Contact us

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Email: globalbusiness@sse.com.cn
Tel.+862168808888

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Striving to Create a World-leading Innovative Capital Formation Center
- SZSE’s Fixed Income Market
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I  Overview of SZSE  

II  Characteristics of Exchange Corporate Bond  

III  Other Fixed Income Products  

IV  Future Development and Opportunities
Overview of SZSE
A Powerful Growth Pole with National Blueprint

- Shenzhen, the 3rd largest city by GDP in 2017
- A World-class Bay Area in China

“By 2030, the area is expected to have the highest GDP among all bay areas worldwide”
Our mission

Building a multi-tiered capital market, serving innovative companies and entrepreneurship

<table>
<thead>
<tr>
<th>Market</th>
<th>Description</th>
<th>No. of listed companies</th>
<th>Total market cap</th>
<th>Average market cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Board:</td>
<td>Competitive blue chips</td>
<td>473</td>
<td>USD 1.1trn</td>
<td>USD 2.3bn</td>
</tr>
<tr>
<td>SME Board:</td>
<td>Niche champions</td>
<td>931</td>
<td>USD 1.4trn</td>
<td>USD 1.5bn</td>
</tr>
<tr>
<td>ChiNext Market:</td>
<td>Innovation and entrepreneurship</td>
<td>749</td>
<td>USD 0.8trn</td>
<td>USD 1.1bn</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>2153</td>
<td>USD 3.3trn</td>
<td>USD 1.5bn</td>
</tr>
</tbody>
</table>

No. of accounts: 264mn (over 40mn active accounts)

Source: SZSE, as of Mar 2019; reference exchange ratio: 1USD=6.75RMB

The market share of SZSE in A share market is 40% in terms of market cap; and 54% in terms of trading value in 2018.
Rankings among World Exchanges

**No. of transactions**

- Shenzhen Stock Exchange: 3045 million (World No.1)
- National Stock Exchange of India Limited
- BATS Global Markets
- Korea Exchange
- Shanghai Stock Exchange
- Nasdaq - US
- NYSE
- Japan Exchange Group Inc.
- BATS Chi-x Europe
- LSE Group

**Trading Value**

- NYSE: 7562 billion USD (World No.3)
- Nasdaq - US
- Shenzhen Stock Exchange
- Japan Exchange Group Inc.
- Shanghai Stock Exchange
- BATS Chi-x Europe
- LSE Group
- Korea Exchange
- Hong Kong Exchanges and Clearing
- Euronext

**Funds Raised by IPO**

- Hong Kong Exchanges and Clearing: 7.8 billion USD (World No.6)
- NYSE
- Nasdaq - US
- Shanghai Stock Exchange
- LSE Group
- Shenzhen Stock Exchange
- Deutsche Boerse AG
- Indonesia Stock Exchange
- Australian Securities Exchange
- BSE India Limited

**Market Cap**

- NYSE: 2405 billion USD (World No.8)
- Nasdaq - US
- Japan Exchange Group Inc.
- Shanghai Stock Exchange
- Hong Kong Exchanges and Clearing
- Euronext
- LSE Group
- Shenzhen Stock Exchange
- BSE India Limited
- National Stock Exchange of India Limited

Source: WFE, as of end of Dec 2018
Characteristics of Exchange Corporate Bond
In 2015, China Securities Regulatory Commission (CSRC) released the *Measures for the Administration of Corporate Bond Offering and Trading* to promote reform in corporate bond market. CSRC delegated the preliminary vetting process on listing of corporate bonds to SZSE. As long as the information disclosure is complete, approvals will be granted either by CSRC or SZSE, depending on the issuance methods.

### Issuance Methods

1. **Public Offering** (Retail investors)
2. **Quasi-public Offering** (Qualified investors)
3. **Private Placement**

### Vetting Process

- **1st Step**: Vetting by CSRC
- **2nd Step**: Vetting by SZSE
- **3rd Step**: CSRC Approval
- **4th Step**: Registration with SAC

### Timeline

- **Public Offering**: Review in 10 market days, then 3 Months
- **Quasi-public Offering**: Review in 10 market days
- **Private Placement**: Review in 10 market days
Characteristics Of Exchange Bond Market

- **Offer Hybrid Products**
  - exchangeable bonds and convertible bonds

- **Provide Efficient Refinancing Channels**
  - for all market issuers

- **Diversified Investor Base**
  - Differentiated investor base including retail investors

- **Unique Trading Platform**
  - Centralized Quotation System for listed bonds and pledged repo
An Efficient Repo Market

- There are two types of repo in the exchange bond market. One is the negotiated based bond repurchase agreement which often uses in OTC market, the other is the standardized pledged repo.

- Pledged repo is traded through SZSE’s Centralized Quotation System, CSDC (China Securities Depository & Clearing) plays as the central counterparty. The whole process is efficient, transparent and market oriented.

Over 80% of the reverse pledged repo were bought by retail investors in SZSE’s bond market.

From 1 day to 182 days, SZSE offers 9 different types of pledged repo products.

Effective pledged repo can reduce issuing coupon rate by 20—70bp
On 2\textsuperscript{nd} March 2018, CSRC through the Shenzhen Stock Exchange promulgated an official set of rules for onshore and offshore entities to issue bonds in the Exchange Market with a Belt & Road theme. The latest set of rules provides exchange issuers with linkage to Belt & Road Initiative with maximum flexibility.

1. **B&R Sovereign Bond**
   - Panda Bonds issued by government or government related entities on the Belt & Road countries.

2. **B&R Panda Bond**
   - Panda Bonds issued by corporates and financial institutions from the Belt and Road countries.
   - Panda bonds issued by corporates (not located in B&R countries) deploy proceeds on B&R projects, repayment of B&R loans or develop B&R business.

3. **Domestic B&R Bond**
   - Domestic companies deploy proceeds on B&R projects, repayment of B&R loans or develop B&R business.

Note: If the underlying assets of an ABS product generated from B&R projects, this ABS product will be labeled as a B&R ABS.
## Corporate Panda Bond – General Requirements

<table>
<thead>
<tr>
<th>Definition</th>
<th>Public Offering</th>
<th>Quasi-public Offering to Qualified-investors</th>
<th>Private Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Panda bond is a Chinese RMB-denominated bond issued by a foreign corporate outside mainland China (including Hong Kong, Macau, Taiwan) in the domestic Chinese market.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Net Assets</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Limited Company: Net assets ≥ RMB 30 million</td>
<td>• Limited Liability Company: Net Assets ≥ RMB 60 million</td>
<td>• N/A</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Net Profit</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• The annual average of Attributable Profit for the past 3 years ≥ 1.5 times one year interest of corporate bonds</td>
<td>• The annual average of Attributable Profit for the past 3 years ≥ one year interest of corporate bonds</td>
<td>• N/A</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Financial report requirement</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Audited financial reports for the past three years should be submitted</td>
<td></td>
<td>• Audited financial reports for the past two years should be submitted</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bond Rating</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Bond Rating need to be AAA</td>
<td>• Bond Rating is compulsory</td>
<td>• N/A</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Offering Size</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Not greater than 40% of issuer’s net assets</td>
<td>• No minimum size is required</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shelf Registration</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Period of Validity 24 months</td>
<td>• First Issuance in 12 months</td>
<td></td>
<td>• Period of Validity: 12 months</td>
</tr>
</tbody>
</table>
## Corporate Panda Bond – Special Criteria

<table>
<thead>
<tr>
<th>Credit rating</th>
<th>Domestic rating report is required from a Domestic Credit Rating Agency:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Issuer Rating should be AA+ or above</td>
</tr>
<tr>
<td></td>
<td>Bond Rating should be AA+ or above</td>
</tr>
</tbody>
</table>

| Accounting standard and Auditor requirement | Current Hong Kong and European financial reporting standards are accepted, and only Hong Kong Auditing agencies are accepted. |
|                                             | Further relaxation of regulations may be possible.                                            |

| Use of proceeds | The use of proceeds of Panda Bonds tend to be flexible, except for B&R Panda Bond issuers (companies not located on B&R countries) need to deploy partial/the entire proceeds on B&R projects, repayment of the B&R project loans or develop B&R business. (B&R projects definitions refer to B&R Bond Rules released by SZSE) |
|                 | Can be deployed domestically or remitted outside China |
|                 | **Note**: Issuers needs to get approval from PBOC and SAFE for their use of proceeds in advance. |

| Information Disclosure | Information disclosure needs to be in line with the domestic corporate bonds. If information is disclosed in the other bond markets, it needs to be disclosed at the same time in SZSE. |
Belt and Road Initiative

**GLP**: M&A logistics facilities projects along “Belt and Road countries in Europe.

**China Merchants Port Holdings Company Limited**: M&A projects of Hambantota port in Sri Lanka

**Hengyi Petrochemical Co. Ltd**: PMB petrochemical project operations in Brunei
## Highlights
- GLP is a Singapore-listed company on the B&R countries.
- GLP will use its proceeds in the M&A logistics facilities projects along “Belt and Road countries.
- This was the First Belt and Road Panda Bond which is a milestone for the development of the Belt and Road bond market.

### Issuer Profile

<table>
<thead>
<tr>
<th>Company Profile</th>
<th>GLP is a leading global provider of modern logistics facilities. Through GLP’s network of strategically-located properties and ecosystem partners, GLP is able to offer both space and integrated solutions to drive value for its customers.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offering Size</td>
<td>Quasi-Public Offering, RMB 12 bn,</td>
</tr>
<tr>
<td>Coupon Rate</td>
<td>First Issuance 1.2bn; Coupon Rate is 5.65% (7th Feb, 2018) Second Issuance 4bn; Coupon Rate is 5.45% (4th Apr, 2018) Third Issuance 1.5bn; Coupon Rate 5.09% (2nd May, 2018) Fourth Issuance 2bn; Coupon Rate 5.20%(17th Jul. 2018) Fifth Issuance 3.3bn; Coupon Rate 4.35%(18th Mar. 2019)</td>
</tr>
<tr>
<td>Underwriter</td>
<td>China Merchants Securities</td>
</tr>
<tr>
<td>Tenor</td>
<td>9 years</td>
</tr>
<tr>
<td>Credit Rating</td>
<td>Domestic credit rating: Issuer - AAA, Bond - AAA</td>
</tr>
<tr>
<td>Use of Proceeds</td>
<td>M&amp;A logistics facilities projects along “Belt and Road” countries</td>
</tr>
<tr>
<td>Accounting Standards</td>
<td>HK Financial Reporting Standards</td>
</tr>
</tbody>
</table>
# B&R Corporate Panda Bond

## Case Study: China Merchants Port Holdings Company Limited (CMPort)

### Highlights
- CMPort is a Hong Kong listed company.
- CMPort will use its proceeds in M&A projects of Hambantota port in Sri Lanka.
- The over subscription rate is 3.58.

<table>
<thead>
<tr>
<th>Issuer Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company Profile</strong></td>
</tr>
<tr>
<td><strong>Offering Size</strong></td>
</tr>
<tr>
<td><strong>Coupon Rate</strong></td>
</tr>
<tr>
<td><strong>Underwriter</strong></td>
</tr>
<tr>
<td><strong>Tenor</strong></td>
</tr>
<tr>
<td><strong>Credit Rating</strong></td>
</tr>
<tr>
<td><strong>Use of Proceeds</strong></td>
</tr>
<tr>
<td><strong>Accounting Standards</strong></td>
</tr>
</tbody>
</table>
Case Study: Hengyi Petrochemical Co. Ltd

**Issue Profile**

- **Company Profile:** Hengyi is a global major supplier of PTA – polyester, and it is one of the largest petrochemical producer in PTA and PET in China. Zhejiang Hengyi Petrochemical Group has established production base in Hangzhou, Shanghai, Ningbo, Dalian etc.
- **Offering Size:** Quasi-Public Offering, RMB 0.5bn
- **Coupon Rate:** First Issuance 0.5bn; Coupon Rate is 6.47% (5th Mar, 2018)
- **Underwriter:** CITIC Securities
- **Tenor:** 2+1 years
- **Credit Rating:** Domestic credit rating: Issuer – AA+, Bond – AA+
- **Use of Proceeds:** PMB petrochemical project operations in Brunei

**Highlights**

- Hengyi Petrochemical Co. Ltd. is a SZSE listed company.
- Hengyi will use its proceeds in PMB petrochemical project operations in Brunei.
- The over subscription rate is 3.14.
Other Fixed Income Products
Local Government Bond

In 2018, 20 provinces in China have issued local gov. bond in SZSE, issued amount over RMB 755bn.
The amount of issuance was five times higher than the amount in 2017.

Highlights

- Highest Oversubscription Rate: 47.98; Hunan Province
- Highest Offering Size: RMB 75.82 bn; An Hui Province
- Highest Innovations Products: 10 different products, Sichuan Province

Local Government Bond Product Innovations

- Higher Education Project Bond
- Sustainable Bond
- Incubation Innovations Bond
- Medical Project Bond
- Social Utility Project Bond
- Social Infrastructure Project Bond
- Social Bond
In 2018, China Development Bank (CDB) and Agricultural Development Band of China (ADBC) issued total 16bn RMB policy bank financial bonds through SZSE.

Highlights

- Diversified investors base for policy bank financial bond, participants include commercial banks, securities firms, national Insurance funds and annuity.
- More than 60% of total amount of bids accepted is from securities firms.
- Over 70% of the bonds went into the pledged repo market. The discount rate is 0.98.
- CDB chose to issue policy bank financial bond in SZSE since 2017, ADBC chose to issue since 2018.

<table>
<thead>
<tr>
<th>Bond</th>
<th>Issuance Date</th>
<th>Tenor</th>
<th>Offering Size</th>
<th>Coupon Rate</th>
<th>Oversubscription Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDB1804</td>
<td>24. Aug. 2018</td>
<td>1 year</td>
<td>3bn</td>
<td>3.00%</td>
<td>2.89</td>
</tr>
<tr>
<td>CDB1805</td>
<td>24 .Aug. 2018</td>
<td>3 years</td>
<td>3bn</td>
<td>3.60%</td>
<td>3.05</td>
</tr>
<tr>
<td>ADBC1801</td>
<td>1. Nov.2018</td>
<td>1 year</td>
<td>5bn</td>
<td>2.80%</td>
<td>4.08</td>
</tr>
<tr>
<td>ADBC1802</td>
<td>1.Nov.2018</td>
<td>2 years</td>
<td>5bn</td>
<td>3.36%</td>
<td>3.98</td>
</tr>
</tbody>
</table>
Green Bond Principles

CSRC through the Shenzhen Stock Exchange promulgated an official set of rules for onshore and offshore entities to issue green bonds in the Exchange Market in 2016. The latest set of rules provides exchange issuers with a green concept with maximum flexibility.

Use of Proceeds

- Green Bond issuers need to deploy the entire proceeds on Green projects, repayment of the Green project loans or develop Green business.
- Green projects definitions refer to Green Project Catalogue released by China Green Finance Committee.

Encourage Fields

- Renewable Energy
- Energy Efficient Technology
- Control of Pollution
- Clean Transportation
- Climate Change Adaption

Vetting Process

- Dedicated staff is responsible for the vetting process which offers a fast path to Green Bond issuers.
- All the green bonds will be specially labelled as “G” in the bond code.
- Further tax incentives or subsidies may be granted in the future.
Luxembourg Stock Exchange (LuxSE) and the Shenzhen Stock Exchange (SZSE) partnered in 2017 to launch the first green bond index that synchronously displays quotes in China and Europe. The new index series track the performance of labelled and unlabelled Chinese green bonds used to finance environmentally-friendly projects.

- The index series are made up of three different indices that reflect the value of green bonds issued and settled in the inter-bank and stock markets in Shenzhen and Shanghai.
- The indices aim to provide greater transparency and facilitate access to green securities for investors in Europe.
Future Development and Opportunities
Future Development and Opportunities

Serve the Real Economy

Gradual expand issuers base:
Current issuers represent a wide variety of industries with strong credit profile and information disclosure. SZSE is committed to build a multi-tiered capital market by introducing more diversified issuers.

Improve Trading Mechanism

Increase market liquidity:
Building trading platform to suit both negotiated based trading and centralized quotation trading which further improve trading mechanism in the exchange market and effectively increase the liquidity.

Widen the Array of Products

Comprehensive products:
With the vision to offer investors and issuers a broad-spectrum of products, SZSE enriches the fixed income market by providing diversified fixed income products.

Further Opening Up

Enhance foreign participation:
SZSE aims at providing supports to foreign issuers by mobilizing China’s large investor base as well as enhancing foreign investors participation by building exchange market bond connect facilities.
Contact:

Email: chenjy@szse.cn
Website: www.szse.cn

Disclaimer:

This presentation is for reference only. Shenzhen Stock Exchange does NOT guarantee its accuracy. Listed companies or data mentioned in this presentation shall NOT be viewed as investment recommendations.
<table>
<thead>
<tr>
<th>CGIF Profile</th>
</tr>
</thead>
</table>
| **Legal Structure** | A Trust Fund of the Asian Development Bank (ADB)  
*Operationally independent from ADB* |
| **Establishment** | 12 November 2010 *(commenced operations May 2012)* |
| **Paid-In Capital** | US$ 1.0 billion *(to be increased to US$1.2 billion)* |
| **Guarantee Capacity** | US$ 2.6 billion *with 2.5 x leverage (to be increased to US$ 3 bil)* |
| **Contributors** | 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)* |
<p>| ASEAN Scale | AAA <em>(RAM - Malaysia)</em> |
| National Scale | AAA <em>(RAM, MARC – Malaysia, TRIS Rating – Thailand, Fitch Ratings – Indonesia)</em> |</p>
<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>Nov</td>
<td>CGIF established (effectuation of Articles of Agreement (AoA) and Operational Policies (OP))</td>
</tr>
<tr>
<td>2011</td>
<td>Oct</td>
<td>Core management team (CEO &amp; CRO) appointed</td>
</tr>
<tr>
<td>2012</td>
<td>Apr</td>
<td>CGIF initial capital of USD 700m fully paid-in</td>
</tr>
<tr>
<td></td>
<td>May</td>
<td>Ready to commence guarantee operations</td>
</tr>
<tr>
<td>2013</td>
<td>Apr</td>
<td>First guarantee issued</td>
</tr>
<tr>
<td></td>
<td>Nov</td>
<td>Guarantee capacity scaling-up (Meeting of Contributors approved an increase of leverage ratio to 2.5 times of capital to enable USD 1.75b capacity)</td>
</tr>
<tr>
<td>2014</td>
<td>Jan</td>
<td>Financial control and accounting function taken over from ADB</td>
</tr>
<tr>
<td>2015</td>
<td>Mar</td>
<td>CGIF office relocated to ADB HQ building</td>
</tr>
<tr>
<td></td>
<td>Apr</td>
<td>Operational Review completed by BOD</td>
</tr>
<tr>
<td>2016</td>
<td>Oct</td>
<td>Quota share reinsurance treaty became effective (transferring CGIF into Public-Private Partnership)</td>
</tr>
<tr>
<td>2017</td>
<td>Aug</td>
<td>Medium-term Business Strategy and Capital Increase Proposal (CIP) approved by BOD</td>
</tr>
<tr>
<td></td>
<td>Dec</td>
<td>CIP approved by Special MOC (Subscribed capital increased to USD 1.2 billion)</td>
</tr>
<tr>
<td>2019</td>
<td>Apr</td>
<td>Paid-in capital reached USD 1 billion</td>
</tr>
<tr>
<td></td>
<td>May</td>
<td>Infrastructure Investors Partnership (IIP) announced</td>
</tr>
</tbody>
</table>
- 31 bond guarantees totaling USD1.64 billion equivalent in ASEAN local currencies
- Guaranteed in 5 of 6 ASEAN local currency bond markets
- Supported 22 companies from 10 of 13 countries
- 12 *first time issuers and 8* cross borderer transactions in ASEAN bond markets
- 0 guarantee claims and 7 guarantees successfully matured

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Guaranteed Approvals (no)</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>9</td>
<td>1</td>
<td>34</td>
</tr>
<tr>
<td>Amount (USD million)</td>
<td>140</td>
<td>558</td>
<td>290</td>
<td>584</td>
<td>475</td>
<td>355</td>
<td>713</td>
<td>110</td>
<td>3,225</td>
</tr>
<tr>
<td>Guaranteed Issuances (no)</td>
<td>–</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>8</td>
<td>3</td>
<td>9</td>
<td>3</td>
<td>31</td>
</tr>
<tr>
<td>Amount (USD million)</td>
<td>–</td>
<td>123</td>
<td>371</td>
<td>137</td>
<td>409</td>
<td>73</td>
<td>303</td>
<td>222</td>
<td>1,638</td>
</tr>
<tr>
<td>Guaranteed Redemptions (no)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>2</td>
<td>3</td>
<td>–</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Amount (USD million)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>123</td>
<td>135</td>
<td>–</td>
<td>23</td>
<td>281</td>
</tr>
</tbody>
</table>

¹⁄ Up to end May 2019
# GUARANTEE TRANSACTIONS

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Sector</th>
<th>CGIF Exposure in LCY/USD Eqv.</th>
<th>% G’tee by CGIF</th>
<th>Tenure</th>
<th>Issue Date</th>
<th>Coupon (spread over benchmark)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Noble Group (Hong Kong) <strong>REDEEMED</strong></td>
<td>Commodity trading</td>
<td>THB 2,850 mio (USD 98 mio)</td>
<td>100%</td>
<td>3y</td>
<td>26 Apr 2013</td>
<td>3.55% (+69bps)</td>
</tr>
<tr>
<td>2 PT BCA Finance (Indonesia) <strong>REDEEMED</strong></td>
<td>Consumer finance (auto)</td>
<td>IDR 300 bio (USD 25 mio)</td>
<td>100%</td>
<td>3y</td>
<td>4 Dec 2013</td>
<td>8.20% (+20bps)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IDR 120 bio (USD 11 mio)</td>
<td>100%</td>
<td>3y</td>
<td>18 Mar 2014</td>
<td>7.94% (+20bps)</td>
</tr>
<tr>
<td>3 Kolao Holdings (Lao PDR) <strong>REDEEMED</strong></td>
<td>Automobile dealer</td>
<td>SGD 60 mio (USD 48 mio)</td>
<td>100%</td>
<td>3y</td>
<td>21 Aug 2014</td>
<td>2.00% (+95bps)</td>
</tr>
<tr>
<td>4 PT Astra Sedaya Finance (Indonesia) <strong>REDEEMED</strong></td>
<td>Consumer finance (auto)</td>
<td>SGD 100 mio (USD 76 mio)</td>
<td>100%</td>
<td>3y</td>
<td>18 Dec 2014</td>
<td>2.115% (+86.5bps)</td>
</tr>
<tr>
<td>5 Protelindo Finance BV (Indonesia)*</td>
<td>Telecom tower leasing</td>
<td>SGD 180 mio (USD 138 mio)</td>
<td>100%</td>
<td>10y</td>
<td>27 Nov 2014</td>
<td>3.25% (+85bps)</td>
</tr>
<tr>
<td>6 MasanConsumerHolding s (Vietnam)</td>
<td>Food</td>
<td>VND 2,100 bio (USD 98 mio)</td>
<td>100%</td>
<td>10y</td>
<td>5 Dec 2014</td>
<td>8.00% (+96bps)</td>
</tr>
</tbody>
</table>

* Change of issuer of the bonds from Protelindo Finance B.V. to PT Professional Telekomunikasi Indonesia effective 03 August 2016.
<table>
<thead>
<tr>
<th>Issuer</th>
<th>Sector</th>
<th>CGIF Exposure in LCY/USD Eqv.</th>
<th>% G’tee by CGIF</th>
<th>Tenure</th>
<th>Issue Date</th>
<th>Coupon (spread over benchmark)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVL Singapore PTE. LTD (Thailand)</td>
<td>Chemicals</td>
<td>SGD 195 mio (USD 137 mio)</td>
<td>100%</td>
<td>10y</td>
<td>7 Oct 2015</td>
<td>3.73% (+80bps)</td>
</tr>
<tr>
<td>Vingroup Joint Stock Company (Vietnam)</td>
<td>Real Estate Management &amp; Development</td>
<td>VND 1,950 bio (USD 87 mio)</td>
<td>100%</td>
<td>5y</td>
<td>18 Feb 2016</td>
<td>7.75% (+129bps)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>VND 1,050 bio (USD 47 mio)</td>
<td>100%</td>
<td>10y</td>
<td>18 Feb 2016</td>
<td>8.50% (+138bps)</td>
</tr>
<tr>
<td>AP Renewables, Inc. (Philippines)*</td>
<td>Renewable Energy</td>
<td>PHP 4,687 mio (USD 100 mio)</td>
<td>-</td>
<td>10y</td>
<td>8 Mar 2016</td>
<td>Undisclosed</td>
</tr>
<tr>
<td>PT Mitra Pinasthika Mustika Finance (Indonesia)</td>
<td>Consumer finance (auto)</td>
<td>IDR 140 bio (USD 11 mio)</td>
<td>100%</td>
<td>3y</td>
<td>11 Mar 2016</td>
<td>8.52% (+55bps)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IDR 160 bio (USD 12 mio)</td>
<td>100%</td>
<td>3y</td>
<td>28 Apr 2016</td>
<td>7.77% (+55bps)</td>
</tr>
<tr>
<td>Fullerton Healthcare Corporation Limited (Singapore)</td>
<td>Healthcare</td>
<td>SGD 50 mio (USD 37 mio)</td>
<td>100%</td>
<td>5y</td>
<td>7 Jul 2016</td>
<td>2.45% (+72bps)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SGD 50 mio (USD 37 mio)</td>
<td>100%</td>
<td>7y</td>
<td>7 Jul 2016</td>
<td>2.75% (+84bps)</td>
</tr>
</tbody>
</table>

* Risk-participation with ADB as the fronting guarantor for a Total Issuance of PHP 10.7 billion (approx. USD 224 million eqv.)
<table>
<thead>
<tr>
<th>Issuer</th>
<th>Sector</th>
<th>CGIF Exposure in LCY/USD Eqv.</th>
<th>% G’tee by CGIF</th>
<th>Tenur e</th>
<th>Issue Date</th>
<th>Coupon (spread over benchmark)</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 KNM Group Berhad (Malaysia)</td>
<td>(Energy) Energy Equipment &amp; Services</td>
<td>THB 2,780 mio (USD 78 mio)</td>
<td>100%</td>
<td>5y</td>
<td>18 Nov 2016</td>
<td>3.00% (+ 112 bps)</td>
</tr>
<tr>
<td>13 ASA Philippines Foundation, Inc. (Philippines)*</td>
<td>Consumer Finance</td>
<td>PHP 750 mio (USD 15 mio)</td>
<td>75%</td>
<td>5y</td>
<td>10 Feb 2017</td>
<td>5.07% (+87.5 bps)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHP 375 mio (USD 7.5 mio)</td>
<td>75%</td>
<td>5y</td>
<td>28 Jun 2017</td>
<td>5.17% (+87.5 bps)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHP 375 mio (USD 7.5 mio)</td>
<td>75%</td>
<td>5y</td>
<td>10 Jan 2018</td>
<td>5.90% (+87.5 bps)</td>
</tr>
<tr>
<td>14 Mobile World Investment Corporation</td>
<td>Specialty Retail</td>
<td>VND1,135 bio (USD 50 mio)</td>
<td>100%</td>
<td>5y</td>
<td>17 Nov 2017</td>
<td>6.55% (+197.2 bps)</td>
</tr>
<tr>
<td>15 Siamgas and Petrochemicals Public Company Limited (Thailand)</td>
<td>Oil, Gas &amp; Consumable Fuels</td>
<td>THB 1,700 mio (USD 54 mio)**</td>
<td>85%</td>
<td>5y</td>
<td>28 Feb 2018</td>
<td>3.03% (+118 bps)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>THB 1,400 mio (USD 43 mio)***</td>
<td>70%</td>
<td>5y</td>
<td>7 Dec 2018</td>
<td>3.85% (+150 bps)</td>
</tr>
</tbody>
</table>

* 75% Partially Guaranteed Bonds for a total issuance of PHP 2.0 billion (USD 40 million (fx rate based on issuance date))
** 85% Partially Guaranteed Bonds for a total issuance of THB 2.0 billion (USD 64 million (fx rate based on issuance date))
***70% Partially Guaranteed Bonds for a total issuance of THB 2.0 billion (USD 61 million (fx rate based on issuance date))
## GUARANTEE TRANSACTIONS

### (4)

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Sector</th>
<th>CGIF Exposure in LCY/USD Eqv.</th>
<th>% G’tee by CGIF</th>
<th>Tenure</th>
<th>Issue Date</th>
<th>Coupon (spread over benchmark)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>The Pan Group JSC (Vietnam)</td>
<td>Consumer Staples</td>
<td>VND 1,135 bio (USD 50 mio)</td>
<td>100%</td>
<td>5y</td>
<td>10 Sep 2018</td>
</tr>
<tr>
<td>17</td>
<td>Hoan My Medical Corporation (Vietnam)</td>
<td>(Healthcare) Health Care Providers &amp; Services</td>
<td>VND 930 bio (USD 40 mio)</td>
<td>100%</td>
<td>5y</td>
<td>5 Oct 2018</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>VND 1,400 bio (USD 60 mio)</td>
<td>100%</td>
<td>7y</td>
<td>5 Oct 2018</td>
</tr>
<tr>
<td>18</td>
<td>AEON Credit Services (Philippines) Inc. (Philippines)</td>
<td>Financials (Consumer Finance)</td>
<td>PHP 900 mio (USD 17 mio)</td>
<td>100%</td>
<td>3y</td>
<td>16 Nov 2018</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PHP 100 mio (USD 2 mio)</td>
<td>100%</td>
<td>5y</td>
<td>16 Nov 2018</td>
</tr>
<tr>
<td>19</td>
<td>Boonthavorn Ceramic 2000 Co., Ltd.'s</td>
<td>Consumer Discretionary (Specialty Retail)</td>
<td>THB 1,000 mio (USD 30 mio)*</td>
<td>50%</td>
<td>5y</td>
<td>17 Dec 2018</td>
</tr>
</tbody>
</table>

*50:50 Co-guaranteed Bonds by CGIF and KBANK for a total issuance of THB 2.0 billion (USD 61 million (fx rate based on issuance date))
## GUARANTEE TRANSACTIONS (5)

<table>
<thead>
<tr>
<th>Issuer</th>
<th>Sector</th>
<th>CGIF Exposure in LCY/USD Eqv.</th>
<th>% G’tee by CGIF</th>
<th>Tenure</th>
<th>Issue Date</th>
<th>Coupon (spread over benchmark)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>Yoma Strategic Holdings Ltd. (Myanmar)</td>
<td>Real Estate Management &amp; Development</td>
<td>THB 2,220 mio (USD 70 mio)</td>
<td>100%</td>
<td>5y</td>
<td>25 Jan 2019</td>
</tr>
<tr>
<td>21</td>
<td>Refrigeration Electrical Engineering Corporation (Vietnam)</td>
<td>Industrial Conglomerates</td>
<td>VND 2,318 bio (USD 100 mio)</td>
<td>100%</td>
<td>10y</td>
<td>28 Jan 2019</td>
</tr>
<tr>
<td>22</td>
<td>CJ Logistics Asia Pte. Ltd. (Philippines)</td>
<td>Air Freight &amp; Logistics</td>
<td>SGD 70 mio (USD 52 mio)*</td>
<td>100%</td>
<td>5y</td>
<td>25 Mar 2019</td>
</tr>
</tbody>
</table>

* 50% risk shared by the Export-Import Bank of Korea (KEXIM) through a risk participation agreement for a total issuance of SGD 70 million (USD 52 million (fx rate based on issuance date)*
Current Business Plan

Business Focus

- Supporting **first time issuers** in the domestic bond markets
- Enabling matching funding for long-term investments by **lengthening bond tenors**
- Mobilizing intra-regional capital flows by supporting **cross border bond transactions** with special focus on supporting pilot **AMBIF** issues in new jurisdictions
- Introducing **new debt instruments** in the bond markets, such as project bonds, green bonds and securitization

- **Broadening investor base** in LCY bond markets by encouraging investment from offshore investors (in particular +3 investors)
- Helping to **kick-start LCY bond markets in frontier markets** (BCLM)
Infrastructure Investors Partnership (IIP)

- New regional guarantee facility to provide guarantees to promote local currency infrastructure finance in ASEAN
  - Innovative Public-Private Partnership – IIP’s capital resources will be raised by issuing mezzanine bonds to institutional investors in developed economies by using public sector funds as 1st loss
  - IIP will also guarantee bank loans for greenfield projects to promote refining by bond finance after project completion

- CGIF is tasked to develop IIP as one of new actions of “New ABMI Med-term Road Map (2019-22) announced by ASEAN+3 Finance Ministers and Central Bank Governors meeting in May 2019
### Execution Highlights

- CGIF and Thailand’s first Myanmar-based issuer
- An ASEAN collaboration: A Myanmar-focused and Singapore-listed company raising bonds in Thailand through an ASEAN+3 guarantor
- Facilitated Thailand’s objective of becoming a regional financing hub for CLMV issuers
- Channeled Thai institutional savings and baht bond market’s liquidity toward Myanmar’s growth sectors
- First-time investments in CGIF-guaranteed bonds by Thai Government-related entities ("GRE")
- Oversubscribed by more than 2.5x, signifying CGIF’s catalytic role in enabling Thai investors to gain access to Myanmar exposures

### Transaction Summary

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Issuer</strong></td>
<td>Yoma Strategic Holdings Ltd</td>
</tr>
<tr>
<td><strong>Issuer Exchange (Ticker)</strong></td>
<td>SGX (SGX: Z59)</td>
</tr>
<tr>
<td><strong>Issuer Rating</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Guarantor</strong></td>
<td>Credit Guarantee &amp; Investment Facility</td>
</tr>
<tr>
<td><strong>Issue Rating</strong></td>
<td>AAA (Tris Rating)</td>
</tr>
<tr>
<td><strong>Bond Type</strong></td>
<td>Unsecured, Unsubordinated Guaranteed</td>
</tr>
<tr>
<td><strong>Guarantee</strong></td>
<td>100% Unconditional and Irrevocable</td>
</tr>
<tr>
<td><strong>Coupon Type / Payment</strong></td>
<td>Fixed Rate /Semi-Annual Payment</td>
</tr>
<tr>
<td><strong>Distribution Method</strong></td>
<td>Private Placement</td>
</tr>
<tr>
<td><strong>Issue Size</strong></td>
<td>THB 2.22 billion (~USD 70 million equivalent)</td>
</tr>
<tr>
<td><strong>Issue Price</strong></td>
<td>100%</td>
</tr>
<tr>
<td><strong>Tenor</strong></td>
<td>5 years</td>
</tr>
<tr>
<td><strong>Issue Date</strong></td>
<td>25-Jan-2019</td>
</tr>
<tr>
<td><strong>Maturity Date</strong></td>
<td>25-Jan-2024</td>
</tr>
<tr>
<td><strong>Government Benchmark</strong></td>
<td>2.14%</td>
</tr>
<tr>
<td><strong>Spread over Benchmark</strong></td>
<td>124 bps</td>
</tr>
<tr>
<td><strong>Coupon to Investors (p.a.)</strong></td>
<td>3.38%</td>
</tr>
<tr>
<td><strong>Governing Law</strong></td>
<td>Bond Documents – Thai Law</td>
</tr>
<tr>
<td><strong>Placement Agent</strong></td>
<td>Bangkok Bank Public Company Limited</td>
</tr>
<tr>
<td><strong>Registrar, Paying and Transfer Agent</strong></td>
<td>Bangkok Bank Public Company Limited</td>
</tr>
<tr>
<td><strong>Bondholders’ Representative</strong></td>
<td>Bangkok Bank Public Company Limited</td>
</tr>
</tbody>
</table>

### Investor Type Breakdown

- Domestic: 100%
- Insurance: 32%
- Banks: 36%
- GREs: 32%
**Transmission Summary**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issuer</td>
<td>Refrigeration Electrical Engineering Corporation</td>
</tr>
<tr>
<td>Issuer Exchange (Ticker)</td>
<td>HOSE (REE)</td>
</tr>
<tr>
<td>Issuer Rating</td>
<td>N/A</td>
</tr>
<tr>
<td>Guarantor</td>
<td>Credit Guarantee &amp; Investment Facility</td>
</tr>
<tr>
<td>Issue Rating</td>
<td>N/A</td>
</tr>
<tr>
<td>Bond Type</td>
<td>Unsecured, Unsubordinated and Guaranteed Bond</td>
</tr>
<tr>
<td>Guarantee</td>
<td>100%</td>
</tr>
<tr>
<td>Coupon Type / Payment</td>
<td>Semi-annual</td>
</tr>
<tr>
<td>Distribution Method</td>
<td>Private Placement</td>
</tr>
<tr>
<td>Issue Size</td>
<td>VND 2,318 billion (~USD 100 million equivalent)</td>
</tr>
<tr>
<td>Issue Price</td>
<td>100%</td>
</tr>
<tr>
<td>Tenor</td>
<td>10 years</td>
</tr>
<tr>
<td>Issue Date</td>
<td>28-Jan-2019</td>
</tr>
<tr>
<td>Maturity Date</td>
<td>28-Jan-2029</td>
</tr>
<tr>
<td>Government Benchmark</td>
<td>4.8422%</td>
</tr>
<tr>
<td>Spread over Benchmark</td>
<td>216 bps</td>
</tr>
<tr>
<td>Coupon to Investors (p.a.)</td>
<td>7.00%</td>
</tr>
<tr>
<td>Governing Law</td>
<td>Bond Documents –Vietnam Law</td>
</tr>
<tr>
<td></td>
<td>Guarantee Document –English Law</td>
</tr>
<tr>
<td>Arranger and Placement Agent</td>
<td>Standard Chartered Bank</td>
</tr>
<tr>
<td>Registrar, Paying and Transfer Agent</td>
<td>Ho Chi Minh City Securities Corporation</td>
</tr>
<tr>
<td>Facility Agent and noteholders’ representative</td>
<td>Ho Chi Minh City Securities Corporation</td>
</tr>
</tbody>
</table>

**Execution Highlights**

- 1st 10 year fixed rate corporate bond issuance by REE, thus reducing significantly interest risk and duration risk for the company to suit the nature of its business.
- Diversified REE’s funding sources to the institutional investors.
- Enabled REE to achieve fixed interest rate and bullet repayment at longer tenor to match the investment targets.
- Proceeds of the bond will be used for property development in the affordable office leasing sector which ultimately will spur economic activity in Vietnam.

**Geographical Distribution**

- **Domestic** 100%
- **Insurance** 100%
## Execution Highlights

- This is the first senior unsecured bond under the ASEAN +3 Multi-Currency Bond Issuance Framework (“AMBIF”) guaranteed by CGIF in Singapore listed at SGX.
- The first Korean company to issue with CGIF’s guarantee.
- CGIF’s guarantee helped the company achieve a strategic advantage by restructuring from short term loan to long term finance.
- This transaction will ultimately contribute to the development of the logistics industry in the ASEAN region.
- The first risk sharing with ECA (KEXIM) for CGIF.

## Geographical Distribution

**Domestic**

100%

**Insurance**

38.6%

**Bank**

0.7%

**Asset Management**

60.70%
THANK YOU
Japan - ASEAN Finance Technical Assistance Fund (JAFTA)
ASEAN+3 ABMI TACT

Philippines TA (Phase 6)
Myanmar TA (Phase 4)

Activity summary thus far

Presented at 31\textsuperscript{st} ASEAN+3 Bond Market Forum (ABMF) Meeting, Tokyo

24 June 2019
Akifumi Nakanishi
Asia Consulting Department, DIR
1. Summary of TA activities in charge
2. Philippines TA (Phase 6)
3. Myanmar TA (Phase 4)
1. Summary of TA activities in charge

Daiwa Institute of Research (DIR) is in charge of new phases in two countries: Philippines (Phase 6) and Myanmar (Phase 4).

**Summary for Philippines TA Phase 6**
- Started the TA activity from September 2018.
- There are two main counterparts (BSP and SEC) with total of 4 scopes and one reporting counterpart (DOF) overlooking the overall TA activity.
- As of June 2019, completed four missions and activities onsite in Manila.
- Based on the basic information/materials gathered, we have started to conduct the assessment which will be our main activities over the next few months.

**Summary for Myanmar TA Phase 4**
- Started the TA activity with total of 4 scopes from September 2018.
- Main counterpart is Securities and Exchange Commission Myanmar (SECM).
- As of June 2019, completed fifth mission and activities onsite in Myanmar.
- According to dialogs with SECM, we will draw a roadmap and Standard Operation Procedure (SOP) based on the fact finding surveys over the next few months.
**Scopes and needs for Phase 6**

1. Provide comprehensive assessment/analysis of developing safety measures to mitigate financial risks in the bond and repo markets, particularly the development of a data monitoring system to facilitate market conditions monitoring processes.

2. Develop safety measures in capturing data on the Philippine repo market, particularly on the following: (i) how to monitor the data available in Bloomberg which is the trading platform for repo transactions; and (ii) how to interpret the data to determine possible monetary and financial stability risks and corresponding policy actions.

3. Assess the SEC institutional capacity on the following: (i) third party assessment of the implementation of International Organization of Securities Commissions (IOSCO) objectives and Principles of Securities Regulation; and (ii) providing indicator/s of institutional capacity (both human and technological) against prescribed mandate, and other regulators in peer jurisdictions.

4. Develop capacity building scenario to enhance SEC capacity and resources, as well as developing institutional roadmap to be used for future guidelines.

Source: ASEAN Secretariat, “TA on Developing Bond Markets for the Philippines – Phase VI - Terms of Reference”
# 2-2. Philippines Ph.6: Expected Outputs

<table>
<thead>
<tr>
<th>No.</th>
<th>Objectives and expected outputs</th>
<th>Counterparts</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>BSP</td>
</tr>
<tr>
<td>1</td>
<td>Identify measures that could help mitigate monetary and financial risks associated with the Government Securities Repo program</td>
<td>✓</td>
</tr>
<tr>
<td>2</td>
<td>Address potential regulatory gaps</td>
<td>✓</td>
</tr>
<tr>
<td>3</td>
<td>Provide assessment result on the SEC’s effectiveness in implementing IOSCO Objectives and Principles of Securities regulation</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Provide recommendations on the following; (i) areas within SEC that might need more support, including possibly augmentation of human and technological resources; (ii) functions that need to be added to effectively implement the Commission’s mandate; and (iii) functions that need to be removed and/or “transferred to technology” given some baseline, and against practices in other peer jurisdictions</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Enhance the SEC forward-looking exercise as well as to provide roadmap/guidelines to operationalize the vision for the Commission</td>
<td>-</td>
</tr>
</tbody>
</table>
1. Framework on GS Repo established in 2017 and trades started officially.
2. Prior to GS Repo market, there existed a repo market facilitated by PDEx in the past.
3. After opening of the GS Repo market, the transaction is not fully active as expected (although there are several transaction observed time to time).
4. “Monitoring” of the market is mainly in charge of BSP.
5. Apart from BSP, there are several parties concerned: SEC as a regulating body for the capital market and associations (SROs) MART, PDEx, BAP.
6. Market data is accessible to stakeholders via Bloomberg platform which is managed by MART and provided by PDEx on real-time basis.
7. There are several units internally within BSP who are involved in the overall “monitoring” process but there is no guideline/manual to be followed as of today.
8. BSP needs assistance on how to compile the obtained market data to analyze/interpret in order to take necessary actions to monitor the market given some of the risks they may need to be aware of to be practiced once the GS Repo market takes off.
Scopes in regards to SEC reform (counterpart: SEC)

1. SEC has been going through series of organizational reform in the recent years.
2. Apart from the market regulating function, it also has a corporate registrar function as their main mandate, which makes SEC quite unique from other regulators in the global market.
3. The allocation of budget and staffs for market regulating side has been a going concern especially not only to fulfill its ordinary mandate in line with the Securities Regulation Code but also to manage new mandates based on the changes in the market environment and needs from the market participants.
4. SEC needs assistance on how to construct an appropriate budget and staffing plans in order for them to effectively manage the market regulating function while complying with the IOSCO’s Objective and Principle as a sole securities market regulator in the country.
Based on the information/materials gathered through the initial missions, we are currently conducting the assessment and expected to continue for few months.

Plan to conduct 2 workshops during the course of the TA to share the assessment results and global practices with recommendations to the relevant beneficiaries.

<table>
<thead>
<tr>
<th>Mission</th>
<th>Timeframe</th>
<th>Main activities</th>
<th>Workshop</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>Sep. 2018</td>
<td>Kick-off meeting with the core counterparts and identifying focal issues</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>2nd</td>
<td>Nov. 2018</td>
<td>Further studies on repo market monitoring operations by BSP and ongoing SEC reforms. Preparation for the assessment.</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>3rd</td>
<td>Jan. 2019</td>
<td>Conduct assessment for both BSP and SEC.</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>4th</td>
<td>Apr. 2019</td>
<td>Continuation of the assessment and draft recommendations</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>5th</td>
<td>July 2019</td>
<td>Draft final report and recommendations.</td>
<td>WS#1 for SEC</td>
<td></td>
</tr>
<tr>
<td>6th</td>
<td>Oct. 2019</td>
<td>Final review and submission of the final report with recommendations.</td>
<td>WS#2 for BSP</td>
<td></td>
</tr>
<tr>
<td>7th</td>
<td>Nov. 2019</td>
<td>Wrap up session</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
Based on the TOR provided via the ASEAN Secretariat, there are 4 scopes in the new phase in developing Myanmar’s bond market.

We will pay special attention to first and fourth scopes during this phase.

Our counterpart is Securities and Exchange Commission Myanmar (SECM).

### Scopes and needs for Phase 4

1. Secondary market enhancement (OTC trades)
2. Credit rating system and agency establishment (capacity development of personnel and training)
3. Realization of introducing other types of bonds
4. Investor development (institutional investors, retail investors and non-residential investors)

Source: ASEAN Secretariat, “TA on Developing Bond Markets for Myanmar – Phase IV - Terms of Reference”
3-2. Myanmar Ph.4: Expected outputs

- In accordance with consensus with SECM, we plan to design a framework of secondary market for treasury bonds, and draw a roadmap for Developing Myanmar’s Bond Market as well as Standard Operation Procedure (SOP).

- The framework, roadmap and SOP would be drafted on the basis of the fact finding surveys on the financial institutions and other beneficiaries.

<table>
<thead>
<tr>
<th>No.</th>
<th>Objectives</th>
<th>Expected outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Enhance the secondary market for treasury bonds</td>
<td>Design a framework and try to conduct a trial operation of secondary market for treasury bonds</td>
</tr>
<tr>
<td>2</td>
<td>Pave the way for introducing other types of bonds and capacity building for credit rating system</td>
<td>Draw a roadmap for treasury bonds, SOE bonds as well as corporate bonds</td>
</tr>
<tr>
<td>3</td>
<td>Improve investors’ financial literacy and awareness of investment opportunities</td>
<td>Draft SOP samples for banks and securities companies</td>
</tr>
</tbody>
</table>
We are currently conducting the fact finding surveys and drafting a roadmap & SOP based on the surveys.

Main findings and issues

Banks

- Some commercial banks, especially major banks, already introduced the core banking system and established operation for cash & deposit management.
- Some banks are often participating in the interbank and repo market for short-term financing. The interbank rate fluctuates in trade-off with cash demand which tends to increase in summer season and decrease in rainy season.
- Treasury bills and bonds basically are not sold to other investors and held to maturity.

Securities Companies

- Although several securities companies have been participating in the treasury bonds auctions, the minimum amount for bidding (MMK 500 mil) seems to be obstacle for many securities companies to participate in the auction.
- Most securities companies might be under process to include treasury bonds sales as part of their services through setting up the internal business line.
We plan to hold workshops for feedback on finalized roadmap & SOP as well as trial operations of secondary market for treasury bonds in next few missions.

<table>
<thead>
<tr>
<th>Mission</th>
<th>Timeframe</th>
<th>Main activities (preliminary)</th>
<th>Workshop</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>Sep. 2018</td>
<td>Kick-off meeting with the core counterparts to discuss TA activities</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>Dec. 2018</td>
<td>Discuss with the core counterparts to identify in details for tasks</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Confirm expected TA activities and outputs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>Feb. 2019</td>
<td>Conduct a base line survey on banks</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Study other countries’ cases and review the legal framework on corporate bonds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Mar. 2019</td>
<td>Explain a fact finding survey and request banks and securities companies to answer questionnaire</td>
<td>Workshop (Introduction)</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Study other countries’ cases and review the legal framework on SOE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5&lt;sup&gt;th&lt;/sup&gt;</td>
<td>May 2019</td>
<td>Visit Chief Financial Officers (CFOs) or other responsible persons of each banks and gather replies of the questionnaire</td>
<td>-</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feedback on replies to securities companies at a monthly dialogue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jun. 2019</td>
<td></td>
<td>Draft a roadmap and SOP based on the survey</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discuss with securities companies on the drafted SOP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Jul. 2019</td>
<td>Study other countries’ cases and design a framework for secondary market</td>
<td>Small WS (Feedback)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Finalize a roadmap and SOP for banks and securities companies according to the framework</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aug. 2019</td>
<td></td>
<td>Trial operations of secondary market for treasury bonds</td>
<td>Small WS (Introduction)</td>
<td></td>
</tr>
<tr>
<td>7&lt;sup&gt;th&lt;/sup&gt;</td>
<td>Sep. 2019</td>
<td>Final review and submission of the final report with recommendations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Japan - ASEAN Finance Technical Assistance Fund (JAFTA)

ASEAN+3 ABMI TACT

Philippines TA (Phase 6)
Myanmar TA (Phase 4)

Activity summary thus far

Presented at 31st ASEAN+3 Bond Market Forum (ABMF) Meeting, Tokyo

24 June 2019

Akifumi Nakanishi
Asia Consulting Department, DIR

Daiwa Institute of Research Ltd.
Corporate Bond in Vietnam

Regulatory and Market Development Update

Jun 2019

Nomura Research Institute, Ltd.
I. Market Overview
<table>
<thead>
<tr>
<th>Issuance type</th>
<th>Regulator</th>
<th>Decree</th>
<th>No. of investors, ex-pro</th>
<th>Listing or profiling</th>
<th>Post-trade reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Offering (PO)</td>
<td>State Securities Commission (SSC)</td>
<td>Decrees 58/2012 and 60/2015</td>
<td>≥ 100</td>
<td>Listed</td>
<td>Put-thru</td>
</tr>
<tr>
<td>Private Placement (PP)</td>
<td>Ministry of Finance (MOF)</td>
<td>Decree 163/2018</td>
<td>≥ 100 (1 year after issuance)</td>
<td>Listed</td>
<td>Put-thru</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>&lt; 100</td>
<td>Bond info website</td>
<td>Unrequired</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Primary market – Issuance

Issuance mostly through Private Placement

Private Placement Issuance p.a.

<table>
<thead>
<tr>
<th>Year</th>
<th>VND trillion</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>23</td>
</tr>
<tr>
<td>2015</td>
<td>43</td>
</tr>
<tr>
<td>2016</td>
<td>130</td>
</tr>
<tr>
<td>2017</td>
<td>115</td>
</tr>
<tr>
<td>2018</td>
<td>224</td>
</tr>
</tbody>
</table>

Public Offering Issuance p.a.

Data) MOF (unofficial approximate estimate)

Data) SSC

(statistically unpublicized)
Private Placement outstanding piling up, and mostly unlisted

Data) MOF (unofficial approximate estimate)

Data) HOSE for every year, and additionally HNX from 2019
### Two dominant issuers

#### Top 10 Issuers by consolidated group (outstanding, 2018 yearend)

<table>
<thead>
<tr>
<th>Issuer</th>
<th>VND trillion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vin conglomerate</td>
<td>32.2</td>
</tr>
<tr>
<td>Masan conglomerate</td>
<td>19.7</td>
</tr>
<tr>
<td>VietinBank</td>
<td>8.2</td>
</tr>
<tr>
<td>Asia Commercial Bank</td>
<td>6.8</td>
</tr>
<tr>
<td>Hoang Anh Gia Lai</td>
<td>4.0</td>
</tr>
<tr>
<td>Novaland</td>
<td>3.3</td>
</tr>
<tr>
<td>VPBank</td>
<td>3.0</td>
</tr>
<tr>
<td>BIDV</td>
<td>2.7</td>
</tr>
<tr>
<td>HCMC Infra. Investment</td>
<td>2.4</td>
</tr>
<tr>
<td>Hoan My Medial</td>
<td>2.3</td>
</tr>
</tbody>
</table>


**Data:** ADB/ABO, HOSE and HNX
Turnover ratio of listed corp. bond higher than gov’t bond

Data) HOSE

Remark) Gov’t bond includes gov’t, gov’t guaranteed and muni bonds
Brokerage market share (corp. bond listed on HOSE)

Listed Corp. Bond Brokerage Market Share (2018)

- Techcom Sec.: 82%
- BIDV Sec.: 2%
- Baoviet Sec.: 2%
- VP Sec.: 3%
- Vietcombank Sec.: 4%
- Others: 7%

Techcom Sec.' Market Share in Listed Corp. Bond Brokerage

Data) HOSE
## 7 bond funds

<table>
<thead>
<tr>
<th>Asset management</th>
<th>Fund name</th>
<th>NAV (VND bil.)</th>
<th>Since</th>
</tr>
</thead>
<tbody>
<tr>
<td>Techcom Capital</td>
<td>Bond Fund</td>
<td>11,040</td>
<td>2015</td>
</tr>
<tr>
<td>VietFund</td>
<td>VN Bond Fund</td>
<td>976</td>
<td>2013</td>
</tr>
<tr>
<td>VinaCapital</td>
<td>Enhanced Fixed Income Fund</td>
<td>247</td>
<td>2013</td>
</tr>
<tr>
<td>Vietin Capital</td>
<td>Bond Fund</td>
<td>131</td>
<td>2017</td>
</tr>
<tr>
<td>Baoviet Fund</td>
<td>Bond Fund</td>
<td>120</td>
<td>2016</td>
</tr>
<tr>
<td>SSI AM</td>
<td>Bond Fund</td>
<td>79</td>
<td>2017</td>
</tr>
<tr>
<td>Techcom Capital</td>
<td>Flexible Bond Fund</td>
<td>42</td>
<td>2018</td>
</tr>
<tr>
<td>MB Capital</td>
<td>VN Bond Fund</td>
<td>(dissolved)</td>
<td>2013</td>
</tr>
</tbody>
</table>

Remark) Onshore funds domiciled in Vietnam and approved by SSC. Names of asset management companies and funds are shortened for simplicity

Data) SSC for list; Techcom Capital, as of 13 Jun 2019; VietFund Management, as of 13 Jun 2019; VinaCapital, as of 13 Jun 2019; Vietin Capital, as of 31 May 2019; Baoviet Fund, as of 12 Jun 2019; SSI Asset Management, as of 3 Jun 2019
A “Bond” Fund – the largest NAV among securities funds

Top 5 Funds in NAV (Open End Funds & ETFs in VN)

<table>
<thead>
<tr>
<th>Fund</th>
<th>NAV (VND billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Techcom &quot;Bond&quot; Fund</td>
<td>11,040</td>
</tr>
<tr>
<td>VietFund VN30 ETF</td>
<td>6,330</td>
</tr>
<tr>
<td>VietFund Securities Investment Fund 1</td>
<td>976</td>
</tr>
<tr>
<td>VietFund Securities Investment Fund 4</td>
<td>760</td>
</tr>
<tr>
<td>VinaCapital Equity Opportunity Fund</td>
<td>653</td>
</tr>
</tbody>
</table>

Data: Techcom Capital, as of 13 Jun 2019; VietFund Management, as of 13 Jun 2019; and VinaCapital, as of 13 Jun 2019.

Remark: Onshore funds domiciled in Vietnam and approved by SSC Data: Techcom Capital.
Central Securities Depository (CSD)

No CSD for vast majority of corp. bonds

<table>
<thead>
<tr>
<th>Depository</th>
<th>Standard securities code</th>
<th>Cash settlement</th>
<th>Put-thru at Stock Exchange</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Listed</strong></td>
<td>VSD</td>
<td>Yes</td>
<td>Yes (mandatory)</td>
</tr>
<tr>
<td><strong>PO unlisted</strong></td>
<td>Unregulated</td>
<td>No</td>
<td>Each bank</td>
</tr>
<tr>
<td><strong>PP unlisted</strong></td>
<td>VSD* or Depository Member</td>
<td>No</td>
<td>BIDV or each bank</td>
</tr>
</tbody>
</table>

* No PP bonds are deposited at VSD, unless listed
II. Legal and Regulatory Development
Decree 163/2018 on Private Placement

HNX Bond Info Website from late 2019 (on Private Placement)

Issuers
- Issuance dossiers
- Issuance results
- Information disclosure

MOF
- Issuance and outstanding report

HNX

VSD or depository member (banks, securities firms)
- Depository info

Bond Info Website
- Market info
Decree 163/2018 on Private Placement

**Bond, issuer and investor info + depository info**

<table>
<thead>
<tr>
<th>By issuer</th>
<th><strong>Decree 163/2018</strong></th>
<th><strong>Decrees 58/2012 &amp; 60/2015</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-issuance</td>
<td>“Bond” info</td>
<td>“Issuer” info</td>
</tr>
<tr>
<td>Issuance result</td>
<td>Annex I</td>
<td>Annex I</td>
</tr>
<tr>
<td>Periodical info</td>
<td>Annex II</td>
<td></td>
</tr>
<tr>
<td>Outstanding and payment</td>
<td></td>
<td>Semi-annual F/S</td>
</tr>
<tr>
<td>Irregular info</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By VSD or depository member</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depository info</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-trade info</td>
<td></td>
<td>Unrequired</td>
</tr>
</tbody>
</table>

**Decree 163/2018**
- Pre-issuance: Annex I
- Issuance result: Annex II
- Periodical info: Outstanding and payment
- Irregular info: Anything material
- Depository info: Semi-annual market info
- Post-trade info: Unrequired

**Annexes**
- Annex I
- Annex II
- Decrees 58/2012 & 60/2015
- Decree 163/2018 on Private Placement

**Periodical info**
- Quarterly F/S
- Anything material

**By VSD or depository member**
- VSD
- Put-thru
## Bond Information Centers

<table>
<thead>
<tr>
<th></th>
<th>HOSE</th>
<th>HNX</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Board / Website</strong></td>
<td>Bond board</td>
<td>Bond board</td>
</tr>
<tr>
<td><strong>Listing status</strong></td>
<td>Listed</td>
<td>Listed</td>
</tr>
<tr>
<td><strong>Trade execution</strong></td>
<td>Put-thru</td>
<td>Put-thru</td>
</tr>
<tr>
<td><strong>Available info</strong></td>
<td>Issuer</td>
<td>Issuance</td>
</tr>
<tr>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Issuance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outstanding</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trade</td>
<td></td>
</tr>
<tr>
<td><strong>Market size</strong></td>
<td>No. of bonds</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>VND trillion</td>
<td>41.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(&gt; 450?)</td>
</tr>
</tbody>
</table>

Data) HOSE and HNX, as of 13 Jun 2019
Securities Law amendment underway, new Decrees to follow

- **2018**: Securities Law, as amended in 2010
  - Decrees 58/2012 and 60/2015
- **2019**: Securities Law, as amended in 2019
- **2020**: New Decree on PO
- **2021 and onward**: New Decree on PP

**Public Offering (PO)**
- Decree 90/2011

**Private Placement (PP)**
- Decree 163/2018
New Decrees under Securities Law to be amended

Challenges for further development

| Pro-only market | • Professional-only distribution regulation  
|                 | • Stricter private placement regulation  |
| CSD and Put-thru | • Compulsory depository at VSD for unlisted bonds  
|                 | • Compulsory put-thru at HNX for unlisted bonds  |
| Public Offering (PO) | • Faster approval for listed/public companies  
|                 | • Compulsory listing of PO bonds  |
| Underwriter | • Commercial banks as underwriter/arranger of bonds  |
| Personal Income Tax (PIT)* | • 5% on bond coupon vs. nontax on deposit products  
|                 | • 0.1% on sales proceed (instead of capital gain tax)  |

*Remark) PIT for tax resident
Japan - ASEAN Financial Technical Assistance Fund (JAFTA)

TA Implementation Scheme

Sponsor: MOF, Japan
Provider: ASEAN Secretariat
Consultant: Nomura Research Institute (NRI)
Counterpart: MOF/SSC, Vietnam
Contact

NRI ASEAN Financial Team

Cambodia  Kengo Mizuno  k-mizuno@nri.co.jp
Indonesia  Manabu Tsurutani  m-tsurutani@nri.co.jp
Lao PDR  Kengo Mizuno  k-mizuno@nri.co.jp
Vietnam  Kengo Mizuno  k-mizuno@nri.co.jp

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ASEAN+3 BOND MARKET FORUM
Asia’s Economic Outlook, Developments in Emerging East Asian Bond Markets, and AsianBondsOnline (ABO) Website Updates

Donghyun Park, Principal Economist
Shu Tian, Economist

Economic Research and Regional Cooperation Department
Asian Development Bank
(1) Developing Asia’s short-run growth prospects

**GDP growth (%)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual</th>
<th>ADO forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>6.5</td>
<td>6.4</td>
</tr>
<tr>
<td>2018</td>
<td>6.6</td>
<td>6.2</td>
</tr>
<tr>
<td>2019</td>
<td>6.4</td>
<td>6.2</td>
</tr>
<tr>
<td>2020</td>
<td>6.1</td>
<td>5.6</td>
</tr>
</tbody>
</table>

**Major industrial economies**

<table>
<thead>
<tr>
<th>Region</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>2.2</td>
<td>2.9</td>
<td>2.4</td>
<td>1.9</td>
</tr>
<tr>
<td>Euro area</td>
<td>2.5</td>
<td>1.8</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Japan</td>
<td>1.9</td>
<td>0.8</td>
<td>0.8</td>
<td>0.6</td>
</tr>
</tbody>
</table>

*Average growth rates are weighed by gross national income, Atlas method.

Global trade and activity slowed and trade tensions escalated...

PMI = purchasing managers’ index, PRC = People’s Republic of China, sa = seasonally adjusted, US = United States.
Sources: Haver Analytics; CEIC Data Company.
…but domestic demand has supported the region’s growth.

Demand-side contributions to growth, selected economies, 2018

Notes: ASEAN = Association of Southeast Asian Nations, HKG = Hong Kong, China, IND = India, INO = Indonesia, KOR = Republic of Korea, MAL = Malaysia, NIEs = newly industrialized economies, PHI = Philippines, PRC = People’s Republic of China, SIN = Singapore, TAP = Taipei, China, THA = Thailand, VIE = Viet Nam.

Data for India are in Fiscal Years which covers the period 1 April to 30 March. Components do not add to GDP growth due to Statistical Discrepancy.

Source: Haver Analytics (accessed 10 March 2019); ADB estimates.
Developing Asia’s more open sub-regions will see more of a slowdown in 2019.

<table>
<thead>
<tr>
<th>Region</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>Region</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>East Asia</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>South Asia</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>6.0</td>
<td>5.7</td>
<td>5.5</td>
<td>Bangladesh</td>
<td>6.7</td>
<td>6.8</td>
<td>6.9</td>
</tr>
<tr>
<td>People's Republic of China</td>
<td>6.6</td>
<td>6.3</td>
<td>6.1</td>
<td>India</td>
<td>7.9</td>
<td>8.0</td>
<td>8.0</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>2.7</td>
<td>2.5</td>
<td>2.5</td>
<td>Pakistan</td>
<td>5.2</td>
<td>3.9</td>
<td>3.6</td>
</tr>
<tr>
<td>Taipei, China</td>
<td>2.6</td>
<td>2.2</td>
<td>2.0</td>
<td><strong>Central Asia</strong></td>
<td>4.4</td>
<td>4.2</td>
<td>4.2</td>
</tr>
<tr>
<td><strong>Southeast Asia</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Azerbaijan</strong></td>
<td>1.4</td>
<td>2.5</td>
<td>2.7</td>
</tr>
<tr>
<td>Indonesia</td>
<td>5.1</td>
<td>4.9</td>
<td>5.0</td>
<td>Kazakhstan</td>
<td>4.1</td>
<td>3.5</td>
<td>3.3</td>
</tr>
<tr>
<td>Malaysia</td>
<td>5.2</td>
<td>5.2</td>
<td>5.3</td>
<td><strong>The Pacific</strong></td>
<td>0.9</td>
<td>3.5</td>
<td>3.2</td>
</tr>
<tr>
<td>Philippines</td>
<td>4.7</td>
<td>4.5</td>
<td>4.7</td>
<td>Singapore</td>
<td>4.1</td>
<td>3.9</td>
<td>3.7</td>
</tr>
<tr>
<td>Thailand</td>
<td>6.2</td>
<td>6.4</td>
<td>6.4</td>
<td>Fiji</td>
<td>3.2</td>
<td>3.0</td>
<td>3.1</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>7.1</td>
<td>6.8</td>
<td>6.7</td>
<td>Papua New Guinea</td>
<td>0.2</td>
<td>3.7</td>
<td>3.1</td>
</tr>
<tr>
<td><strong>Developing Asia</strong></td>
<td>5.9</td>
<td>5.7</td>
<td>5.6</td>
<td><strong>Excluding NIEs</strong></td>
<td>6.4</td>
<td>6.2</td>
<td>6.1</td>
</tr>
</tbody>
</table>

Note: Red arrow = lower than the previous year. Green arrow = higher than the previous year. No sign = no change.
Assessment of the Effects of PRC-US Trade Tensions: Methodology

Objective
• Evaluate the global, regional, country- and sector-specific impacts of the current trade conflict

Channels
• Quantify the direct impact of tariffs, at the product level
• Examine indirect impact via production linkages, using international input-output data and models
• Allow for possible trade redirection toward suppliers not hit by tariffs

Scenarios
• Examine impact of current scenario, which includes all implemented measures as of November 2018; a bilateral escalation scenario where 25% tariffs are imposed on all US-PRC trade; and “worse-case” scenario that adds a 25% tariff on all autos/parts

Data
• ADB Multi-Regional Input-Output Table (2017); covers whole economy (35 sectors) in 62 countries plus one that captures "rest of the world"; 90% of world GDP, 24 economies in developing Asia*

* Bangladesh, Bhutan, Brunei Darussalam, Cambodia, the People’s Republic of China, Fiji, Hong Kong, China, India, Indonesia, Kazakhstan, Republic of Korea, Kyrgyz Republic, Lao People’s Democratic Republic, Malaysia, Maldives, Mongolia, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Taipei, China, Thailand and Viet Nam
Global effects: current tariffs would have a small impact on world GDP, but escalation presents substantial risks

Note: The blue bars represent the estimated GDP impact under the current scenario. The subsequent two peach bars represent the incremental impact brought about by the US-PRC trade threats (25% on all bilateral exports) and the auto sector (tariffs on all auto and auto parts traded globally) escalation respectively. The red bars represent the sum of all the impacts under the worse-case scenario.
Source: Staff calculations.
The protagonists: the PRC and the US are negatively affected in each scenario, with a larger impact on the PRC.

Source: Staff calculations.
Uncertainty and reduced confidence can exacerbate negative effects on world, US, and PRC

Potential effects through confidence and market uncertainty:
Comparison of IMF and ADB simulation results

<table>
<thead>
<tr>
<th>% deviation from no-conflict scenario</th>
<th>IMF</th>
<th>ADB</th>
<th>IMF</th>
<th>ADB</th>
<th>IMF</th>
<th>ADB</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>-2.0</td>
<td>-1.5</td>
<td>-2.0</td>
<td>-1.5</td>
<td>-2.0</td>
<td>-1.5</td>
</tr>
<tr>
<td>PRC</td>
<td>-1.0</td>
<td>-1.0</td>
<td>-1.0</td>
<td>-1.0</td>
<td>-1.0</td>
<td>-1.0</td>
</tr>
<tr>
<td>World</td>
<td>-1.0</td>
<td>-1.0</td>
<td>-1.0</td>
<td>-1.0</td>
<td>-1.0</td>
<td>-1.0</td>
</tr>
</tbody>
</table>

Source: October 2018 IMF World Economic Outlook, September 2018 ADB Asian Development Outlook Update, authors’ calculations.
Major central banks held off on monetary tightening amidst global growth slowdown.

- US Federal Reserve, European Central Bank, and Bank of Japan downgraded their GDP growth forecasts in March.
- All three central banks signaled that they will keep their current policy rates unchanged in 2019.

Local currency government bond yields fell in most emerging East Asian markets on the dovish shift of advanced economy central banks and uncertainties regarding the global economy.

- The Philippines and Malaysia cut their respective policy rates by 25 basis points each in May.
Looming uncertainty sours investors’ sentiment

Bond yield fell and CDS spread rose

Changes in 10-year LCY Government Bond Y

Credit Default Swap Spreads (Senior 5-year)

Note. Data reflect changes between 1 March and 15 May 2019.
Source: AsianBondsOnline calculations based on Bloomberg LP data.
Currencies Weaken, Stock Markets Retreat

Changes in FX Rates (%)

- Thailand
- Hong Kong, China
- Viet Nam
- Singapore
- Philippines
- Indonesia
- Malaysia
- People's Republic of China
- Republic of Korea

Changes in Equity Indexes (%)

- Singapore
- Vietnam
- Philippines
- Thailand
- People's Republic of China
- Hong Kong, China
- Republic of Korea
- Malaysia
- Indonesia

Note. Data reflect changes between 1 March and 15 May 2019.
Source: AsianBondsOnline calculations based on Bloomberg LP data.
Foreign Holdings are trending down in most markets

Foreign Holdings in LCY Government Bonds

LHS = left-hand side, RHS = right-hand side.
Note: Data as of end-September 2018; except for Japan, the Republic of Korea, and Thailand (end-June 2018).
Source: AsianBondsOnline.
Emerging East Asia’s LCY bond market expanded to a size of USD15.0 trillion at the end of March.

- Government bonds continued to account for the majority of emerging East Asia’s total bond stock, representing a 61.7% share.
- Emerging East Asia’s share of LCY bonds outstanding to GDP rose to 81.4% at the end of March.
- Aggregate LCY bond issuance in the region reached USD1.4 trillion in Q1 2019, buoyed by strong issuance volume in government bonds.

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.
Downside risks to the region’s bond markets outweigh upside risks

- Global trade tensions continue to pose the single largest risk to the world economy and financial stability.

- Emerging market currencies have been relatively stable, but vulnerabilities remain as evidenced by the renewed weakness of the Argentine peso and Turkish lira in 2019.

- Volatile global oil prices could have a negative impact on growth and financial stability.

- On the upside, it is widely expected that the US Federal Reserve will not raise interest rates in 2019.
A survey conducted on the AsianbondsOnline portal was run between 21 December 2018 and 28 February 2019.

- 37% found the website Very Easy to use while 18% found it Extremely Easy
- 53% found it very visually appealing
- 56% said it met their needs Very Well while 11% rated it Extremely Well
ABO: recent updates

- Bonds outstanding data was revised to provide greater granularity in government bonds.
  - Government bonds breakdown is now available for central government bonds, central bank bonds and other government bonds.

- Issuance data was also revised to provide similar breakdowns.

- Frequency data for issuance was also updated.
  - When users select annual data, issuance data for all four quarters is added.
ABO: recent updates

• The data for turnover ratio frequencies was also updated.
  • An annual turnover ratio is now available, which uses the total trading volume for the year.
  • Previously, turnover ratios were only available on a quarterly basis.

• The data portal user interface was also improved, users may now select a date range rather than manually selecting each period.

• Asia Bond Monitor March issue was published online and the June issue was launched in Hanoi, Viet Nam on 19 June.
Strengthened ABMI TF collaboration

ABO is working to become the ABMI information platform and publicize achievements of all four task forces of the ABMI.

- ABMF events: working with ABMF to publish historical forum documents
- ASEAN+3 Asian Bond Markets Initiative Medium-term Road Map, 2019-2022
- Good Practices for Developing a Local Currency Bond Market: Lessons from ASEAN+3 Asian Bond Markets Initiative
- CGIF’s activities
- AMBIF issuances
ABO’s to-do list

• Some optimizations were also done in the backend of the website
  • Server upgrades patches for improved security
  • Improvements in the database for faster processing
• Bond market capital flow data will be provided on the website
• Include other information:
  • Macroeconomic data (inflation, etc.)
  • Other types of bond data (ex. foreign currency bond issuance)
  • Trading volume for Philippines
• Continue to collaborate with government agencies to improve and refine data for enhanced transparency and more granularity
AsianBondsOnline is a one-stop source of information on bond markets in emerging East Asia.

Visit https://asianbondsonline.adb.org

dpark@adb.org
stian@adb.org

AsianBondsOnline is a one-stop source of information on bond markets in emerging East Asia.
Bond Market-Related Macroeconomic Updates

Yasuto Watanabe, Deputy Director, AMRO
31st ABMF Meeting, June 2019

Disclaimer: The findings, interpretations, and conclusions expressed in this material represent the views of the author(s) and are not necessarily those of the ASEAN+3 Macroeconomic Research Office (AMRO) or its member authorities. Neither AMRO nor its member authorities shall be responsible for any consequence of the use of the information contained therein.
1. Latest Macroeconomic Updates in ASEAN+3 Region

2. Sovereign Borrowings and Related Issues in ASEAN+3 Region
1. Latest Macroeconomic Updates in ASEAN+3 Region

2. Sovereign Borrowings and Related Issues in ASEAN+3 Region
Global Risk Map (Risks facing ASEAN+3 Region)

Legend:
- Low Impact
- Medium Impact
- High Impact

Imminence
- Short Term (now up to 2 yrs)
- Medium Term (2 to 5 yrs)
- Long Term (> 5 yrs)

Perennial Risks
- Cyber-Attacks
- Climate Change

Likelihood
- High
- Medium
- Low

Risks:
- Escalation of Trade war
- Large swings in asset prices from global MP shifts
- Sharp slowdown in China’s growth
- Sharp deceleration in G3 growth
- Escalation of geopolitical risks
- Large swings in asset prices from global MP shifts
- Sharp slowdown in China’s growth
- Sharp deceleration in G3 growth
- Escalation of geopolitical risks

Source: AMRO
Regional growth in 2019-20 is expected to moderate slightly, below 5%, taking into account the re-escalation of global trade tensions and earlier policy support.

**AMRO’s Revised Baseline Growth Estimates for 2019-20 (Jun ’19)**

<table>
<thead>
<tr>
<th>Region</th>
<th>’18</th>
<th>’19 e/</th>
<th>’20 p/</th>
<th>Average ’19 – ’20</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% y/y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Real GDP Growth</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>6.6</td>
<td>6.2</td>
<td>6.1</td>
<td>5.9</td>
</tr>
<tr>
<td>Japan (Fiscal Yr)</td>
<td>0.6</td>
<td>0.5</td>
<td>0.5</td>
<td>0.4</td>
</tr>
<tr>
<td>Korea</td>
<td>2.7</td>
<td>2.4</td>
<td>2.4</td>
<td>2.1</td>
</tr>
<tr>
<td>ASEAN-4 &amp; VN</td>
<td>5.1</td>
<td>5.0</td>
<td>5.0</td>
<td>4.9</td>
</tr>
<tr>
<td>BCLM</td>
<td>6.7</td>
<td>6.8</td>
<td>6.9</td>
<td>6.9</td>
</tr>
<tr>
<td>HK &amp; SG</td>
<td>3.1</td>
<td>1.7</td>
<td>2.0</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>ASEAN+3</strong></td>
<td>5.3</td>
<td>4.9</td>
<td>4.9</td>
<td>4.7</td>
</tr>
</tbody>
</table>

Legend:
- Upward revision from AREO 2019 (May)
- Downward revision from AREO 2019 (May)
- No change from AREO 2019 (May)

Source: National Authorities, AMRO
Domestic demand in the region has moderated in Q1 2019, after a robust growth in early 2018. In China, recent indicators in April-May suggest a mixed outlook.
Regional exports contracted in Q1 2019, with latest April-May data indicating further weakness

Heatmap of Export Performance Selected Economies (% yoy in USD Terms)

Source: National authorities, Haver Analytics
Sovereign bond yields in the region declined post May 5, tracking global developments, as major CBs signalled more easing ahead.
Foreign portfolio capital flows into regional Bond Markets remained positive so far, despite global uncertainties, underscoring some degree of resilience - Cumulative Jan-May ’19: +USD4.4 bn (ASEAN-4 & Korea), +USD6.0 bn (China)
1. Latest Macroeconomic Updates in ASEAN+3 Region

2. Sovereign Borrowings and Related Issues in ASEAN+3 Region
Sovereign borrowings in EM Asia (mostly in LCYs) have increased at a faster pace post-GFC, particularly in China, partly due to favorable financing cost.
Looking at the debt profile, a large proportion of sovereign borrowings in regional EMs are due to mature in the next 2-4 yrs, indicating heavy refinancing needs ahead.

Source: IIF
Apart from refinancing needs, regional EMs with large foreign ownership of LCY sovereign debt are vulnerable to volatility shocks, particularly during episodes of global risk aversion.
In China, while government debt has risen since 2010, government contingent liabilities related to LGFVs have also increased, posing potential fiscal burden.

China: Estimated Government Contingent Liabilities Related to Local Government Financing Vehicle (LGFVs)

Source: National Authorities, AMRO Staff Estimates
While general government debt has increased across most regional EMs, debt level (in % of GDP) remains largely, at a relatively prudent level
- Public finances are far better in comparison with other EMs peers outside the region (e.g. Latin America)

General Government Debt-to-GDP ratios

Source: National Authorities
So far, the region’s FX reserves remain adequate by conventional metrics of imports and short-term external debt cover, helping to mitigate the external shocks.

Source: National Authorities, IMF, AMRO
## Foreign Reserves

**INTERNATIONAL RESERVES (IN US$ BILLION)**

<table>
<thead>
<tr>
<th>Country</th>
<th>2018</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30-Sep</td>
<td>31-Oct</td>
<td>30-Nov</td>
<td>31-Dec</td>
<td>31-Jan</td>
<td>28-Feb</td>
<td>31-Mar</td>
<td>30-Apr</td>
<td>31-May</td>
</tr>
<tr>
<td>China</td>
<td>3,087.0</td>
<td>3,053.1</td>
<td>3,061.7</td>
<td>3,072.7</td>
<td>3,087.9</td>
<td>3,090.2</td>
<td>3,098.8</td>
<td>3,095.0</td>
<td>3,101.0</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>426.4</td>
<td>423.2</td>
<td>423.2</td>
<td>424.7</td>
<td>432.1</td>
<td>434.4</td>
<td>438.0</td>
<td>436.4</td>
<td>437.8</td>
</tr>
<tr>
<td>Indonesia</td>
<td>114.8</td>
<td>115.2</td>
<td>117.2</td>
<td>120.7</td>
<td>120.1</td>
<td>123.3</td>
<td>124.5</td>
<td>124.3</td>
<td>120.3</td>
</tr>
<tr>
<td>Japan</td>
<td>1,259.7</td>
<td>1,252.9</td>
<td>1,258.3</td>
<td>1,271.0</td>
<td>1,279.3</td>
<td>1,281.8</td>
<td>1,291.8</td>
<td>1,293.5</td>
<td>1,308.0</td>
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<tr>
<td>Korea</td>
<td>403.0</td>
<td>402.8</td>
<td>403.0</td>
<td>403.7</td>
<td>405.5</td>
<td>404.7</td>
<td>405.3</td>
<td>404.0</td>
<td>402.0</td>
</tr>
<tr>
<td>Malaysia</td>
<td>103.0</td>
<td>101.7</td>
<td>102.0</td>
<td>101.4</td>
<td>102.1</td>
<td>102.4</td>
<td>103.0</td>
<td>103.4</td>
<td>102.3</td>
</tr>
<tr>
<td>Philippines</td>
<td>74.9</td>
<td>74.7</td>
<td>75.7</td>
<td>79.2</td>
<td>82.5</td>
<td>82.8</td>
<td>83.6</td>
<td>83.9</td>
<td>85.4</td>
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<tr>
<td>Singapore</td>
<td>291.3</td>
<td>290.3</td>
<td>289.5</td>
<td>287.7</td>
<td>293.9</td>
<td>292.5</td>
<td>295.8</td>
<td>296.8</td>
<td>265.4</td>
</tr>
<tr>
<td>Thailand</td>
<td>204.5</td>
<td>203.4</td>
<td>203.2</td>
<td>205.0</td>
<td>208.3</td>
<td>212.0</td>
<td>212.2</td>
<td>209.7</td>
<td>210.0</td>
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<tr>
<td>Vietnam</td>
<td>56.6</td>
<td>54.8</td>
<td>54.7</td>
<td>55.1</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

**Notes:** Data for China and Vietnam refer to FX reserves  
**Sources:** Bloomberg

---

Note: Data as of 18 June 2019. Latest foreign reserves data for Vietnam are up to Dec 2018.  
Source: National Authorities, IMF
Thank You

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What is the Benchmark reform?
- Market’s View -

Tomoko Morita
Senior Director and Head of Tokyo Office
ISDA
IBOR Footprint

- Interbank rate benchmarks such as LIBOR, EURIBOR and TIBOR (known collectively as the IBORs) are used as benchmarks for more than **$373 trillion** in notional worth of financial contracts.

- OTC derivatives and exchange-traded derivatives comprise about 80% of that total, but many syndicated loans, securitizations, business loans and floating-rate notes (FRNs) also reference an IBOR.

% IBOR linked contracts by total notional outstanding

![IBOR Footprint Diagram]

80% OTC derivatives and ETDs

20% Other

<table>
<thead>
<tr>
<th>Product</th>
<th>Product examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over-the-counter (OTC) derivatives</td>
<td>Interest rate (IR) swaps, forward rate agreements (FRAs), cross-currency swaps</td>
</tr>
<tr>
<td>Exchange-traded derivatives (ETDs)</td>
<td>IR options, IR futures</td>
</tr>
<tr>
<td>Loans</td>
<td>Syndicated loans, business loans, mortgages, credit cards, auto loans, consumer</td>
</tr>
<tr>
<td>Loans</td>
<td>loans, student loans</td>
</tr>
<tr>
<td>Bonds and floating rate notes (FRNs)</td>
<td>Corporate and non-US government bonds, agency notes, leases, trade finance,</td>
</tr>
<tr>
<td></td>
<td>FRNs, covered bonds, capital securities, perpetuals</td>
</tr>
<tr>
<td>Short-term instruments</td>
<td>Repos, reverse repos, time deposits, credit default swaps (CDS), commercial paper</td>
</tr>
<tr>
<td>Securitized products</td>
<td>Mortgage-backed securities (MBS), asset-backed securities (ABS), commercial</td>
</tr>
<tr>
<td></td>
<td>mortgage-backed securities (CMBS), collateralized loan obligation (CLO),</td>
</tr>
<tr>
<td></td>
<td>collateralized mortgage obligation (CMO)</td>
</tr>
<tr>
<td>Other</td>
<td>Late payments, discount rates, overdraft</td>
</tr>
</tbody>
</table>

Background

The IBORs are used as benchmarks for more than $373 trillion worth of financial contracts, but the availability of certain IBORs in the future is uncertain.

Systemic risk

• Negligible activity in the unsecured bank funding market has raised concerns about the durability and longer-term sustainability of certain IBORs. It is not possible for a benchmark to measure a market that does not exist.

• The lack of transactions in the unsecured bank funding market has also resulted in a reluctance by IBOR panel banks to continue submitting to the IBORs. Without transaction data to submit, panel banks have to submit based on judgment, which exposes them to potential liabilities.

• Given the volume of transactions that reference the IBORs, these vulnerabilities create systemic risk.

What should market participants do to avoid the risk?

⇒ Planning for IBOR transition

⇒ Implementing IBOR fallbacks
Preparing for IBOR discontinuation

**Transition**
- Selecting alternative rates to IBOR and use those alternative rates as a reference rate instead of IBOR.
- Term rate may be necessary depending on product types, e.g. loans.
- Voluntary transition process during the lifetime of IBOR.

**Fallback**
- 'Emergency' provisions triggered by the permanent discontinuation of the relevant IBOR.
- Improve contractual robustness.
- Fallback to a nominated alternative rate (e.g. RFRs) plus a spread.
- Spread designed to compensate for lack of IBOR-style bank credit spread in alternative rate.
- Requirement to deal with lack of IBOR-style term fixing structure in alternative rate to make fallback effective.

Permanent Cessation of IBOR
- No Impact
- Trade referencing IBOR
- Trade referencing Alternative Rate (New Trade)
- Fallback to be triggered by IBOR’s permanent cessation

What is the Benchmark reform? - Market’s View -
IBOR Fallbacks: derivatives

- As a result of ISDA market consultation in 2018, **Compounded Setting in Arrears Rate** as term adjustment methodology and **Historical Mean/Median Approach** to the spread adjustment are supported.

  - **Compounded Setting in Arrears Rate**
    - Calculated by compounding the observed overnight rate daily over the relevant term
    - Measures the RFRs over the tenors of the relevant IBORs
    - Calculated and published for each relevant IBOR tenor

  - **Historical Mean/Median Approach**
    - Based on the mean or median spot spread between the IBOR and the compounded RFR calculated over a static lookback period before the fallback is triggered
    - Calculated and published for each relevant IBOR tenor
    - Need to determine parameters – ie, the length of the relevant lookback period
## Alternative Risk-free Rates (RFR)

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>RFR</th>
<th>Secured or Unsecured</th>
<th>Name of Working Groups</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>SOFR</td>
<td>Secured</td>
<td>Alternative Reference Rates Committee (ARRC)</td>
<td>Federal Reserve Bank of New York</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>SONIA</td>
<td>Unsecured</td>
<td>Working Group on Sterling Risk-Free Reference Rates</td>
<td>Bank of England</td>
</tr>
<tr>
<td>Japan</td>
<td>TONA</td>
<td>Unsecured</td>
<td>Study Group on Risk-Free Reference Rate</td>
<td>Bank of Japan</td>
</tr>
<tr>
<td>Switzerland</td>
<td>SARON</td>
<td>Secured</td>
<td>Swiss National Bank National Working Group on Swiss Franc Reference Rates</td>
<td>SIX Swiss Exchange</td>
</tr>
<tr>
<td>Australia</td>
<td>RBA Cash Rate (AONIA)</td>
<td>Unsecured</td>
<td>N/A</td>
<td>Reserve Bank of Australia</td>
</tr>
<tr>
<td>European Union</td>
<td>€STR</td>
<td>Unsecured</td>
<td>European Central Bank Risk-Free Rate Working Group</td>
<td>European Central Bank</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>HONIA</td>
<td>Unsecured</td>
<td>Working Group on Alternative Reference Rates</td>
<td>Treasury Markets Association (TMA)</td>
</tr>
<tr>
<td>Canada</td>
<td>CORRA</td>
<td>Secured</td>
<td>Canadian Alternative Reference Rate Working Group (CARR)</td>
<td>Bank of Canada</td>
</tr>
</tbody>
</table>
What is the Benchmark reform? - Market’s View -
What is the Benchmark reform? - Market’s View -

Transition Roadmap (SOFR)

April 2018
New York Fed/OFR begin publishing SOFR

July 2018
LCH begins clearing SOFR swaps

CME launches SOFR futures

May 2018

October 2018
CME begins clearing SOFR swaps with SOFR PAI/discounting
ICE launches SOFR futures
Financial Accounting Standards Board approves SOFR OIS as a benchmark interest rate for hedge accounting purposes

2018

YE 2019
ISDA to finalize definitions amendments to include fallbacks in new derivatives contracts, including triggers, fallback rates and spread adjustments. Will also publish protocol for legacy trades

YE 2021
LIBOR may cease to be produced
Forward-looking SOFR term reference rate expected

2019

2020

2021

LCH to move to SOFR PAI/discounting on both new and legacy swaps

Forward-looking SOFR term reference rate expected
What is the Benchmark reform? - Market’s View -
Current Discussion in Japan

- “Reforming Major Interest Rate Benchmarks” published by the FSB in July 2014 recommends multi-rate approach.

- Multi-rate approach:
  - Strengthening existing IBORs
  - Developing alternative, nearly risk-free reference rates

- “Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks” was established to successfully implement a multi-rate approach in Japan.

- With identification of RFR in December 2016 and implementation of the JBA TIBOR reform in July 2017, the Committee set the following objectives:
  1. developing recommendations for the stocktaking of ideas on the appropriate choice and usage of JPY interest rate benchmarks;
  2. identifying specific challenges arising from (i) and proposing solutions;
  3. developing transition plans based on (i) and (ii) for a new framework enabling the use of JPY interest rate benchmarks.
AMBF Tokyo
24th June 2019

Money Market
Benchmark Reform
Part I: Overview & Impact Assessment
Part I: Overview & Impact Assessment

Firms need to assess the impact of the transition across their products, clients and infrastructure.

Closing Keynote at the Bloomberg-ISDA Benchmark Conference: Benchmark Regulation and Migration by Howard Lee, Deputy Chief Executive, Hong Kong Monetary Authority - 30 May 2019

Excerpts:
- “Moving to new IBORs with fundamentally different determination methodologies, or switching to alternative reference rates is a very complex task.”
- “IBORs are used in nearly every aspect of their business – from trading, to risk management, to pricing and valuation. Preparing for the transition means they need to develop the necessary operational and system capability for their global operations.”
- “Undertaking detailed risk assessment and formulating an action plan would be next.”

• Business and Front Office
• Operations
• Treasury
• Valuations and Market Risk
• IT & Infrastructure
Part I: Overview & Impact Assessment

Firms need to assess the impact of the transition across their products, clients and infrastructure.

1. Data for new curve construction
2. Will trading systems be ready for new instruments trade execution and clearing
Firms need to assess the impact of the transition across their products, clients and infrastructure.

1. Can system handle collateralization management
2. Considerations for settlement and cash flow
3. How to identify contracts that are tied in to previous benchmarks
Firms need to assess the impact of the transition across their products, clients and infrastructure.

1. Asset Liability Management workflow change
2. How will new issuance and hedging be done?
3. Implications on transfer pricing
Part I: Overview & Impact Assessment

Firms need to assess the impact of the transition across their products, clients and infrastructure.

1. Valuation impact (term structure curve / secured vs unsecured indices)
2. Risk Management
3. Price testing, modelling review and market risk sensitivities
Firms need to assess the impact of the transition across their products, clients and infrastructure.

1. Technology enhancement to internal systems
2. Data management
3. Adjusting relevant and connecting support systems
Part II:
Specific Market Related Issues
# USD LIBOR to SOFR Transition

Migration from USD LIBOR to USD SOFR a 2 Factor problem, prompting ISDA consultations on Fallback provisions.

<table>
<thead>
<tr>
<th>1) Credit Risk</th>
<th>2) Tenor</th>
</tr>
</thead>
<tbody>
<tr>
<td>USD LIBOR</td>
<td>Unsecured Bilateral Loans</td>
</tr>
<tr>
<td>USD SOFR</td>
<td>Securitized Lending (Repo)</td>
</tr>
</tbody>
</table>
### Impact of USD LIBOR on Asian Money Market Reference Rates

<table>
<thead>
<tr>
<th>Currency</th>
<th>Reference Rate</th>
<th>Tenors</th>
</tr>
</thead>
<tbody>
<tr>
<td>SGD</td>
<td>SOR</td>
<td>O/N, 1M, 3M, 6M</td>
</tr>
<tr>
<td>THB</td>
<td>THBFIX</td>
<td>O/N, 1M, 3M, 6M, 1Y</td>
</tr>
<tr>
<td>PHP</td>
<td>PHIREF</td>
<td>O/N, SW, 1M, 2M, 3M, 6M, 1Y</td>
</tr>
<tr>
<td>INR</td>
<td>MIFOR</td>
<td>O/N, 14D, 2M, 3M</td>
</tr>
</tbody>
</table>

Some Reference Rates Calculated from USD LIBOR & FX Forwards
## ISDA Consultation 2018/2019 Responses

### Spread Adjustment Method

<table>
<thead>
<tr>
<th>Forward Market Term Structure</th>
<th>Historical Mean/Median</th>
<th>Spot Spread</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complex</td>
<td>Reproducible</td>
<td>Large Fixing event</td>
</tr>
<tr>
<td>Model dependent</td>
<td>Simple</td>
<td>No Term Structure</td>
</tr>
<tr>
<td>Not NPV neutral</td>
<td>NPV neutral</td>
<td>Not NPV neutral</td>
</tr>
</tbody>
</table>

### Interest Rate Adjustment

<table>
<thead>
<tr>
<th>Spot Overnight</th>
<th>Convexity Adjusted</th>
<th>Compounded in Arrears</th>
<th>Compounded in Advanced</th>
<th>Alternative?</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Term Structure</td>
<td></td>
<td>Slightly better than Spot</td>
<td>Interest known at period end</td>
<td>Term Risk Free Rates</td>
</tr>
<tr>
<td>Huge Volatility for SOFR! Simple</td>
<td></td>
<td>Huge Volatility for SOFR! Simple</td>
<td>Wrong Observation Period!</td>
<td>Can use Futures or OTC</td>
</tr>
<tr>
<td>Simple</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Deliverable & Non Deliverable CCS: New Instruments & New Data

**Overview**
- **Currency**: JPY
- **Currency2**: USD
- **Settlement**: T+2 days, Jun 14, 2019
- **Term**: 10 Year, Jun 14, 2029
- **Discounting OIS**: N/A
- **MTM**: N/A

<table>
<thead>
<tr>
<th>Fixed Leg</th>
<th>Float Leg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day Count</td>
<td>ACT/360</td>
</tr>
<tr>
<td>Pay Freq</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Index</td>
<td>JPY0002M Index</td>
</tr>
<tr>
<td>Reset Freq</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Bus Adj</td>
<td>Mod Following</td>
</tr>
<tr>
<td>Adjust</td>
<td>Accr and Pay Dates</td>
</tr>
<tr>
<td>Roll Conv</td>
<td>Backward (EOM)</td>
</tr>
<tr>
<td>Calc Cal</td>
<td>JN, EN, FD</td>
</tr>
</tbody>
</table>

**Properties**
- **Price Chart**
  - GP

### XCCY Basis Swaps: New Instruments & New Data

**Overview**
- **Currency**: JPY
- **Currency2**: USD
- **Settlement**: T+2 days, Jun 14, 2019
- **Term**: 10 Year, Jun 14, 2029
- **Discounting OIS**: N/A
- **MTM**: N/A

<table>
<thead>
<tr>
<th>Fixed Leg</th>
<th>Float Leg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day Count</td>
<td>ACT/360</td>
</tr>
<tr>
<td>Pay Freq</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Index</td>
<td>US0003M Index</td>
</tr>
<tr>
<td>Reset Freq</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Bus Adj</td>
<td>Mod Following</td>
</tr>
<tr>
<td>Adjust</td>
<td>Accr and Pay Dates</td>
</tr>
<tr>
<td>Roll Conv</td>
<td>Backward (EOM)</td>
</tr>
<tr>
<td>Calc Cal</td>
<td>JN, EN, FD</td>
</tr>
</tbody>
</table>

**Properties**
- **Price Chart**
  - GP
Cash Markets

- ALM Funding
- Changes to issuance and hedging programs
- Transfer pricing

ASEAN +3 Consideration

- Issuance of floaters on new ASIA Overnight Indices?
- TONAR, INDONIA, AONIA, HONIA

Banks should start considering HONIA products – HKMA
June 10, 2019
Manesh Samtani, Regulation Asia

HKMA Deputy Chief Howard Lee says global banks are the “best equipped” and should be taking the lead in the transition to alternative reference rates. Market participants should start exploring how to incorporate HONIA (HKD Overnight Index Average) into their businesses, a senior official at the HKMA (Hong Kong Monetary Authority) said.

Rapid Rise in USD SOFR & GBP SONIA Floating Rate Notes

<table>
<thead>
<tr>
<th>Currency</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBP SONIA Issuance as % of Total FRN Issuance</td>
<td>0%</td>
<td>14%</td>
<td>70%</td>
</tr>
<tr>
<td>USD SOFR Issuance as % of Total FRN Issuance</td>
<td>0%</td>
<td>4%</td>
<td>15%</td>
</tr>
</tbody>
</table>
Cross Currency Swaps

1. For a single leg Libor-based the interest payments for the RFR
2. The red text show the 2 different settlement dates for AUD and USD payments
3. Market practice may set the payment dates to the date determined by the currency with the longest lag (TN+2)
   AUD settlement moved to align with USD payment
4. The notional reset payment dates are now on a different day to the RFR-based interest payments.
   The new spot rate is set 2 business days before each relevant period starts to align with FX market conventions. The actual reset occurs on the first day of the relevant period which is before the interest payments.
   The cross currency RFR swap now looks like this (after moving the notional reset to the next leg):
Fragmentation Across Markets

Derivative Markets
Overnight Rates Compounded
Interest paid with a delay

Bond Markets
No Payment Delays
Lockout Periods
Earlier Resets

Loans Markets
Want a single Rate

Fragmentation Within Securities Markets

Reset taken 5 Days prior to allow Timely calculation of Interest

Resets stopped prior to Payment by 4 days to allow timely payment of Interest.
Summary
Q&A
The BLOOMBERG TERMINAL service and Bloomberg data products (the “Services”) are owned and distributed by Bloomberg Finance L.P. (“BFLP”) except that Bloomberg L.P. and its subsidiaries (“BLP”) distribute these products in Argentina, Australia and certain jurisdictions in the Pacific islands, Bermuda, China, India, Japan, Korea and New Zealand. BLP provides BFLP with global marketing and operational support. The following are trademarks and service marks of BFLP, a Delaware limited partnership, or its subsidiaries: BLOOMBERG, BLOOMBERG ANYWHERE, BLOOMBERG MARKETS, BLOOMBERG NEWS, BLOOMBERG PROFESSIONAL, BLOOMBERG TERMINAL and BLOOMBERG.COM. Absence of any trademark or service mark from this list does not waive Bloomberg’s intellectual property rights in that name, mark or logo. All rights reserved.
Reforms to Financial Benchmarks

Simonetta Iannotti, FSB Secretariat
31st ASEAN Bond Market Forum Meeting – Sub Forum 1
24 June 2019
Tokyo
Key Interest Rate Benchmarks

• **LIBOR**
  - calculated from panel of contributing banks
  - rate at which contributing bank estimates it could borrow on an unsecured basis
  - currencies include CHF, EUR, GBP, JPY, USD

• **Other key “IBORs”**
  - EUR: Euro Interbank Offered Rate (EURIBOR)
  - JPY: Tokyo Interbank Offered Rate (TIBOR)

• **Other “IBORs” covered by ISDA recent consultation**
  - Hong Kong’s HIBOR
  - Canada’s CDOR
  - Singapore’s SOR
  - Australia’s BBSW (Bank Bill Swap Rate)
Market Integrity Concerns

• Underlying conflict of interest
  – Lower LIBOR quote would reduce payments received or paid on any instruments linked to LIBOR
  – During financial crisis banks would appear more creditworthy than in reality
  – Reference rate may affect P&L shown on other items
    • lending book, deposit book, derivatives book

• Growing concerns about mis-reporting
  – Confidence in the reliability and robustness of major interest rate benchmarks was undermined by attempted market manipulation, false reporting
  – Increased media coverage
  – By 2012, several formal regulatory actions underway:
    • Canada, EU, Japan, Switzerland, UK, US
  – Other authorities reviewing similar reference rates
  – Banks withdrawing from panels

• Decreasing liquidity in underlying market

  Increase in official sector concerns
International Response

• Which rates and how relevant? At the time of the FSB report

<table>
<thead>
<tr>
<th>Rate</th>
<th>Currency Type</th>
<th>Notional o/s (STN)¹</th>
<th>Main Maturity Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIBOR</td>
<td>USD</td>
<td>$150–160 TN</td>
<td>1 week, 1m and 3m and 6m</td>
</tr>
<tr>
<td>GBP</td>
<td></td>
<td>$30 TN</td>
<td>3m; then 1m &amp; 6m</td>
</tr>
<tr>
<td>JPY</td>
<td></td>
<td>$30 TN</td>
<td>3m and 6m</td>
</tr>
<tr>
<td>CHF</td>
<td></td>
<td>$6.5 TN</td>
<td>3m and 6m</td>
</tr>
<tr>
<td>EUR</td>
<td></td>
<td>$2 TN</td>
<td>Low across all tenors</td>
</tr>
<tr>
<td>EURIBOR</td>
<td>EUR</td>
<td>$150–180 TN</td>
<td>1m, 3m and 6m</td>
</tr>
<tr>
<td>TIBOR</td>
<td>JPY</td>
<td>$5 TN</td>
<td>6m and 3m</td>
</tr>
</tbody>
</table>

¹ Gross Volume

• As of now: USD Libor exposure at US$ 200 tn., 1 m, 3m and 6m
International Response

Concerns about ongoing credibility/viability
- Potential significant market disruption if these rates disappear

G20 tasked the Financial Stability Board (FSB) in February 2013 to undertake a review of the most widely used benchmarks globally.

- FSB
  - Set up Official Sector Steering Group (OSSG) in mid-2013
  - Focus was on the three major interbank offered rate (IBOR) benchmarks (LIBOR, EURIBOR and TIBOR), establishing currency subgroups
  - (current) Co-chairs: Andrew Bailey, UK FCA
    John Williams, US Federal Reserve
  - OSSG established Market Participants Group of global buy/sell side institutions to analyse potential alternatives to existing benchmarks and possible transition strategies

- IOSCO
  - July 2013: finalised Principles for Financial Benchmarks, endorsed by the FSB on the recommendation of the OSSG.
OSSG Recommendations

• **FSB OSSG Report published in 2014**, recommended

• Strengthen existing benchmarks → **IBOR+**
  - Benchmark administrators
    • Enhance with actual transactions data
    • Other methodological & operational improvements to meet IOSCO principles
  - OSSG currency subgroups
    • Support / monitor above
    • Transition strategies / address legal obstacles

• Develop near risk-free reference rates
  • Work with and encourage market participants to explore and develop such rates

• MPG also highlighted the weakness in the fallback provisions/language in contracts referencing IBORs

• Ongoing FSB monitoring
  • Latest report November 2018
From 2014 to the middle of 2017 the global benchmark reform efforts focused on:

- Making existing IBORs more transaction based – primarily done by the benchmark administrators
- Refining existing or creating new RFRs – done by public-private partnerships
- Developing more robust fallback language for both derivative and cash products – done by public-private partnerships and industry associations

Expectation of market participants was that most jurisdictions would continue to have both an IBOR and an RFR as viable benchmarks – commonly referred to as the “multi-rate approach”

However, efforts to build transaction-based IBORs failed, and multiple rate approach no longer viable for LIBOR
…and recent developments

• In July 2017 the UK FCA announced that they will no longer compel LIBOR panel member banks to contribute to the benchmark after the end of 2021.
  – FCA stated that they had to engage in significant efforts to keep banks on panels and brokered the voluntary agreement to secure some further stability for LIBOR.
  – FCA warned market participants that they should expect now LIBOR to stop after 2021 – a matter of how, not if

• Exposure to LIBOR contributes for the bulk of the global IBOR exposure, with the vast majority to USD LIBOR

• According to the LMA close to 120 jurisdictions have exposure to LIBOR (mostly USD) through syndicated loans
Benchmark reforms have major global implications

- Key areas of focus since the UK FCA speech:
  - Market participants assessing their exposure to LIBOR
  - Whether a term RFR is needed to support the transition to overnight RFR benchmarks
  - Developing or modifying financial market infrastructures to handle overnight RFRs
  - Developing robust IBOR fallbacks for new products and having processes to handle legacy contracts
Current FSB OSSG Role

• Monitor and coordinate the international benchmark reform efforts.
  – OSSG meets two times per year to discuss key issues.
  – Two global OSSG subgroups formed for more in-depth discussion/analysis:
    • Contractual Robustness subgroup (formed in 2016) engages regularly with ISDA and with other stakeholders on enhancing the contractual robustness in derivative and cash products
    • Newly formed Accounting, Regulatory and Tax Issues subgroup will focus on accounting, regulatory and tax issues arising from the transition to RFRs. Highlight potential areas for global coordination.
Key issues for developing markets

• Understanding the full extent of the use of LIBOR in your financial system or by your financial market participants.
  – Are your financial institutions ready for the discontinuation of LIBOR by the end of 2021?

  • Undertake a risk assessment of the potential prudential and conduct impacts associated with transition in a range of different scenarios, including LIBOR discontinuation

   • Assessment to be proportionate to the extent of firms’ usage of LIBOR and LIBOR-referencing instruments

  – Are they ready to transact in an overnight RFR benchmark environment?
Evolution of benchmark reforms

June 2013
FSB establishes OSSG

July 2013
IOSCO publishes its Principles for Financial Benchmarks

Nov. 2014
ARRC formed

Feb. 2013
G-20 tasks FSB to improve oversight and governance frameworks of benchmarks

Mar. 2015
Working group on Sterling RFR formed

July 2014
FSB Report: Reforming Major Interest Rate Benchmarks is published

June 2016
EU BMR comes into force (effective Jan. 2018)

June 2017
SOFR selected as preferred USD RFR

July 2017
Andrew Bailey announces that FCA would not compel banks to submit LIBOR quotes after 2021

Mar. 2018
CARR created

Apr. 2018
SOFR published
Reformed SONIA published

Sept. 2017
Working group created to identify EUR RFR

July 2018
Recommended "enhanced CORRA" as the RFR

Sep. 2018
WG on euro RFR recommends €STR as the RFR

April/May 2019
ISDA second fallback consultation (USD, CAD, HKD, SGD)

Dec. 2018
ISDA Fallback Consultation results published (GBP, JPY, CHF, AUD)
Thank you
www.fsb.org

<table>
<thead>
<tr>
<th>Organization</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Conduct Authority (FCA)</td>
<td><a href="https://www.fca.org.uk/markets/benchmarks">https://www.fca.org.uk/markets/benchmarks</a></td>
</tr>
<tr>
<td>ICE Benchmark Administration (IBA)</td>
<td><a href="https://www.theice.com/iba">https://www.theice.com/iba</a></td>
</tr>
</tbody>
</table>
Are alternative rates robust?

- SOFR

Source: [https://apps.newyorkfed.org/markets/autorates/sofr](https://apps.newyorkfed.org/markets/autorates/sofr)
Are alternative rates robust?

- SONIA

**Key Liquidity Indicators**

<table>
<thead>
<tr>
<th>Listed Futures (data provided by futures exchanges)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregated across all products as at end-April</td>
</tr>
<tr>
<td>Monthly traded volume</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>GBP LIBOR</td>
</tr>
<tr>
<td>SONIA</td>
</tr>
</tbody>
</table>

**LCH Swaps Statistics (from LCH website)**

<table>
<thead>
<tr>
<th>As at end-April (£billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notional traded April</td>
</tr>
<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td>GBP LIBOR (incl. FRAs)</td>
</tr>
<tr>
<td>SONIA</td>
</tr>
</tbody>
</table>

Source: [Working group on Sterling Risk-Free Reference Rate – Newsletter May 2019](https://working-group.org.uk/)

15
## FSB OSSG member institutions

<table>
<thead>
<tr>
<th>Organization</th>
<th>Organization</th>
</tr>
</thead>
</table>
| Andrew Bailey, CEO (Co-chair)  
Financial Conduct Authority | Financial Services Agency (Japan)  
Hong Kong Monetary Authority |
| John Williams, President and CEO (Co-chair)  
New York Federal Reserve Bank | IOSCO |
| Bank Indonesia | Monetary Authority of Singapore |
| Bank of Canada | Reserve Bank of Australia |
| Bank of England | Saudi Arabian Monetary Authority |
| Bank of Japan | South African Reserve Bank |
| Bank of Mexico | Swiss National Bank |
| Central Bank of Brazil | Commodity Futures Trading Commission |
| EBA | The OSSG is supported by the FSB Secretariat |
| ECB | |
| ESMA | |
| European Commission | |
| Federal Reserve Board of Governors | |
# Key Global RFRs

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>RFR</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>Secured overnight financing rate (SOFR)</td>
<td>Secured overnight repo rate Calculated by FRBNY</td>
</tr>
<tr>
<td>UK</td>
<td>Reformed Sterling overnight Index Average (SONIA)</td>
<td>Unsecured overnight rate Calculated by Bank of England</td>
</tr>
<tr>
<td>Europe</td>
<td>Euro short-term rate (€STR)</td>
<td>Unsecured overnight rate Calculated by ECB (October 2, 2019)</td>
</tr>
<tr>
<td>Japan</td>
<td>Tokyo overnight average rate (TONA)</td>
<td>Uncollateralized call rate Calculated by Bank of Japan</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Swiss Average Rate Overnight (SARON)</td>
<td>Secured overnight rate Published by SIX Swiss Exchange</td>
</tr>
<tr>
<td>Canada</td>
<td>Canadian Overnight Repo Rate Average (CORRA)</td>
<td>Secured overnight rate Published by Refinitiv</td>
</tr>
<tr>
<td>Australia</td>
<td>Interbank overnight cash rate (Cash Rate)</td>
<td>Unsecured overnight rate Calculated by the Reserve Bank of Australia</td>
</tr>
</tbody>
</table>
## Committees Working on Interest Rate Benchmark Reform

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Committees</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>Alternative Reference Rate Committee (ARRC)</td>
<td><a href="https://www.newyorkfed.org/arrc">https://www.newyorkfed.org/arrc</a></td>
</tr>
<tr>
<td>Japan</td>
<td>Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks</td>
<td><a href="https://www.boj.or.jp/en/paym/market/jpy_cmte/index.htm/">https://www.boj.or.jp/en/paym/market/jpy_cmte/index.htm/</a></td>
</tr>
<tr>
<td>Canada</td>
<td>Canadian Alternative Reference Rate working group (CARR)</td>
<td><a href="https://www.bankofcanada.ca/markets/canadian-alternative-reference-rate-working-group/">https://www.bankofcanada.ca/markets/canadian-alternative-reference-rate-working-group/</a></td>
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