### 28th ASEAN+3 Bond Market Forum (ABMF) Meeting

**Event Details:**
- **Dates:** 18-21 June 2018
- **Venue:** Seinan Gakuin University, Fukuoka City, Japan

**Day 2: 19 June 2018**

**Venue:** Multi-Purpose Hall, 1st Floor, Centennial Hall

<table>
<thead>
<tr>
<th>Time</th>
<th>Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30</td>
<td>Registration</td>
</tr>
<tr>
<td>09:00</td>
<td>Opening Remarks of SF1 by Mr. Koji Ito, Sub Forum 1 Chair</td>
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<tr>
<td>09:10</td>
<td>Session 1: Current state of Mongolian bond market by Mr. Zorigtbat Tseveenjav, Ministry of Finance, Mongolia</td>
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<tr>
<td>09:40</td>
<td>Session 2: Update of ASEAN+3 Multi-Currency Bond Issuance Framework by ADB Secretariat</td>
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<td></td>
<td>- Pilot issue and possible enlargement of AMBIF participating markets</td>
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<td>09:55</td>
<td>Session 3: Update of ASEAN+3 Bond Market Guides by Prof. Shigehito Inukai and Mr. Matthias Schmidt, ADB Secretariat</td>
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<tr>
<td>10:10</td>
<td>Session 4: New ASEAN3 Government Bond Index by Mr. Mohd Shaharul, Bond Pricing Agency Malaysia</td>
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<td>10:30</td>
<td>Coffee Break</td>
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<td>10:50</td>
<td>Session 5: Progress of Working Group on Information Platform by Dr. Donghyn Park, Principal Economist and Dr. Shu Tian, Economist of AsianBondsOnline (ADB)</td>
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<td>11:10</td>
<td>Session 6: Comparison of ASEAN 6 corporate bond markets by Dr. Dong Woo Rhee, Chief Financial Officer, Credit Guarantee and Investment Facility</td>
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<tr>
<td>11:40</td>
<td>Session 7: AMBIF Taxation Study by Mr. Kosintr Puongsophol, ADB Secretariat</td>
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<td>12:00</td>
<td>Wrap-up by ADB Secretariat</td>
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<tr>
<td>12:10</td>
<td>Closing Remarks by Mr. Koji Ito, Sub Forum 1 Chair</td>
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<tr>
<td>Time</td>
<td>Session/Remarks</td>
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<tr>
<td>12:15 – 13:30</td>
<td>Lunch <em>(Reception Hall, Seinan Community Center)</em></td>
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<td>ABMF Sub Forum 2 (SF2) Meeting</td>
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<tr>
<td>13:00 – 13:30</td>
<td>Registration</td>
</tr>
<tr>
<td>13:30 – 13:40</td>
<td>Opening Remarks by Mr. Seung-Kwon Lee, SF2 Chair</td>
</tr>
<tr>
<td>13:40 – 14:00</td>
<td>Session 8: Update on the Account Structure Survey by ADB Secretariat and NTT Data, ABMF International Expert - Key findings of market visits in PRC</td>
</tr>
<tr>
<td>14:00 – 14:40</td>
<td>Session 9: How can ISO 20022 link the global markets and support transformation of banking? by Mr. Masayuki Tagai, JP Morgan, ISO 20022 RMG Vice Convener</td>
</tr>
<tr>
<td>14:40 – 15:15</td>
<td>Session 10: Case study: Technologies and standardization to support efficient regulatory reporting and financial transactions - Financial Data Standardisation Project and Eurosystem Collateral Management System in EU by Mr. Michal Piechocki, BR-AG and Francois Laurent, European Central Bank</td>
</tr>
<tr>
<td>15:15 – 15:35</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>15:35 – 16:30</td>
<td>Session 11: Legal Entity Identifier by Mr. Stephan Wolf, CEO, Global LEI Foundation (GLEIF) - framework of Global LEI system and application - Potential for enhancing trust - The LEI in Reporting</td>
</tr>
<tr>
<td>16:30 – 16:40</td>
<td>Wrap-up of Day 2 by ADB Secretariat</td>
</tr>
</tbody>
</table>
Mongolian capital markets

ZORIGTBAT Tseveenjav
Acting Director General,
Financial Policy Department
Ministry of Finance of Mongolia

LKHAGVAZAYA Vasha
Analyst,
Financial Policy Department
Ministry of Finance of Mongolia

June 2018
Contents

• I. Recent developments & macroeconomic indicators

• II. Fiscal / Monetary Policy

• III. Mongolian capital market
Mongolia at a glance

Country profile:
- Location: Between Russia and China
- Population: 3.2 mln
- Territory: 1.6 mln sq. km

Key macro-economic drivers in 2017:
- GDP nominal: MNT 27.2 trillion, USD 11.2 billion
- Real GDP growth: 5.1
- CPI: 6.4 percent
- Total Revenue and Grants: MNT 7.2 trillion
- Total expenditure and net lending: MNT 8.9 trillion
- Fiscal deficit: MNT 1.7 trillion
- Government debt outstanding: MNT 14.3 trillion, USD 7.2 billion
- Trade balance: USD 1.6 billion

Key export commodities:
- Copper
- Coal
- Gold
I. Recent developments & macroeconomic indicators
# Economic update: IMF Program – Implementation on Track

| IMF Executive Board Completes First and Second Reviews 15 Dec 2017 | Trigger For Ongoing Implementation:  
|---|---|
| | • 15 Dec 2017, IMF Executive Board completed first and second reviews of Mongolia’s performance under the EFF programme  
| | • Completion allows draw of SDR 55.912mn (US$ 79.1mn), bringing total disbursements under the arrangement to SDR 83.868mn (US$ 118.6mn)  

| IMF Program Mission 19 Feb 2017 Reached a Staff-Level Agreement with the Government (GoM) and Bank of Mongolia (BoM) | Policy Measures and Strategy:  
|---|---|
| | • Government – stabilize the economy, boost growth prospects, and restore debt sustainability. Significant fiscal adjustments, strengthen fiscal discipline at every stage of the budget process. Diversify the economy and improve its competitiveness  
| | • Bank of Mongolia – maintain prudent monetary policy, strengthen the banking sector and not to engage in quasi-fiscal activities. Revision of a new central bank law in line with international best practice. Banks subject to an independent Asset Quality Review (“AQR”)  
| | • Development Bank of Mongolia (DBM) - operate in an independent and purely commercial manner with adoption of revised DBM law  

| IMF Executive Board 24 May 2017 Approved a 3-year extended arrangement under the Extended Fund Facility (“EFF”) program | Funding Under the EFF Program:  
|---|---|
| | • World Bank – US$600 million concessional financing  
| | • ADB – US$600 million budget support concessional loan and US$300 million concessional project loan. Country Partnership Strategy (2017–2020) is approved with amount of US$1.2 billion  
| | • Japan - US$850 million in budget support for 3 years  
| | • Korea – US$700 million in project financing  
| | • China – RMB 15 billion swap line between the PBOC and BOM extended for another 3 years  

| Other Multilateral / Bilateral Support:  
|---|
| • EBRD – Framework Agreement $500 million concessional financing in process. Pipeline projects under discussion  
| • USA – 2nd Millennium Challenge Compact Grant of $350 million, terms are under negotiation  
| • India - US$1 billion in infrastructure and industry development funding (in May 2015)  
| • Turkey - US$300 million concessional loan is under negotiation  

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Economic update: IMF Program – Implementation on Track
Economic update:
Key Highlights

Overview

• Mongolian economy performed well in 9M2017 driven by high commodity prices, increased investment and construction in mega mining projects and other sectors that are related to the mining sector such as sales, transportation and manufacturing
  • Economic growth reached 6.7% in the 3rd quarter, year to date growth is at 5.8% and output gap is estimated to be positive
  • Following increased commodity prices in the 3rd quarter mining sector grew by 5.2%, while non-mining sector grew by 7.2%

Demand side

• Household consumption, investments and net exports made positive contributions to growth, which are 2.9%, 2.3% and 3.8% respectively
  • Government expenditure shrunk 18.4% y-o-y reducing overall growth by 2.5%
  • Imports grew by 12.5%, while export reached 17.8%
  • Household consumption was boosted by increasing wages, pension and other social supports

Supply side

• Given the cease of government support and discouraged by limited purchasing power of households, construction sector declined by 14.7% y-o-y and reduced overall growth by 0.4%
  • Constructions in the mega mining projects led to increased purchase of machinery, fuel and mechanical parts, which boosted trade sector thus contributed 1.9% for overall growth
  • Manufacturing sector also stimulated growth by 1.3%, mainly due to increased manufacturing of food, construction items and woven products
    • Although made positive contributions for the overall growth, harvest in agricultural sector was particularly limited in 2017

Outlook

• Increased activity and investment in the mining sector is expected to boost other sectors such as trade and net taxes, employment, household income, consumption and thus economic growth.
  • Metal concentration of copper ore at the OT project is expected to improve and create second round effect for both mining and non-mining sectors
  • Since the budget deficit is expected to be financed by the funds of the EFF program, banks will likely lend more to the private sector thus boost economic growth
Economic update:
Key Highlights

FDI overview

- As of October 2017, the net flow of FDI doubled to USD 992mn y-o-y (excluding OT’s investor’s loan repayment)
- Potential FDI inflow in 2017-2018 is expected to be higher than that of the previous 3 years substantially due to OT’s Phase 2 development
- Driven by a substantial pick-up in investments in the mining sector, total amount of investment rose by 32.1% y-o-y and contributed ~9.0% to economic growth in the first 3 quarters of 2017
  - More specifically, gross fixed capital formation grew by 31.0% y-o-y owing to growth in maintenance works and machinery and equipment, while inventories increased by 34.4% y-o-y mainly to due to accumulation of spare parts
  - The upswing situation is expected to remain in 2018. Government investment expenditure is expected to slightly decrease in 2017 from the previous year and will be higher than 10% next year according to the approved budget.
  - With the reduced political uncertainty, growth prospect and restored investors’ confidence, FDI flow trend have lifted upward compared to previous quarters.
Economic update:
General Government Debt Statistics by its instrument

Source: Government of Mongolia
Economic update: Debt sustainability

Prudent Liability Management and Optimization of the Government’s Debt Portfolio

- With the March exchange and the proposed transaction, Mongolia will continue to term-out the nation’s international debt stock.
- At the same time, the GoM is managing and reducing its overall cost of debt opportunistically.
- As a result, GoM will target consequent de-leveraging. GDP growth has kicked in again, and the Government has also issued less debt in the domestic market. Any new debt raised will be used to replace maturing or higher cost debt.

Economic update:
Mineral Resources to Drive Strong Growth Prospects

Importance of Mineral Sector in the Economy

Composition of Key Mineral Exports, 2017(1)

US$ Prices of Mineral Resources have bottomed out

Mineral Resources Production by Volume

Source: Government of Mongolia, 2017 data as at 30 June

(1) For the seven months ended July 31, 2017
II. Fiscal / Monetary Policy
Fiscal Developments: Budget Performance on the Road to Recovery

The Parliament has approved all necessary legislations pertaining to the IMF’s conditions on fiscal policy

Main Principles
• Deficit reduction to balanced budget by 2023
• Half of excess revenue spending through the program period
• Windfall revenue from mining accumulated to Future Heritage Fund (i.e. Sovereign Wealth Fund)
• Public sector wages freeze through 2018

Revenue Measures
• Progressive PIT
• Taxes on deposit interest income
• Increased Social Security contributions rate
• Excise taxes on petroleum, consumer vehicles, tobacco, alcohol
• Tax Reform (revised General Taxation Law, CIT, PIT)
• Simplified tax regime for SMEs
• Fees and penalties indexed to inflation

Structural Reform Measures
• Fiscal Council
• Pay-as-you-go principle for budget discussion in Parliament
• Social Security Reform: gradual increase of retirement age (65 male, 60 female)
• Targeted benefits to the vulnerable (incl. Child Money partially replaced by food stamps)

Source: IMF Fund staff estimates and projections.
Financial Sector Reform: Creating a Sound and Stable Financial System

Upgrade regulatory environment and strengthen bank supervision framework

- Bank of Mongolia Law (to improve the Central Bank’s governance and bring its mandates in line with international standards)
- Banking Law (to promote risk-based supervision and revise the legal environment for banking sector recapitalization activities)
- Deposit insurance law amendment

Dedicated measures to improve the banking sector

- Launch a comprehensive diagnosis of the banking system (Asset Quality Review)
- Bank recapitalization initiative: authorities will first seek full recapitalization of banks by their shareholders without recourse to public funds
- Comprehensive NPL resolution
- Replace quasi fiscal activities with market-driven initiatives (e.g. housing mortgage program)

Key Indicators Improved

Source: Bank of Mongolia
Key Indicators Improved

**IMF first and second reviews of Mongolia’s performance under EFF**
(15 December 2017):
“Performance under the program thus far has been strong. Growth in 2017 is projected to reach 3.3%, considerably better than forecasted at the time of program approval. The combination of strong policy implementation and a supportive external environment has helped the authorities over-perform on all of the quantitative targets under the program. Performance on structural reforms has also been strong, notwithstanding the delays due to the change in government in September. Mongolia’s three-year extended arrangement was approved on May 24, 2017, in an amount equivalent to SDR 314.5mn (US$425mn)...

The government’s Economic Recovery Program, supported by the IMF, aims to stabilize the economy, reduce the fiscal deficit and debt, rebuild foreign exchange reserves, introduce measures to mitigate the boom-bust cycle and promote sustainable and inclusive growth.”

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**IMF Second Review Completed Expectations Surpassed**

**Real GDP Growth**

(1): IMF estimates
Source: Government of Mongolia, 2017 forecasted data

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**Key Indicators Improved**

**Trade Balance**

**FX Reserve**

**Balance of Payment**

Source: IMF Fund staff estimates and projections.

(1): IMF estimates
III. Mongolian capital market
Mongolian capital market:
Recent developments

Key developments in Capital Market:
• In 2017 September, **Financial Markets Strategy through 2025** passed by the Parliament
• In 2017 October, **Mongolian Financial Market development program 2025** approved by Government of Mongolia.

Forward looking developments:
• MoF is planned to be amend the following legislations in order to fully implement the **Strategy** and the **Program**:
  – Securities market law including related securities market regulations;
  – Integrated Insurance law;
  – Banking recapitalization;
• MoF will take following actions to increase the **Market efficiency**:
  – Regional cooperation development;
  – Market participants privatization including MSE;
  – Support to establish the mandatory institutions;
  – Infrastructure development;
  – Test the New technology (blockchain transactions);
  – Develop national standards parallel with International standards and best practices
  – Support private sector bond issuance
In 2017 October, Mongolian Financial Market development program 2025 approved by Government of Mongolia.

In order to implement a comprehensive policy on developing and expanding capital market infrastructure, consistent with international standards on securities payment and settlement systems.

Payment software shall be renewed in accordance with international standards and transferred to T+2/3 mode.

Developing the electronic trade system for enabling foreign and domestic investors’ participation and establish a regulatory environment for creating favorable environment for small and medium entrepreneurs.

Establish a unified/complex system for settlement and clearing organization.
## Market participants:
### Mongolian Securities Settlement Company

### Main Activity:
- Determining the payment due to the securities trading, the settlement service is based on the contractual basis and the securities trading and cash payment orders are sent to the relevant organizations.

### Shareholder:
- Ministry of Finance is 100% shareholder.
- The Government's Resolution 2015 №147 is Mongolia’s Securities Settlement Company is separated from Mongolia’s Securities Settlement and Depository Center LLC.

### Company function:
- Company is the major infrastructure organization that is responsible for protecting and managing the potential risks in the securities settlement system.
- Depending on the circumstances of the capital market and the needs of the investors, it is necessary to expand its operations, so it has a separate organization.

### Main challenge:
- Take concrete measures to increase the company's efficiency;
- Restructure organization /Capacity Building/
- Implement DvP/T+3 according to the international standards
- Improve operational risk management and internal controls.
- Existing systems and interconnected systems in current infrastructure solutions creates difficulties for market participants; /Millennial IT system complication /
- Enhance the information sharing procedures and improve the cooperation of MSE, MSSC and MCSD.
## Market participants:
### Mongolian Central Securities Depository Company

<table>
<thead>
<tr>
<th>Main Activity:</th>
<th>Shareholder:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Securities registration of the issuers and other participants on the basis</td>
<td>• Ministry of Finance is 100% shareholder.</td>
</tr>
<tr>
<td>of a contract to carry out activities to maintain storage and records of the</td>
<td>• The Government's Resolution 2015 №147 is Mongolian Central Securities Depository is separated</td>
</tr>
<tr>
<td>securities are traded through stock market and OTC market;</td>
<td>from Mongolian Securities Settlement and Depository Center LLC.</td>
</tr>
<tr>
<td>• Custodian banking;</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Company function:</th>
<th>Related legal acts:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Securities / stocks, bonds / deposits</td>
<td>• Securities market law</td>
</tr>
<tr>
<td>• Registration of ownership rights certified by securities and transfer of</td>
<td>• Company law</td>
</tr>
<tr>
<td>rights to others</td>
<td>• Law on procurement of goods and services with state and local funds;</td>
</tr>
<tr>
<td>• OTC market and registration rights</td>
<td>• Related enacts and orders approved by Financial Regulatory Committee;</td>
</tr>
<tr>
<td>• Open a central depository account</td>
<td></td>
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<tr>
<td>• Custody operations</td>
<td></td>
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<tr>
<td>• Distribute dividends</td>
<td></td>
</tr>
<tr>
<td>• ISIN number</td>
<td></td>
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</tbody>
</table>
Market participants: Mongolian Stock Exchange

Main Activity:
- The "Mongolian Stock Exchange" LLC is a "legal entity licensed to engage in securities trading" pursuant to Article 4.1.28 of the Securities Markets Law.

Shareholder:
- Ministry of Finance is 100% shareholder.
- The “Mongolian Stock Exchange” LLC was established by the Resolution # 22 of the Government of Mongolia in January 18, 1991 to implement state-owned company’s privatization.

Company function:
- Mongolian Stock Exchange securities trading

Main challenge:
- Privatization of the MSE
- Company loss
- Current infrastructure solutions have been working with manual involvement, no interconnected system that creates difficulties for stock market participants
- Listed companies
Currently in Mongolia’s capital market, many IT systems co-exist without automated interconnections. Similar operations, such as matching for the equities primary market and the secondary market, are handled by separate systems. Many daily operations require data transfer between the different systems. Many of such data transfers are executed manually, hindering the reliability of the overall operations (diagram shown in the appendix).

<table>
<thead>
<tr>
<th>#</th>
<th>System Name</th>
<th>Vendor Name</th>
<th>Equities (MSE Traded)</th>
<th>Government Bond (MSE Traded)</th>
<th>Government Bond (BoM Traded)</th>
<th>Corporate Bond (MSE Traded)</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Primary Market</td>
<td>Secondary Market</td>
<td>Primary Market</td>
<td>Secondary Market</td>
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<tr>
<td>1</td>
<td>Millennium IT (&quot;MIT System&quot;)</td>
<td>Millennium/London Stock Exchange (Sri Lanka/UK)</td>
<td>✓ Depository</td>
<td>✓ Matching</td>
<td>✓ Only used to accept orders (matching is done by MOF)</td>
<td>✓ Matching</td>
</tr>
<tr>
<td></td>
<td>Trading System</td>
<td>✓ Matching</td>
<td>✓ Clearing</td>
<td>✓ Depository</td>
<td>✓ Depository</td>
<td>✓ Clearing</td>
</tr>
<tr>
<td></td>
<td>Surveillance System</td>
<td>✓ Securities settlement</td>
<td>✓ Depository</td>
<td>✓ Market Surveillance</td>
<td></td>
<td>✓ Depository</td>
</tr>
<tr>
<td></td>
<td>Depository System (including clearing module)</td>
<td>✓ Depository</td>
<td>✓ Depository</td>
<td>✓ Market Surveillance</td>
<td></td>
<td>✓ Depository</td>
</tr>
<tr>
<td>2</td>
<td>E-Clearing House System (&quot;e-clearing&quot;)</td>
<td>Local Vendor (Mongolia)</td>
<td>✓ Clearing</td>
<td>✓ Money Settlement</td>
<td>✓ Process OTC transaction</td>
<td>✓ Depository</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>✓ Money Settlement</td>
<td>✓ Process OTC transaction</td>
<td>✓ Net Settlement between 4 settlement banks</td>
<td>✓ Depository</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>✓ Security settlement</td>
<td>✓ Net Settlement between 4 settlement banks</td>
<td>✓ Money Settlement</td>
<td>✓ Depository</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>✓ Money Settlement</td>
<td>✓ Money Settlement</td>
<td>✓ Money Settlement</td>
<td>✓ Money Settlement</td>
</tr>
<tr>
<td>3</td>
<td>MSE IPO System</td>
<td>MSE (Mongolia)</td>
<td>✓ Matching</td>
<td></td>
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<tr>
<td>4</td>
<td>BOM Interbank ETS System</td>
<td>BOM (Mongolia)</td>
<td>✓ Matching</td>
<td></td>
<td>✓ Only used to record OTC negotiation result</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>BOM RTGS System&amp; ISO8583 (&quot;RTGS System&quot;)</td>
<td>BOM (Mongolia)</td>
<td>✓ Clearing</td>
<td>✓ Money Settlement</td>
<td>✓ Clearing</td>
<td>✓ Money Settlement</td>
</tr>
</tbody>
</table>

Market Infrastructure: Information Systems
Market Infrastructure: Debt management strategy for 2016-2018

Government of Mongolia shall pursue the following policy objectives under the medium-term government debt management strategy for 2016-2018

• Level off burden of the government debt services on budget in long-run, reduce debt service ratio to structural revenue in phases, and lengthen average maturity of government debt portfolio;

• Improve Mongolia’s Sovereign credit rating and its prospects, strengthen relationships with investors, create favorable investment environment, reduce government external borrowing costs, and establish government securities yield curve; and

• Establish optimal government debt composition by planning and implementing comprehensive debt coordination actions in the medium-term
Market Infrastructure: Debt management strategy for 2016-2018

• Government medium term /2016-2018/ debt management strategy was approved on 22\textsuperscript{nd} of May, 2016 by the Parliament.

• According to the Debt management strategy, following \textit{objectives to be taken} in medium term (almost achieved all measures):
  \begin{itemize}
    \item To develop the Medium Term Public Investment Program (achieved)
    \item To take measures to improve Sovereign credit rating (achieved)
    \item To improve foreign investor relations and allow foreign and domestic investors to participate in the domestic securities market (achieved)
    \item To improve liquidities of domestic securities (achieved)
    \item To implement specific debt management operations (achieved)
    \item To improve the infrastructure of centralized clearing house system in order to set the domestic securities benchmarks (in process)
  \end{itemize}
MoF will take following actions on debt management with the support of WB TA

• Update the MTDS 2019-2021 based on the current economic situation

• Develop secondary domestic debt securities market

• Lower short-term debt burden & lower the substantial debt repayment risk & lower interest cost

• Develop investor relations and investors base

• Strengthen market efficiency;

• Active liability management;

• Support Supranational local currency bond issuance in the international debt capital market (ADB and WB’s IFC)
THANK YOU!

ASEAN + 3 members & ADB

For accepting Mongolia to join ABMF
Session 2: Update of ASEAN+3 Multi-Currency Bond Issuance Framework

Satoru (Tomo) Yamadera
Principal Financial Sector Specialist
ERCD, ADB
Challenges to create a bond market in emerging markets: lessons from Cambodia

✓ Development of bond market needs to be in parallel with the development of banking.
  • To improve financial stability, both banking and bond finance need to be developed. Thus, regulatory conditions for banking and bond need to be comparable.

✓ Development of bond market relies on development of institutional investors.
  • Banks can be issuers and investors, but banks may also be competitors against bond market.

✓ Development of bond market needs to be accompanied with the development of money market and FX market
  • Need for hedging tools for both domestic and foreign investors

✓ Rules for bond market needs to be differentiated from equities.

✓ Lack of custodian
## Difference between equities and bonds

<table>
<thead>
<tr>
<th></th>
<th>Equities</th>
<th>Bonds</th>
<th>Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Issuers (borrowers)</strong></td>
<td>• good companies, but may not be large.</td>
<td>• Basically large companies and large projects</td>
<td>• Small to large companies and projects</td>
</tr>
<tr>
<td></td>
<td>• Risk sharing with various investors.</td>
<td>• Targeted to large investors</td>
<td>• Short-term working capital or long-term finance</td>
</tr>
<tr>
<td></td>
<td>• Discipline through market</td>
<td>• Stable funding to meet long-term investment</td>
<td>• Negotiation-based and company-specific monitoring</td>
</tr>
<tr>
<td></td>
<td>• Cost can be high.</td>
<td>• Improve Asset Liability Management (ALM)</td>
<td>• Float or fixed rate</td>
</tr>
<tr>
<td></td>
<td>• Nonfixed term liability</td>
<td>• Fixed funding cost</td>
<td>• Easier and quicker access to finance</td>
</tr>
<tr>
<td><strong>Investors</strong></td>
<td>• Retail and institutional investors</td>
<td>• Mostly institutional investors</td>
<td>• Normally one borrower, one bank.</td>
</tr>
<tr>
<td></td>
<td>• Capital gain</td>
<td>• Stable long-term income</td>
<td>• Risk-based return</td>
</tr>
<tr>
<td></td>
<td>• High risk high return</td>
<td>• Low risk low return or medium risk medium return</td>
<td>• Monitor information specific to a borrower.</td>
</tr>
<tr>
<td></td>
<td>• Standardized products: one issuer, one equity.</td>
<td>• Multiple but relatively standardized products: one issuer, multiple issues.</td>
<td>• Not standardized.</td>
</tr>
</tbody>
</table>

- **Equities**
  - Issuers (borrowers)
    - Good companies, but may not be large.
    - Risk sharing with various investors.
    - Discipline through market.
    - Cost can be high.
    - Nonfixed term liability.
  - Investors
    - Retail and institutional investors.
    - Capital gain.
    - High risk high return.
    - Standardized products: one issuer, one equity.

- **Bonds**
  - Issuers (borrowers)
    - Basically large companies and large projects.
  - Investors
    - Mostly institutional investors.
    - Stable long-term income.
    - Low risk low return or medium risk medium return.
    - Multiple but relatively standardized products: one issuer, multiple issues.

- **Bank**
  - Small to large companies and projects.
  - Short-term working capital or long-term finance.
  - Negotiation-based and company-specific monitoring.
  - Float or fixed rate.
  - Easier and quicker access to finance.
Dollarization in CLMV: additional challenge

Impossible trinity and de-dollarization

- It is impossible to have all three of the following at the same time.
  - Fixed (stable) FX rate
  - Free movement of capital (absence of capital control)
  - Independent monetary policy

- It is necessary to have good preparation to accept some manageable instability in FX, or capital flow, or monetary policy, not to cause unnecessary market disruption.
Custodian: the chain of the cross-border settlement network

- To be a part of the custodian network, acting as a sub-custodian, a bank must comply with local regulations, but should also incorporate global best practices for investors protection and AML/KYC, in order to meet the requirements and expectations of global custodians.

- On behalf of investors, global custodians will check and ensure suitability of potential local custodians.
Thank you.

syamadera@adb.org
Update on
ASEAN+3 Bond Market Guides

Shigehito Inukai
Matthias Schmidt
ADB Consultants

28th ABMF Meeting, Seinan Gakuin University, Fukuoka City, Japan
SF1 Session, 19 June 2018
Points to Cover

① Status of ASEAN+3 Bond Market Guides
② Published May 2018: Republic of Korea Bond Market Guide
③ From Market Visit Summary to ADB Flagship Publication
④ Evolution of ASEAN+3 Bond Market Guides
⑤ Next Steps for Bond Market Guides
⑥ Feedback & Thank You
Status of ASEAN+3 Bond Market Guides (as of 11 June 2018)

12 BMGs published as PDF versions

Members: ADB, ABMF SFI

[Note: Flags courtesy of Wikipedia]
Published May 2018: Republic of Korea Bond Market Guide

144 pages


Also available on www.asianbondsonline.adb.org
From Market Visit Summary to ADB Flagship Publication

- Created to summarise ABMF market visit findings
- Intended to bridge information gap identified from investor feedback
- Contents utilised to analyse market features
- Information became baseline for development of AMBIF concept
- 1,432 downloads from AsianBondsOnline alone in 2016/2017
- Development of ABMF BMG template for easier updating
- Became serial publication in January 2018
- Elevated to ADB flagship publication in 2018
- Inclusion of further topics planned: arbitration/dispute resolution, risk elements and due diligence/comfort letter practices, etc.
Evolution of ASEAN+3 Bond Market Guides

- **2012**: First of its Kind
  - **11 Markets**

- **2016**: Individual Market Publication Started

- **2017**: ABMF BMG Word Template Developed

- **2018**: ADB Flagship Series Publication Established
  - **14 Markets**
Next Steps for ASEAN+ Bond Market Guides

- Viet Nam being finalised; PR China by end of 2018 latest
- Creation of Comparative Analysis across body of 14 BMGs
  - To review and revisit professional markets vs. Phase 2 Report
  - To create insight for members and experts
  - To derive policy recommendations
- Update of selected BMGs (on demand or need basis)
  - Major market developments as drivers
  - Would include retrofitting of changes to format, style
- Further synchronisation with AMBIF Implementation Guidelines
- Possible integration with AsianBondsOnline
Feedback & Thank You

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

Thank you in advance!

Shigehito Inukai
shige.inukai@me.com

Hiro Suzuki
hiro.suzuki@cmaa-group.org

Matthias Schmidt
macschmidt@me.com
Introduction to the Capital Markets Association for Asia (CMAA)

The Capital Market Association for Asia (CMAA) was established in March 2018 as a general incorporated association, and took over naming, purpose and function of the organization established in 2007 in Japan as a voluntary framework.

19 June 2018
Shuji Yanase, Chairperson, CMAA
Shigehito Inukai, Executive President & Representative Director, CMAA

❖ Page 2, 4, 7 and 8 will be explained in the presentation.
The Vision of AIR-PSM
An Asian Intra-Regional Professional Securities Market (AIR-PSM)

Homogeneous (Professional)

Asian Intra-Regional Professional Securities Market (AIR-PSM)

Heterogeneous (Retail)

Domestic Bond Markets in Asian Region
Local

CMAA will promote the vision of AIR-PSM as well as AMBIF

• AIR-PSM shares Common Principles for Professional Market with the International Market/previously referred to as Eurobond market.
• AIR-PSM is aiming to disseminate its intra-regional professional bond market rules and practices that are basically consistent with the international market to the domestic professional bond markets of each country.

• CMAA has the intention to create market practices and issue processes that will be harmonized and standardized within the professional markets in the region, including AMBIF.
• Issuers will be able to tap all markets ultimately with harmonized market practices/documents for submission.
• Professional investors can ultimately invest in all intra-regional professional markets without any concerns about needing to know their detailed regulations closely.
An Asian Intra-Regional Professional Securities Market (AIR-PSM)

There had been three camps in discussions related to the development of Asian bond markets.

1. One prioritizes the further development of domestic markets, or, alternatively, believes that development of domestic markets is sufficient.

2. The second camp seeks to promote an offshore cross-border (inter-regional) market in the region. (i.e., Asian currency denominated Eurobonds – for instance, an offshore RMB bond market)

3. The third camp seeks to promote an Asian Intra-Regional Professional Securities Market (AIR-PSM). This aims to further develop public-offering domestic markets and at the same time to promote an intra-regional professional market in each jurisdiction with a focus on a region-wide participation of professionals. (AMBIF market can be considered a part of AIR-PSM)

AIR-PSM is intended ultimately to allow regional issuers to issue local currency bonds in any participating Asian economy on the basis of an expedited regulatory process and by making use of standardised market practices and disclosure documentation in English.

AIR-PSM is a conduit towards the creation of a region-wide open professional bond market zone. AIR-PSM will work as a framework to connect the regional domestic professional bond markets. AIR-PSM will make it possible to minimize institutional differences among countries/markets.
It aims at:

1. Promoting the value-added discussion on Asian financial markets, related laws and regulations systems, etc. among the parties concerned in Asia;
2. Contributing to architect and develop the laws, regulations and systems in Asian financial and capital markets as well as supporting to create the market systems, infrastructure of the Asian Intra-Regional Professional Securities Markets (AIR-PSM); and thus
3. Contributing to facilitate financial & capital markets transactions and corporate finance in Asia among market participants as well as contributing to healthy development of intra-regional markets based on fair pricing functioning.

CMAA has set the objective to take leadership on standardizing documentation and creating market practices for a bond market for professional investors in the Asian region.

- Specifically, CMAA will try and make a model form of standard documents (including every kind of standard contracts and registration format) in cooperation with self-regulatory organizations and market practitioners in the region.
- CMAA will also try to set up and maintain “Standard Asian Market Practices” as well as “self-regulations” taking into account the consistency with global standards and real domestic conditions of the respective Asian countries.
Business of the CMAA

Create, cultivate and develop financial & capital markets in the region and every kind of system infrastructure, including cross-disciplinary and integrated financial & capital markets and regulatory systems as well as contribute to facilitate financial & capital market transactions and corporate finance transactions among market participants in Asia, including corporates.

With regard to the financial & capital markets related regulations, judicial affairs and related market systems and infrastructure within Asia, CMAA conducts the following:

1) Comprehensive research including cross-regional research and analysis, as well as support for cross-disciplinary and comprehensive discussions by market participants;

2) Comment (or advice if necessary) on the cross-regional market practices to members;

3) Publicity activities and dissemination of information to member;

4) Consulting business;

5) Contracted research and analysis business;

6) Endorsement for market participants including governmental regulatory authorities of each Asian country-market and fostering human resources in relation to Asian intra-regional financial & capital markets; and

7) Business related to the above-mentioned business.
Supplementary matters on CMAA business activities

• CMAA, as a specialist group of substantial practical experience in financial & capital markets, sets out to become the conducive organization focusing on Asia for building financial and capital market infrastructure of sustainable, fair, effective and efficient market practices for professional investors and other participants. CMAA has an intention to maintain friendly relationships with other bodies in domestic and global capital markets and to make constant reference to global market standards and practices.

• Hence, making recommendations on particular issues unique to each market in the region is outside of CMAA’s purview. (CMAA will be having a mutual complementally relationship with the ASEAN+3 Bond Market Forum (ABMF)/ABMF Secretariat Team who releases recommendations and suggestions, etc. as part of its operation to government agencies and regulatory authorities in each country and economy in the region. Further, CMAA will maintain close cooperation with ABMF/ABMF Secretariat Team for the foreseeable future although it is an organization independent from ABMF.)

• CMAA was established so as to contribute to developing Asian financial & capital markets for the future.
In the future, CMAA aims to function as SRO or nodal point that connects the securities-related self-regulatory organizations in Asian countries.

As of now, the self-regulatory organizations in each Asia country cover their domestic securities markets only simply because they are founded under domestic laws which do not assume regulating cross border financial & capital transactions. Therefore, no SRO covering cross-Asian intra-regional domestic markets exists.

It is quite common in the European offshore market (previously referred to as Eurobond market) to used common law based ICMA standard documents in new bond offerings.

In Asia, however, it may be difficult to use ICMA standard documents for the offering of Asian intra-regional domestic professional bond markets due to constraints arising from local currency domestic markets. Hence, market standard documentation reflecting the appropriate domestic condition of each respective Asian country is needed.
CMAA initial personnel appointments

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Honorary Chairperson</td>
<td>Nobuyuki Idei (Quantum Leaps Corporation representative director /former Sony Chairperson)</td>
</tr>
<tr>
<td>Chairperson (Director)</td>
<td>Shuji Yanase (Lawyer, Yanase law firm/Former senior partner of Nagashima, Ohno, Tsunematsu law firm)</td>
</tr>
<tr>
<td>Executive President (Representative Director)</td>
<td>Shigehito Inukai (former professor at Waseda University, retired at the end of March 2018)</td>
</tr>
<tr>
<td>Managing Director &amp; Executive Officer (Secretary General)</td>
<td>Hirohiko Suzuki (former adjunct researcher of Waseda University, retired at the end of March 2018 / previously SMBC-NIKKO securities, Barclays, Morgan Stanley, Goldman Sachs and Nikko Securities)</td>
</tr>
<tr>
<td>Auditor Secretary</td>
<td>Eiko Hakoda (Lawyer, Mori Hamada &amp; Matsumoto law firm) Masaki Konishi (Lawyer, Nagashima, Ohno, Tsunematsu Law Office)</td>
</tr>
</tbody>
</table>

CMAA is expected to start full scale operation from September 2018. Three directors and two internal auditors were appointed when it was founded.
Membership

1. **Constituent members**: Private individuals, corporations and organizations who agree with objectives of CMAA, applied to and joined CMAA as a member under the law concerning general incorporated associations and general incorporated foundations. (Executive officers as regular members are limited to three individuals for the time being.)

2. **General members**: Those private individuals, corporations and organizations other than regular members. CMAA assumes these would be securities companies, commercial banks, institutional investors and issuers in the region.

3. **Special members**: Those private individuals, corporations and organizations who CMAA invites to membership without annual member fee. CMAA assumes this to be organizations such as SROs in developing markets, government agencies (as observer), academic experts and business experts in the financial & capital markets.

4. **Associate members**: Associate membership is for those who are engaged in business related to financial & capital markets, including infrastructures but other than issuers, investors and underwriters. CMAA assumes this to be industry organizations, exchanges, clearing and settlement organizations, self-regulatory bodies, rating agencies, research institutes, law firms, auditing firms, consultant firms, market infrastructure related firms, etc.
Enquiries and Access to CMAA

Address: 3-21-1229, Kanda Nishiki-cho, Chiyoda-ku, Tokyo Japan
Enquiry: info@cmaa-group.org
Telephone: +81-80-3360-7551

CMAA has the intention to fulfill the role of the office of ADRB (AMBIF Documentation Recommendation Board) which helped formulate the Single Submission Form in 2015, replacing Waseda University.

[See: https://sites.google.com/site/profinukaiswebsite/adrb-ambif-documentation-recommendation-board]
AN INTRODUCTION TO THE
ASEAN3 GOVERNMENT BOND INDEX (A3GBI)

FUKUOKA, JAPAN
19 JUNE 2018
## ASEAN3 Government Bond Index

### BPAM and the ASEAN Capital Market Initiative

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>Asian Bond Markets Initiative (ABMI) by the ASEAN+3 Finance Ministers</td>
</tr>
<tr>
<td>2002-2008</td>
<td>ASEAN Capital Markets Forum (ACMF) - Securities Regulators of Malaysia, Thailand and Singapore establish the ASEAN CIS Framework for cross-border offering of collective investment schemes (CIS)</td>
</tr>
<tr>
<td>2010</td>
<td>BPAM's 1&lt;sup&gt;st&lt;/sup&gt; ASEAN Bond Pricing Providers Sharing Session in KL</td>
</tr>
<tr>
<td>2011</td>
<td>BPAM representatives nominated as Malaysian National Members to participate in the ASEAN+3 Bond Market Forum (ABMF)</td>
</tr>
<tr>
<td>2012</td>
<td>ABMF - Creation of the Multi-Currency Bond Issuance Framework (AMBI) and maiden issue (Mizuho)</td>
</tr>
<tr>
<td>2013</td>
<td>The launch of the ASEAN3 Government Bond Index (A3GBI)</td>
</tr>
<tr>
<td>2014</td>
<td>A Tri-partite MOU for Content Exchange between BPAM, IBPA &amp; ThaiBMA</td>
</tr>
<tr>
<td>2015</td>
<td>BPAM - Philippine Dealing Exchange Corp (PDEx) – MOU Content Exchange</td>
</tr>
<tr>
<td>2016</td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
</tr>
</tbody>
</table>
Peers among neighbours

**BPA**

Incorporated in 2004 as a market neutral entity to provide fair valuation for MYR bonds

Appointed by SC as Malaysia's 1st BPA in 2006

BPAM values about 3000 MYR fixed income instruments daily

Mutual Funds, ETFs & Private Retirement Scheme (PRS) are mandatory to use BPA prices for portfolio valuation

**IBPA**

Incorporated in 2008

Appointed by SEC as the 1st BPA in Indonesia in 2009

Values and determines the fair market price of IDR debt securities on daily basis

Prices are used by most of the financial institutions in Indonesia with mandatory mandate

**ThaiBMA**

A self-regulatory organization (SRO) for a fair and efficient operation of the bond market since 2005

Previously known as The Bond Dealers Club (BDC)

ThaiBMA acts as Thailand’s:

Bond Information Centre, Bond Pricing Agency, Market Convention & Education, Market Monitoring & Surveillance
What we have in common – BPAM, IBPA & ThaiBMA

<table>
<thead>
<tr>
<th>Regulator Oversight</th>
<th>Independent and Transparent Valuation</th>
<th>Facilitate Price Discovery in Primary and Secondary Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expert On Local Market</td>
<td>Key Role in Regulatory Data (risk, capital, accounting standards)</td>
<td>Public, Academic and Market Education &amp; Development</td>
</tr>
<tr>
<td>Data Aggregator for LCY Bonds</td>
<td>Mandatory Mandates for Portfolio Valuation ie. mutual funds</td>
<td>Critical Market Infrastructure</td>
</tr>
</tbody>
</table>
Introducing ASEAN3 Government Bond Index (A3GBI)

- In view of the impressive rate of development in the regional bond market, setting up an investable and replicable index which consists of the largest market-makers and liquid bonds from government segment will provide a greater visibility of the ASEAN market behavior.

- The Index is a product of three bond pricing providers in the regional market:
  - Bond Pricing Agency Malaysia (BPAM)
  - Indonesian Bond Pricing Agency (IBPA)
  - The Thai Bond Market Association (Thai BMA)

- Sub-indices are available in respective local currencies

- Index construction is rules-based, where the hallmark of a rules-based index is transparency and broadly speaking, predictability.
### Why A3GBI is completely different

<table>
<thead>
<tr>
<th>Index Characteristics</th>
<th>INDEX A</th>
<th>INDEX B</th>
<th>INDEX C</th>
<th>ASEAN3 Government Bond Index (A3GBI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Index Summary</strong></td>
<td>Tracks 7 Asian local currency - government bonds</td>
<td>Tracks 11 Asian local currency - government and corporate bonds</td>
<td>Tracks 10 local currency - government and corporate bonds</td>
<td>Tracks 3 local currency – Top 5 On-The-Run government bonds</td>
</tr>
<tr>
<td><strong>Country Exposure</strong></td>
<td>Korea, Indonesia, Thailand, Malaysia, Singapore, Philippines, Hong Kong</td>
<td>China, Hong Kong, India, Indonesia, Malaysia, Philippines, Singapore, South Korea, Taiwan and Thailand</td>
<td>China, Hong Kong, India, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan &amp; Thailand</td>
<td>Indonesia, Malaysia and Thailand</td>
</tr>
<tr>
<td><strong>Price Source</strong></td>
<td>Trader pricing</td>
<td>Proprietary methodology</td>
<td>Information vendor</td>
<td>Independent Bond Pricing Providers - IBPA, ThaiBMA and BPAM</td>
</tr>
<tr>
<td><strong>Market Capitalization</strong></td>
<td>Market capitalization</td>
<td>Market capitalization</td>
<td>Market capitalization</td>
<td>Market capitalization Country weight: Equal ; Individual bond weight within country</td>
</tr>
</tbody>
</table>
ASEAN3 Government Bond Index

A3GBI daily process flow

ThaiBMA (THB) → IBPA (IDR) → BPAM (MYR) → End of Day Government Bond Prices & Reference Data

Index Calculation

ASEAN3 Government Bond Index (A3GBI)

ThaiBMA (THB) → IBPA (IDR) → BPAM (MYR) → Each member displays, distributes and promotes the index within their respective markets

All members contribute their EOD Government bond prices & reference data

BPAM acts as the data aggregator and index calculator and disseminates the output back to all members

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### ASEAN3 Government Bond Index

**A3GBI construction is rules-based**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country Exposure</strong></td>
<td>Malaysia, Indonesia, Thailand</td>
</tr>
<tr>
<td><strong>Price Source</strong></td>
<td>Bond Pricing Agency Malaysia (BPAM), Indonesia Bond Pricing Agency (IBPA),</td>
</tr>
<tr>
<td></td>
<td>and The Thai Bond Market Association (Thai BMA)</td>
</tr>
<tr>
<td><strong>Currency</strong></td>
<td>MYR, IDR and THB</td>
</tr>
<tr>
<td><strong>Inclusion</strong></td>
<td>Top 5 on-the-run government bonds in participating countries based on</td>
</tr>
<tr>
<td></td>
<td>outstanding amount at rebalancing day</td>
</tr>
<tr>
<td><strong>Bond Type</strong></td>
<td>Fixed rate, bullet and zero coupon bonds</td>
</tr>
<tr>
<td><strong>Minimum term</strong></td>
<td>365 days on rebalancing day</td>
</tr>
<tr>
<td><strong>Weighting</strong></td>
<td>Country weight: Equal weighting Individual bond weight within country:</td>
</tr>
<tr>
<td></td>
<td>Market capitalisation</td>
</tr>
<tr>
<td><strong>Calculation Frequency</strong></td>
<td>Daily basis (weekday)</td>
</tr>
<tr>
<td><strong>Rebalancing</strong></td>
<td>Month end</td>
</tr>
<tr>
<td><strong>Reinvestment of Cash Flow</strong></td>
<td>Reinvest into the index</td>
</tr>
<tr>
<td><strong>Timing</strong></td>
<td>11.00 am (GMT+8) using previous day prices</td>
</tr>
<tr>
<td><strong>Sub-index</strong></td>
<td>Country specific sub-indices</td>
</tr>
<tr>
<td><strong>Base Date</strong></td>
<td>2 January 2017</td>
</tr>
</tbody>
</table>
ASEAN3 Government Bond Index

A3GBI aims to be significant and applicable

**Data from Reputable Sources**
- Direct evaluated bond prices feed from ASEAN’s accredited bond pricing providers (BPP)
- Takes into account local market conventions and behavior
- BPPs are experts of the fixed income market in the respective countries

**Using On-the-run Government Bonds**
- Eligible constituents must be all on-the-run government securities, therefore covers investable bond universe
- Index captures liquidity as on-the-run bonds are highly tradable
- Allow investors focusing on the liquid government securities in the region to have their own index segment for performance benchmarking purposes

**Evaluated Prices as Input Data**
- Underlying data goes through a sound methodology, tried and tested by local market participants; regulators, buy side and sell side alike.
- Evaluated prices are fairly valued, not just composite/average/contributed prices
- Data is verifiable by BPPs

**Established International Standard**
- The index construction rules and calculation methodology broadly follow the EFFAS Standardised Rules
  (EFFAS - European Federation of Financial Analysts Societies)
The purpose of the Index is to measure the average performance that holders of the relevant type of bonds and segments experience over time. This is achieved by creating a representative portfolio of bonds, and measuring their performance.

At constituent level, bonds to be selected into the index are done via pre-defined rules.
ASEAN3 Government Bond Index

Methodology overview: Specify construction rules, review period and then calculate

Based on the pre-defined rules, the index constituents are reviewed monthly. At this review, bonds may be added or removed accordingly, and finally the index will be calculated.

<table>
<thead>
<tr>
<th>CONSTRUCTION RULES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issuance characteristics</td>
</tr>
<tr>
<td>Bond type</td>
</tr>
<tr>
<td>Maturity level</td>
</tr>
<tr>
<td>Weight scheme rule</td>
</tr>
</tbody>
</table>

INDEX AND SUB-INDICES – LEVELS AND CONSTITUENTS

Bonds

Graph showing index levels from Jan 17 to Jan 18.
ASEAN3 Government Bond Index

A3GBI tracks daily movement to observe the direction of the market

<table>
<thead>
<tr>
<th>Date</th>
<th>Value (t)</th>
<th>Value (t-1)</th>
<th>Day on day change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 18</td>
<td>109.774</td>
<td>109.897</td>
<td>-0.123 ▼</td>
<td>-0.11% ▼</td>
</tr>
</tbody>
</table>

ASEAN3 Government Bond Index
ASEAN3 Government Rupiah Bond Index
ASEAN3 Government Ringgit Bond Index
ASEAN3 Government Baht Bond Index
ASEAN3 Government Bond Index

A3GBI and sub-indices serves as a benchmark to measure performance

<table>
<thead>
<tr>
<th></th>
<th>Simple Average Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>30/03/18</td>
<td>109.774</td>
</tr>
<tr>
<td>1M</td>
<td>0.7%</td>
</tr>
<tr>
<td>3M</td>
<td>0.7%</td>
</tr>
<tr>
<td>6M</td>
<td>1.9%</td>
</tr>
<tr>
<td>12M</td>
<td>6.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ASEAN3 Government Bond Index</th>
<th>109.774</th>
<th>0.7%</th>
<th>0.7%</th>
<th>1.9%</th>
<th>6.4%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASEAN3 Government Rupiah Bond Index</td>
<td>117.993</td>
<td>1.0%</td>
<td>0.7%</td>
<td>3.3%</td>
<td>10.8%</td>
</tr>
<tr>
<td>ASEAN3 Government Ringgit Bond Index</td>
<td>106.859</td>
<td>0.7%</td>
<td>1.1%</td>
<td>1.8%</td>
<td>0.7%</td>
</tr>
<tr>
<td>ASEAN3 Government Baht Bond Index</td>
<td>104.815</td>
<td>0.3%</td>
<td>0.4%</td>
<td>0.7%</td>
<td>3.5%</td>
</tr>
</tbody>
</table>
ASEAN3 Government Bond Index

Over time, A3GBI reveals peak and trough to illustrate significance of market events

- **March 2017:**
  1. JCR revised Indonesian's credit outlook to positive left Indo govvies to rally.

- **April 2017:**
  Flight to safety heightens following the US air strike news.

- **July 2017:**
  Global sell-off amid hawkish ECB stance.

- **September 2017:**
  Demand for safe haven assets rising amid heightened geopolitical risks triggered by North Korea.

- **October 2017:**
  Pressure builds as US dollar strengthened and UST yields spiked up.

- **September 2017:**
  Markets face headwinds on stronger US economic data.

- **January 2018:**
  Market resurge on weaker than expected US economic data.
ASEAN3 Government Bond Index

A3GBI data may be used as comparison with other data sets

<table>
<thead>
<tr>
<th>Duration</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1M</td>
<td>0.68</td>
</tr>
<tr>
<td>3M</td>
<td>-0.72</td>
</tr>
<tr>
<td>6M</td>
<td>0.83</td>
</tr>
<tr>
<td>12M</td>
<td>0.90</td>
</tr>
</tbody>
</table>

Correlation as at 30th March 2018

UST Source: https://www.treasury.gov/
A3GBI data may be useful for formulating trading strategies

- **Index price > SMA = Buy**
  The direction of index is considered bullish

- **Index price < SMA = Sell**
  The direction of index is considered bearish
ASEAN3 Government Bond Index

A3GBI constituents may allow for portfolio emulation for index funds or ETF

<table>
<thead>
<tr>
<th>Data as at 30th March 2018</th>
<th>ASEAN3 Government Rupiah Bond Index</th>
<th>ASEAN3 Government Ringgit Bond Index</th>
<th>ASEAN3 Government Baht Bond Index</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Portfolio &amp; Weight</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obligasi Negara Republik Indonesia Seri FR0070</td>
<td>38.8%</td>
<td>MGS 4/2017 3.899% 16.11.2027</td>
<td>LB21DA 25.9%</td>
</tr>
<tr>
<td>Obligasi Negara Republik Indonesia Seri FR0064</td>
<td>17.5%</td>
<td>MGS 4/2013 3.844% 15.04.2033</td>
<td>LB296A 21.4%</td>
</tr>
<tr>
<td>Obligasi Negara Republik Indonesia Seri FR0065</td>
<td>15.3%</td>
<td>MGS 3/2017 4.762% 07.04.2037</td>
<td>LB196A 18.7%</td>
</tr>
<tr>
<td>Obligasi Negara Republik Indonesia Seri FR0063</td>
<td>14.8%</td>
<td>MGS 2/2017 4.059% 30.09.2024</td>
<td>LB25DA 18.0%</td>
</tr>
<tr>
<td>Obligasi Negara Republik Indonesia Seri FR0075</td>
<td>13.5%</td>
<td>GII MURABAHAH 1/2017 4.258% 26.07.2027</td>
<td>LB226A 16.0%</td>
</tr>
<tr>
<td><strong>Market Cap</strong></td>
<td>IDR 375,449 billion (USD 27.05 billion)</td>
<td>MYR 63.53 billion (USD 16.3 billion)</td>
<td>THB 1,281.73 billion (USD 40.9 billion)</td>
</tr>
<tr>
<td><strong>Average Coupon</strong></td>
<td>7.187%</td>
<td>4.157%</td>
<td>3.706%</td>
</tr>
<tr>
<td><strong>Average YTM</strong></td>
<td>6.574%</td>
<td>4.173%</td>
<td>1.886%</td>
</tr>
<tr>
<td><strong>Average Duration</strong></td>
<td>6.512</td>
<td>8.914</td>
<td>4.834</td>
</tr>
<tr>
<td><strong>Average Convexity</strong></td>
<td>64.714</td>
<td>107.190</td>
<td>36.375</td>
</tr>
</tbody>
</table>
ASEAN3 Government Bond Index

A3GBI is now available in IBPA, ThaiBMA and BPAM’s platform

ThaiBMA: http://www.thaibma.or.th/EN/Market/Index/A3GBI.aspx
What’s Next: Deeper Data

Potential for greater sharing & product expansion

- Invite more member countries to participate in the ASEAN index
- More joint product development - ASEAN Corporate Bond Index - ASEAN Sukuk Index
- Build business linkages through cross selling and referral
- Ongoing events, market promotion and knowledge sharing among members

Malaysia (BPAM)
Philippines (PDEx)
Thailand (ThaiBMA)
Vietnam (VBMA)
Indonesia (IBPA)
ASEAN BOND ALLIANCE (ABA)

An identity that is representative of the ASEAN Bond Pricing Providers

A Progressive Expansion Of the ASEAN Network

- Sharing and dissemination of bond market data as an Alliance
- Convergence of mutual best practices and standards
- Support and educate public and market on the nature of bond pricing providers
- Cross border trading/issuance with effective pricing discovery/trading reference

ASEAN BOND ALLIANCE (ABA)

Vietnam VBMA
Philippines PDEX
Malaysia BPAM
Thailand ThaiBMA
Indonesia IBPA
Singapore
Brunei
Laos
Cambodia
Myanmar

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Email: enquiries@bpam.com.my
ASEAN+3 BOND MARKET FORUM

Developments in Emerging East Asia Bond Markets
AsianBondsOnline (ABO) Website Updates

June 2018
Donghyun Park, Shu Tian
Asian Development Bank (ADB)
https://asianbondsonline.adb.org

The most systematic and comprehensive source of information for emerging East Asian bond markets
Overview

- First quarter economic growth slowed in most advanced economies.

- However, growth outlook remains positive, with central banks upgrading their economic forecasts.

- In particular, the economic outlook for the US is quite strong and the US Federal Reserve continues its monetary policy normalization.

- This has lead to a rise in yields in emerging East Asia.
Government Bond Yields Rise in Most Emerging East Asian Markets

Changes in LCY Government Bond Yields

Note. Data reflect changes between 1 March and 31 May 2018.
Source: AsianBondsOnline calculations based on Bloomberg LP data.

asianbondsonline.adb.org
Currency Weakens, Stock Market Retreats

Changes in FX Rates (%)

<table>
<thead>
<tr>
<th>Country</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thailand</td>
<td>(2.00)</td>
</tr>
<tr>
<td>Malaysia</td>
<td>(1.50)</td>
</tr>
<tr>
<td>Philippines</td>
<td>(1.00)</td>
</tr>
<tr>
<td>Indonesia</td>
<td>(0.50)</td>
</tr>
<tr>
<td>Singapore</td>
<td>-</td>
</tr>
<tr>
<td>People's Republic of China</td>
<td>0.50</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>1.00</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>(14)</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>(12)</td>
</tr>
</tbody>
</table>

Changes in Equity Indexes (%)

<table>
<thead>
<tr>
<th>Country</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viet Nam</td>
<td>(14)</td>
</tr>
<tr>
<td>Philippines</td>
<td>(12)</td>
</tr>
<tr>
<td>Indonesia</td>
<td>(10)</td>
</tr>
<tr>
<td>Malaysia</td>
<td>(8)</td>
</tr>
<tr>
<td>Thailand</td>
<td>(6)</td>
</tr>
<tr>
<td>People's Republic of China</td>
<td>(4)</td>
</tr>
<tr>
<td>Singapore</td>
<td>(2)</td>
</tr>
<tr>
<td>Hong Kong, China</td>
<td>0</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>0</td>
</tr>
</tbody>
</table>

Note. Data reflect changes between 1 March 2018 and 31 May 2018. Source: AsianBondsOnline calculations based on Bloomberg LP data.
CDS Spreads Rise in Most Emerging East Asian Markets

Credit Default Swap Spreads (Senior 5-year)

Republic of Korea
People’s Republic of China
Thailand
Philippines
Viet Nam
Malaysia
Indonesia

Note. Data reflect changes between 1 March 2018 and 31 May 2018.
Source: AsianBondsOnline calculations based on Bloomberg LP data.
Foreign Holdings of Government Bonds Slightly Fell for Most Markets in March

LHS = left-hand side, RHS = right-hand side.
Note: Data as of 31 March 2018 except for Japan and the Republic of Korea (31 December 2017).
Source: AsianBondsOnline.
Emerging East Asia’s LCY bond market continued to expand in the first quarter of 2018, albeit at a pace of only 1.1% q-o-q to reach USD12.8 trillion at the end of March.

- Growth decelerated from the 3.3% q-o-q increase posted in Q4 2017.
- Government bonds continued to dominate the region’s bond market accounting for a 66.9% share of total bonds at the end of March.

The People’s Republic of China remained the largest bond market in the region.

The Republic of Korea had the highest bonds to GDP share.

LCY bond issuance fell for the second consecutive month in Q1 2018 to USD1.0 trillion, driven largely by the lower issuance volume in the PRC which accounts for nearly half of the regional total issuance.
LCY Bond Markets Continue to Grow

Size of Emerging East Asia’s LCY Bond Market

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

Source: AsianBondsOnline.
PRC Remains the Largest Bond Market in the Region

LCY Bonds Outstanding

Source: AsianBondsOnline.
Share of LCY Bonds to GDP is the Largest in the Republic of Korea

Notes: Data as of end-March 2018.
Source: AsianBondsOnline.

asianbondsonline.adb.org
ABO Website Revamp: Phase One

• Web design overhaul

• Data Portal
  – Interactive and easy navigation of the various indicators/data provided by ABO
  – Users are able to select fields (Indicator, Economies, Years)
  – Users can generate online figures upon their inquiry criteria as well as downloadable data set.
  – This saves users’ time and make relevant information easier to find.

• Official Launch: July 3, 2018
• Recent and upcoming events and publications
• What’s New Section
• Data Portal
• Market Watch
• Research (publications)
• Links to various Bond Pricing Agency websites
Home Page

- Carousel of recent and upcoming publications and events
- What’s New
  - Top regional and economy-specific news updated daily
  - Recent news and events of ABMI
  - Recent data updates
Home Page

Data Portal Section

- Search tool
  - Users can select indicator, economies, period coverage
  - Results will lead them to Data Portal Page

Data Highlight of the Month

- Selected bond market indicators can change depending on what ABO will want to highlight.

Market Watch Section

- Historical chart of 10-year yields
- Daily updates on 2-year and 10-year government bond yields, equity indexes, and currency movements from previous day and year-to-date
- Links at the bottom that will lead to Market Watch page that contains more indicators

For more Bond Market indicators, visit Data Portal page.
For more Market Watch indicators, visit Market Watch page.

Source: AsiaBondsonline.adb.org
Home Page

Research Section

Links to various publications by AsiaBondsOnline
- Asia Bond Monitor
- Weekly Debt Highlights

ABMF/ABMI
- Bond Market Guides
- Other policy papers

Other Publications
Users can select the following:

- Indicators from the different categories
- 1 or more economies
- 1 or more years for period coverage

Selected indicator/s, economies and period will be shown here

Quick guide on how to navigate the Data Portal Page
Users can also click on the (?) button to see the metadata of each indicator which will include:

- Data description
- Economies with available data
- Years with available data
- Frequency
- Latest data available
Data Portal (New)

Users can choose:

- 1 or more economies
- Aggregates for ASEAN, ASEAN+2, and ASEAN+3 (if applicable)
Users can download the chart.

Users can choose to get a line-trend to present only the totals per market.

Chart has a mouse-over feature, users can easily check value of a specific data point.
Data Portal (New)

Users can also choose to do a new data search, by clicking “New Selection”.

Toggle/deselect option: Users can choose to deselect a certain data series to compare the remaining markets in more detail.
Data Portal (New)

Chart also has a zoom in option to select data points that are too small.

Users can now check details of the smaller data points

User can reset the zoom in option to go back to the whole time series.
At the bottom of the chart is a description of the selected bond market indicator.

Notes and sources for each economy/ies selected.

Excel/csv files can be downloaded which will also include the following:
- Metadata
- Indicator description
- Notes
- Sources
Market Watch Page

- Various indicators on yield movements, risk and volatility, currency movements, equity markets that are mostly updated on a daily basis.

- Unlike the Data Portal page, charts and data are not downloadable given license agreements with data providers.
Publications and Events Page

Publications
- Lists the various publications of AsiaBondsOnline:
  - Asia Bond Monitor
  - Weekly Debt Highlights
  - Monthly Debt Roundup (upcoming)

ABMF/ABMI
- Bond Market Guides
- Other policy papers

Other Publications
- ADB Working Papers, etc.
Publications and Events Page

Events
- Lists the various upcoming and previous events held/participated by ABO.
- Each event will include the program; presentations and event photos (if applicable)
Economies Pages

OLD WEBSITE

NEW WEBSITE

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

Market Watch

- **LCY Government Bond Yield Movements**
  - Chart showing bond yield movements over a period.
- **News Highlights**
  - Ringgit slips against US$ as manufacturing sector slowing.
  - Foreign selling of »Thai equity shares rises as private companies pull out of the market.
  - Ringgit rates down amid concerns over political risk.
  - Malaysian government may seek a lower revenue from Pertamina as profit jumps.

- Read full index for News and Commentary

- **Bond Issues**
  - CIMB Bank unveils largest US dollar bond offering in Reg
  - Editors To Raise US$600 Million Via Equity Private Placement

- Read full index for bond issuances

Policy Rates

- **LCY Government Bond Yield Movements**
  - Chart showing bond yield movements over a period.
- **News Highlights**
  - Ringgit slips against US$ as manufacturing sector slowing.
  - Foreign selling of »Thai equity shares rises as private companies pull out of the market.
  - Ringgit rates down amid concerns over political risk.
  - Malaysian government may seek a lower revenue from Pertamina as profit jumps.

- Read full index for News and Commentary

- **Bond Issues**
  - CIMB Bank unveils largest US dollar bond offering in Reg
  - Editors To Raise US$600 Million Via Equity Private Placement

- Read full index for bond issuances

Sovereign Ratings

- **LCY Government Bond Yield Movements**
  - Chart showing bond yield movements over a period.
- **News Highlights**
  - Ringgit slips against US$ as manufacturing sector slowing.
  - Foreign selling of »Thai equity shares rises as private companies pull out of the market.
  - Ringgit rates down amid concerns over political risk.
  - Malaysian government may seek a lower revenue from Pertamina as profit jumps.

- Read full index for News and Commentary

- **Bond Issues**
  - CIMB Bank unveils largest US dollar bond offering in Reg
  - Editors To Raise US$600 Million Via Equity Private Placement

- Read full index for bond issuances
Economies Pages

New tab in individual Economies Page

- Same format of Data Portal Page, but provides only a snapshot (most recent three years), no historical data

- For historical data, there is a link at the bottom of the chart to Data Portal

asianbondsonline.adb.org
Website Updates: a summary

• Phase 1 was primarily focused on:
  – Revamping website to make it more visually pleasing and improve readability to site users
  – Making data more accessible by-
    • Creating a data portal to make it easier to find data
    • Adding interactive features to help users in accessing and downloading data
Website Updates: Future Plans

• Future Phases Will Be Focused On:
  – Expanding the breadth of the data
    • New bond indicator: Foreign Bond Flows
    • Interactive regulation in collaboration with BMG team
    • Add additional data indicators such as:
      – Macroeconomic data (inflation, etc.)
      – More bond data such as foreign currency issuance data
      – Work to add data currently not available for certain markets (ie. trading volume for Philippines)
Foreign Bond Flows (New)

- Currently also working to include data for Philippines
Regulations Page (New)

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

Home  Data Portal  Economics  Market Watch  Publications and Events  Regulations

Home / Regulations

Regulations

Regional Overview

The Asian bond market is supervised by several regulatory agencies. The functions and descriptions of these agencies are discussed in this section.
Website Updates: Future Plans

– Work with government agencies in order to revise data released by government to meet investor needs for transparency
  • Design and create data that is currently not available such as non-resident holdings
  • Greater granularity in data
– Provide more breakdowns in existing bond data
  • Such as greater breakdowns in bond and issuance data
Website Updates: Future Plans

• Find ways to reach out to more users
  – Convenience: Development of apps
  – Up-to-date: Market summary on a monthly basis
  – Conduct another user survey for further improvements
Thank you.

Email us at:

asianbonds_info@adb.org
asianbonds_feedback@adb.org
I. Introduction of CGIF

II. Corporate bond market sizes of ASEAN6

III. Characteristics of Corporate bonds of ASEAN6
| **Legal Structure** | **A Trust Fund of the Asian Development Bank (ADB)**  
*Governed by CGIF Articles of Agreement, ADB acts as the Trustee for CGIF’s assets* |
| **Establishment** | **12 November 2010** *(commenced operations May 2012)* |
| **Paid-In Capital** | **US$ 859 million** |
| **Maximum Leverage** | **2 to 2.5 times** |
| **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)*  
**ASEAN Scale**  
*AAA (RAM - Malaysia)*  
**National Scale**  
*AAA (RAM, MARC – Malaysia, TRIS Rating – Thailand Fitch Ratings – Indonesia)* |
I. Introduction of CGIF

II. Corporate Bond Market Sizes of ASEAN+3

III. Characteristics of Corporate Bonds of ASEAN6
Corporate Bond Market Size
(As of 31 Dec 2017)

(Data Source: AsianBondsOnline)
Corporate Bond Market Size / Market Cap
Corporate Bond Market Size / GDP
(As of 31 Dec 2017)
(Data Source: AsianBondsOnline)
Relative Size (2)

(Data Source: AsianBondsOnline, Central Banks)
I. Introduction of CGIF

II. Corporate Bond Market Sizes of ASEAN+3

III. Comparison of Corporate Bonds of ASEAN6

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

(Data Source: Bloomberg, 31 Dec 2017)

Notes:
1. Ranges include long-end tenors and exclude short-end tenors.
2. Data refers to original maturity
<table>
<thead>
<tr>
<th>Country</th>
<th>Special Feature</th>
<th>Reason behind</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia</td>
<td>Over 10 year maturity bonds occupy a substantial share (36%) of the corporate</td>
<td>Infrastructure bonds occupy more than 30% of corporate bonds in Malaysia</td>
</tr>
<tr>
<td></td>
<td>bond market.</td>
<td></td>
</tr>
<tr>
<td>Philippine</td>
<td>Bonds having the maturities between 5 to 10 years occupy a majority share (79%)</td>
<td>Bank bonds whose issuance maturities are longer than 5 years are exempt from</td>
</tr>
<tr>
<td></td>
<td>of the corporate bond market.</td>
<td>WHT (withholding tax).</td>
</tr>
</tbody>
</table>
Callable includes perpetual callable, extendible, put callable. Sinkable includes callable sink, extendible sink. Convertible includes whatever convertible.

(Data Source: Bloomberg, 31 Dec 2017)
### Maturity Type (2)

<table>
<thead>
<tr>
<th>Country</th>
<th>Special Feature</th>
<th>Reason behind</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippine</td>
<td>Callable bonds (62%) are more common than straight bonds (33%).</td>
<td>Issuers have more bargain power than investors in Philippine, which enables issuers to issue callable bonds with little spread.</td>
</tr>
</tbody>
</table>
Coupon Type (1)

(Data Source: Bloomberg, 31 Dec 2017)
<table>
<thead>
<tr>
<th>Country</th>
<th>Special Feature</th>
<th>Reason behind</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vietnam</td>
<td>Fixed coupon bonds occupy only 35% of the corporate bond market whereas the sum of floating and variable coupon bonds occupies 58%.</td>
<td>Variable coupon is similar to floating coupon in Vietnam as both are linked to 12M deposit rate. The difference is that the first coupon of variable coupon bond is fixed whereas that of floating coupon bond is floating. These coupon types are preferred by commercial banks, the biggest investor group in Vietnam, whose liabilities are also linked to deposit rates.</td>
</tr>
</tbody>
</table>
Payment Rank (1)

(Data Source: Bloomberg, 31 Dec 2017)
<table>
<thead>
<tr>
<th>Country</th>
<th>Special Feature</th>
<th>Reason behind</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>Secured bonds occupy a substantial share (26%) of the corporate bond market.</td>
<td>Majority of corporate bonds are issued by financial entities and it is common for financial entities to provide receivables as collateral when they issue bonds in Indonesia.</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Secured bonds occupy a majority share (52%) of the corporate bond market.</td>
<td>High percentage of secured bonds in Malaysia is linked to high percentage of project bonds.</td>
</tr>
</tbody>
</table>
Note:
1. Rating agencies used for each country: Pefindo (Indonesia), RAM (Malaysia), PhilRatings (Philippines), Moody’s (Singapore), TRIS (Thai)
2. Unrated bonds are excluded.

(Data Source: Bloomberg, 31 Dec 2017)
<table>
<thead>
<tr>
<th>Country</th>
<th>Special Feature</th>
<th>Reason behind</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia</td>
<td>Rating cliff (mostly AAA and AA)</td>
<td>Rating cliff of Malaysia is told to be attributed to credit event experience during the financial crisis.</td>
</tr>
<tr>
<td>Philippine</td>
<td>Rating cliff (only AAA and AA)</td>
<td>Companies tap bond market only when they can no longer use bank loans due to single borrower’s limit, 25% of bank’s net capital. Small companies hardly touch the limit.</td>
</tr>
<tr>
<td>Thailand</td>
<td>Generous credit appetite</td>
<td>About half of corporate bond investors are retails, who pursue yields.</td>
</tr>
<tr>
<td>Vietnam</td>
<td>No corporate bond having a credit rating</td>
<td>No local credit rating agency exists in Vietnam.</td>
</tr>
</tbody>
</table>
Guaranteed Bonds (1)

Share of Guaranteed bonds from Total Corporate Bonds

(Data Source: Bloomberg, 31 Dec 2017)
### Guaranteed Bonds (2)

<table>
<thead>
<tr>
<th>Country</th>
<th>Special Feature</th>
<th>Reason behind</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia</td>
<td>Guaranteed bonds occupy a substantial share (30%) of the corporate bond market.</td>
<td>Danajamin, national guarantor, plays a significant role in Malaysian corporate bond market.</td>
</tr>
<tr>
<td>Singapore</td>
<td>Guaranteed bonds occupy a substantial share (40%) of the corporate bond market.</td>
<td>Most of guarantees are done by parent companies.</td>
</tr>
<tr>
<td>Thailand</td>
<td>Partially guaranteed bonds</td>
<td>Big yield gap between A- and BBB+ gives the chance of partial guarantee.</td>
</tr>
<tr>
<td>Vietnam</td>
<td>High percentage of CGIF guaranteed bonds (4 out of 7)</td>
<td>In line with CGIF’s mission to promote less developed corporate bond market.</td>
</tr>
</tbody>
</table>
Guaranteed Bonds (3)

THB Yield Matrix

<table>
<thead>
<tr>
<th></th>
<th>1Y</th>
<th>2Y</th>
<th>3Y</th>
<th>5Y</th>
<th>7Y</th>
<th>10Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury</td>
<td>1.46</td>
<td>1.52</td>
<td>1.56</td>
<td>1.74</td>
<td>1.83</td>
<td>2.05</td>
</tr>
<tr>
<td>AAA</td>
<td>1.64</td>
<td>1.81</td>
<td>1.87</td>
<td>2.11</td>
<td>2.30</td>
<td>2.63</td>
</tr>
<tr>
<td>AA+</td>
<td>1.77</td>
<td>1.99</td>
<td>2.09</td>
<td>2.39</td>
<td>2.62</td>
<td>3.00</td>
</tr>
<tr>
<td>AA</td>
<td>1.78</td>
<td>2.01</td>
<td>2.11</td>
<td>2.41</td>
<td>2.64</td>
<td>3.02</td>
</tr>
<tr>
<td>AA-</td>
<td>1.80</td>
<td>2.03</td>
<td>2.13</td>
<td>2.43</td>
<td>2.66</td>
<td>3.04</td>
</tr>
<tr>
<td>A+</td>
<td>1.85</td>
<td>2.10</td>
<td>2.22</td>
<td>2.55</td>
<td>2.80</td>
<td>3.20</td>
</tr>
<tr>
<td>A</td>
<td>1.85</td>
<td>2.10</td>
<td>2.23</td>
<td>2.55</td>
<td>2.80</td>
<td>3.21</td>
</tr>
<tr>
<td>A-</td>
<td>1.87</td>
<td>2.13</td>
<td>2.25</td>
<td>2.59</td>
<td>2.84</td>
<td>3.25</td>
</tr>
<tr>
<td>BBB+</td>
<td>3.09</td>
<td>3.36</td>
<td>3.50</td>
<td>3.85</td>
<td>4.11</td>
<td>4.53</td>
</tr>
<tr>
<td>BBB</td>
<td>3.34</td>
<td>3.63</td>
<td>3.78</td>
<td>4.15</td>
<td>4.43</td>
<td>4.87</td>
</tr>
</tbody>
</table>

(Data: Bloomberg, as of 8 Aug 16)
According to TRIS rating, BBB+ rated company’s bond can be rated A- if it is 40% guaranteed by AA+ bank in Thailand.

Below is the table comparing the economic value between full guarantee and partial guarantee from the AA+ rated guarantor’s perspective. (Assume that BBB+ rated company wants to issue 5-year bond amounting to THB 100M)

<table>
<thead>
<tr>
<th>Guarantee</th>
<th>Issuer’s stand alone funding cost (A)</th>
<th>Coupon of guaranteed bond (B)</th>
<th>Maximum guarantee fee payable (A-B)</th>
<th>Guarantee amount</th>
<th>Maximum guarantee fee per 1M guarantee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Guarantee</td>
<td>3.85M (3.85% \times 100M)</td>
<td>2.39M (2.39% \times 100M)</td>
<td>1.46M</td>
<td>100M</td>
<td>14.6K</td>
</tr>
<tr>
<td>Partial Guarantee</td>
<td>3.85M (3.85% \times 100M)</td>
<td>2.59M (2.59% \times 100M)</td>
<td>1.26M</td>
<td>40M</td>
<td>31.5K</td>
</tr>
</tbody>
</table>

(1 BBB+ 5-year rate, 2 AA+ 5-year rate, 3 A- 5-year rate)

(* Economic analysis above is only for illustrative purpose, may be away from real values)
Cross Border (1)

(Data Source: Bloomberg, 31 Dec 2017)
<table>
<thead>
<tr>
<th>Country</th>
<th>Special Feature</th>
<th>Reason behind</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>High inbound percentage</td>
<td>Almost all inbounds are settled in hard currencies like USD or JPY. They are issued by financial institutions for economic reason. Average maturity (16Y) of USD bonds issued by Indonesian entities is much longer than that (4.5Y) of IDR bonds, which implies that Indonesian entities rely on offshore funding when they need long term funding.</td>
</tr>
<tr>
<td></td>
<td>High outbound percentage</td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td>High inbound percentage</td>
<td>SGD is 1) a low interest rate currency and 2) easy to be converted to other currencies.</td>
</tr>
<tr>
<td>Country</td>
<td>Summary of Characteristics</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>Less developed corporate bond market with incongruously active cross borders</td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td>Relatively developed corporate bond market with the longest average tenor among ASEAN 6. However, less generous to credit.</td>
<td></td>
</tr>
<tr>
<td>Philippine</td>
<td>Less developed corporate bond market, only for AAA and AA rated issues. 5 to 10 year maturity class dominates the market.</td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td>Relatively developed corporate bond market with high percentage of parent guarantee.</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>Relatively developed corporate bond market with generous credit appetite compared with peers and preference of simple type.</td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td>Least developed corporate bond market among ASEAN 6.</td>
<td></td>
</tr>
</tbody>
</table>
Thank You

Dong Woo Rhee

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1550, Metro Manila, Philippines
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www.cgif-abmi.org
AMBIF Taxation Study

Kosintr Puongsophol
Financial Sector Specialist
Economic Research and Regional Cooperation Department

28th ASEAN+3 Bond Market Forum (ABMF)
19 June 2018, Fukuoka, Japan
RECAP FROM LAST MEETING

1. Emphasized the importance of local currency bond market and key financial pillars

2. Proposed to complete the study by June 2018
   1. Bond Market Overview
   2. Key Development Milestones, including bond market development plans
   3. Bond Market Taxation in Thailand
      ▪ Description of different types of taxes
      ▪ Major developments and policy implications
      ▪ Current framework
   4. Recommendation
WHY DO WE NEED LOCAL CURRENCY CAPITAL MARKETS?

LCY bond market has helped the government (1) to reduce reliance on offshore funding and (2) to reduce foreign exchange risk.

Source: ThaiBMA
WHY DO WE NEED LOCAL CURRENCY CAPITAL MARKETS?

After the 1997 crisis, Thai Bond Market has significantly grown from 12% of GDP to 76%. This created more balance among 3 main financial pillars (bank loan, equity and bond market). Corporate bond has been continuously increasing, and unaffected by 2008 subprime crisis impacts.

Source: ThaiBMA
Prior to 1999
- Domestic Bond Market Development Committee was established

1999
- Public Debt Management Office (PDMO) was established

2001

2005

2016
- Developing Strategy and Regulating Bond Market
EVOLUTION OF BOND MARKET DEVELOPMENT

Domestic Bond Market Development Committee

- Task Force: solving problems in
  - Primary Market
  - Secondary Market
  - Clearing and Settlement System
  - Taxation on Debt Instrument Transaction
  - Bond Market Information
  - Market Convention and Code of Conduct
  - Debt Management Office
  - Private Repo Market

- Composition:
  - MOF
  - BOT
  - SEC
  - Thai BDC
  - Commercial Banks

The establishment of Public Debt Management Office (1 Oct 1999)

Source: Public Debt Management Office
Objectives:
1. Strengthen the role of bond market in promoting financial market and economic stability
2. Develop Thailand's bond market as a regional fund raising hub and investment destination of choice
## CURRENT CAPITAL MARKETS TAXATION FRAMEWORK

<table>
<thead>
<tr>
<th>Types of Income</th>
<th>Resident Retail Investors</th>
<th>Resident Juristic Persons</th>
<th>Non-Residents Juristic Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equity Securities:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital gains</td>
<td>Exempted</td>
<td>No WHT, but subject to CIT</td>
<td>15% FWT^</td>
</tr>
<tr>
<td>Dividends</td>
<td>10% WHT</td>
<td>10% WHT</td>
<td>15% FWT</td>
</tr>
<tr>
<td><strong>Debt Securities:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capital gains</td>
<td>15% WHT</td>
<td>No WHT, but subject to CIT</td>
<td>15% FWT**</td>
</tr>
<tr>
<td>Interest</td>
<td>15% WHT</td>
<td>No WHT (FI-FI*), but subject to CIT, or else 1% WHT</td>
<td>15% FWT**</td>
</tr>
<tr>
<td>Discount</td>
<td>15% WHT taxed at fist hand</td>
<td>No WHT (FI-FI*), but subject to CIT, or else 1% WHT</td>
<td>15% FWT** only at first hand</td>
</tr>
<tr>
<td><strong>Stamp Duty</strong></td>
<td></td>
<td>1 THB for every 1,000THB (0.1%)***</td>
<td></td>
</tr>
<tr>
<td><strong>Special Business Tax</strong></td>
<td></td>
<td>0.01% for interest income on bonds</td>
<td></td>
</tr>
</tbody>
</table>

^ Foreign investors from these countries are exempted from capital gain tax under tax treaties
* Under the law of finance business, securities business and credit foncier business
**Except gains/interest/discount from bond issued by government, state agencies, or financial institution under specific law for the agricultural, commerce and industrial lending
*** Only apply to physical certificates of non-listed securities. Transfer of government securities is exempted
OTHER ISSUES

1. Replenishment of Financial Institution Development Fund (FIDF)

2. Proposed tax on bond fund
OTHER ISSUES: Replenishment of FIDF

1. Replenishment of Financial Institution Development Fund (FIDF)

• The Emergency Decree on management revision of the Ministry of Finance’s debt occurred from aiding the Financial Institutions Development Fund was enacted on January 27, 2012.

• The decree paves way for calling up contribution from existing financial institutions to help shoulder the burden of principle and interest payment of FIDF’s massive debt.

• The current contribution is set at 0.46% p.a. from average deposits and funds received from the general public which includes funds received from security sale transactions under the repurchase agreement.
OTHER ISSUES

2. Proposed tax on bond fund

• The Ministry of Finance is currently considering amending a system of tax implication on debenture investment through Thai mutual fund.

• The draft amendment to the Revenue Code proposes to cancel the exemption on mutual funds and its unit holders’ income deriving from debentures investment.
NEXT STEPS

1. Submit the draft report to relevant authorities for review by July

2. Finalize the AMBIF Taxation Study for Thailand by August

3. Present findings and circulate the report to ABMF members at the 29th ABMF meeting
THANK YOU
Market Visit - China

June 19th, 2018

NTT DATA SYSTEM TECHNOLOGIES INC.
3 ways to get access to China Interbank Bond Market for foreign investors

- **QFII/RQFII**
  - Foreign investors can trade bonds in a limited quota in the onshore bond market.

- **CIBM direct**
  - Foreign investors can participate CIBM (China Interbank Bond Market) to trade bonds directly. The settlement can be done with CCDC and SHCH in the onshore market.

- **Bond Connect**
  - Domestic and foreign investors can trade through the linkage between Mainland and Hong Kong bond market. The settlement can be done in the offshore bond market through CMU.
### Account Opening for OTC Market

<table>
<thead>
<tr>
<th>Investor type</th>
<th>Regulators and Market Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CSRC</td>
</tr>
<tr>
<td>Domestic</td>
<td>N/A</td>
</tr>
<tr>
<td>Foreign</td>
<td></td>
</tr>
<tr>
<td>QFII, RQFII</td>
<td>- Approve license</td>
</tr>
<tr>
<td>CIBM direct</td>
<td>N/A</td>
</tr>
<tr>
<td>Bond Connect</td>
<td>N/A</td>
</tr>
</tbody>
</table>

- Foreign Investor entrusts the settlement agent to file all applications on behalf of the investor.
- The submission of KYC information is standardized and the information is accepted in electronic form.
## Account Opening for Exchange Market

<table>
<thead>
<tr>
<th>Investor type</th>
<th>Regulators and Market Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CSRC</td>
</tr>
<tr>
<td>Domestic</td>
<td>-</td>
</tr>
<tr>
<td>Foreign (QFII,RQFII)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

- Foreign Investor entrusts the settlement agent to file all applications on behalf of the investor.
- The submission of KYC information is standardized and the information is accepted in electronic form.
Account structure depends on market segment and nature of investor.

<table>
<thead>
<tr>
<th>Nature of Investor</th>
<th>Segment</th>
<th>Exchange Market</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OTC Market</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CCDC/SHCH</td>
<td></td>
</tr>
<tr>
<td>Domestic Investor</td>
<td>Segregate/Omnibus(Commercial Bank)</td>
<td>Segregate</td>
</tr>
<tr>
<td>Foreign Investor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QFII/RQFII</td>
<td>Segregate</td>
<td>Omnibus(Settlement Agent)</td>
</tr>
<tr>
<td>CIBM direct</td>
<td>Segregate</td>
<td>-</td>
</tr>
<tr>
<td>Bond Connect</td>
<td>Omnibus(CMU)</td>
<td>-</td>
</tr>
</tbody>
</table>

Account naming convention follows market access and market segment prescriptions. E.g. Domestic investors in own name or via commercial bank, QFII/RQFII and CIBM direct in own name or via agent, Bond Connect investors via CMU.
### Transactions in the OTC Market

<table>
<thead>
<tr>
<th></th>
<th>Domestic Investor</th>
<th>Foreign Investor</th>
<th>Bond Connect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>QFII/RQFII</td>
<td>CIBM direct</td>
</tr>
<tr>
<td>Pre-Funding</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Trade</td>
<td>CFETS</td>
<td>CFETS</td>
<td>CFETS</td>
</tr>
<tr>
<td>Bond Settlement</td>
<td>-CCDC -SHCH</td>
<td>-CCDC -SHCH</td>
<td>-CCDC -SHCH</td>
</tr>
<tr>
<td>Cash Settlement</td>
<td>-CNAPS -CCDC -SHCH</td>
<td>-CNAPS -CCDC -SHCH</td>
<td>-CNAPS -CCDC -SHCH</td>
</tr>
</tbody>
</table>
## Transactions in the Exchange Market

<table>
<thead>
<tr>
<th></th>
<th>Domestic Investor</th>
<th>Foreign Investor QFII/RQFII</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-Funding</strong></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Trade</strong></td>
<td>-SHSE</td>
<td>-SHSE</td>
</tr>
<tr>
<td></td>
<td>-SZSE</td>
<td>-SZSE</td>
</tr>
<tr>
<td><strong>Bond Settlement</strong></td>
<td>CSDC</td>
<td>CSDC</td>
</tr>
<tr>
<td><strong>Cash Settlement</strong></td>
<td>Commercial Bank</td>
<td>Commercial Bank</td>
</tr>
</tbody>
</table>
ISO 20022 – Universal financial industry message scheme

June 19, 2018

Masayuki Tagai
Vice Convenor,
ISO 20022 Registration Management Group (RMG)
ISO 20022 - Universal financial industry message scheme, the recipe:

- syntax neutral business modelling methodology
- syntax specific design rules
- industry led development/registration process
- financial repository on www.iso20022.org
- reverse engineering approach to ease coexistence
Why ISO 20022?
Supports convergence and co-existence

Long term we want **one standard**, but in the interim several standards need to **co-exist**…
All institutions have their own sets of data objects...

ISO standardizes common data objects...

...and groups them into ‘syntax-neutral’ message models, which...

...can be ‘transformed’ in message formats in the desired syntax.
The ISO 20022 recipe
Main ingredients (1/2):

- **Modelling-based standards development**
  - Syntax-independent business standard
  - Validated by the industry

- **Syntax-specific design rules for XML and ASN.1**
  - Predictable and ‘automatable’
  - Protect standard from technology evolution

- **Reverse engineering approach**
  - Protect industry investment and ease interoperability
  - Prepare for future migration
The ISO 20022 recipe
Main ingredients (2/2):

■ Development / registration process
  – Clearly identified activities and roles
  – Business experts and future users involved upfront
  – Technical experts involved when required

■ Repository on the ISO 20022 website
  – Business Process Catalogue & Data Dictionary
  – Outside of official standard (maintained by registration bodies)

www.iso20022.org
The eight parts of ISO 20022

- Part 1: Metamodel
- Part 2: UML profile
- Part 3: Modelling
- Part 4: XML schema generation
- Part 5: Reverse engineering
- Part 6: Message transport characteristics
- Part 7: Registration
- Part 8: ASN.1 generation

Copies can be obtained from [www.iso.org](http://www.iso.org)
ISO 20022 - The Financial Repository

- **Data Dictionary**
  - Business Concepts
  - Message Concepts
  - Data Types

- **Business Process Catalogue**
  - Financial business process models
  - Financial business transactions, including messages
  - XML or ASN.1 message schemas

[www.iso20022.org](http://www.iso20022.org)
ISO 20022: The actors (1/2)

Submitting organisations

Communities of users or organisations that want to develop ISO 20022 compliant messages to support their financial transactions

Could be

- ANBIMA
- ASF
- Banco de España
- Bank of England
- Banque de France
- Berlin Group
- BIAN
- CBI Consortium
- CFETS
- CFTC
- China UnionPay
- Clearstream
- CLS
- Danish Bankers Association
- Deutsche Bundesbank
- DTCC
- Early Warning Services
- EPC
- ESMA
- Euroclear
- European Central Bank
- FED
- FFI
- FISD
- FPL
- FpML
- IFX Forum
- ISITC
- nexo A.I.S.B.L.
- OAGi
- Omgeo
- Payments UK
- PBOC
- RU-CMPG
- SABS
- SPRING
- SWIFT
- Target
- TC68/SC7/TG1
- Tieto Corporation
- TWIST
- T2S
- UN/CEFACT
- etc.
ISO 20022: The actors (2/2)

- **Registration Management Group, RMG**
  - Overall governance, court of appeal
  - Approve business justifications for new message standards
  - Approve new member entities
  - Create Standard Evaluation Groups (SEGs) and SubSEGs

- **Standards Evaluation Groups, SEGs and SubSEGs**
  - Represent future users in specific financial areas
  - Validate new candidate messages and change requests

- **Registration Authority, RA**
  - Ensure compliance
  - Maintain and publish ISO 20022 Repository

- **Technical Support Group, TSG**
  - Assist RMG, SEGs, RA and submitting organisations
ISO 20022
The registration process (1/3)

Financial industry group or standards body
Business justification
Project approval & allocation to a SEG
Development & provisional registration
Business validation
Official registration and publication
Optional pilot testing or first implementers

Submitting organisation
Business justification
RMG
Submitting organisation & RA
SEG
RA
Submitting organisation & users

Repository
Dictionary
Catalogue

www.iso20022.org
ISO 20022
The registration process (2/3)

- Submitting organisation
- Business justification
- RMG
- Submitting organisation & RA
- SEG
- RA
- Submitting organisation & users

Financial industry group or standards body
Business justification
Project approval & allocation to a SEG
Candidate ISO 20022 messages
Development & provisional registration
Business validation
Official registration and publication
ISO 20022 messages
Optional pilot testing or first implementers
Repository
Dictionary
Catalogue

www.iso20022.org
Users introduce Change Requests to the RA
SEG screens Change Requests (CRs)
Submitting organisation prepares ‘Maintenance Change Request’ with each CR implementation
SEG approval/rejection
Development of candidate new versions
Provisional publication
Validation of new versions
Registration and publication
First implementers
Continuing with today’s agenda

ISO 20022

Interoperability within the financial industry
All institutions have their own sets of data objects and group them into 'syntax-neutral' message models, which can be 'transformed' in message formats in the desired syntax.

ISO standardizes common data objects...

...and groups them into 'syntax-neutral' message models, which...

Using ISO 20022 modelling to reach interoperability
ISO 20022 compliance at model level

Repository

Dictionary

Catalogue

Card payments

Payments clearing & settlement

ISO 20022 ASN.1 syntax

ISO 20022 XML syntax

ISO 20022 Dictionary

ISO 20022 message models

physical message representation
ISO 20022 compliance at model level

ISO 20022 Dictionary

ISO 20022 message models

physical message representation

ISO 20022 compliant
‘using a domain specific syntax’

Repository

Dictionary

Catalogue

Card payments

Payments clearing & settlement

other syntax

ISO 20022 syntax

ISO 20022 compliant
“Investment Roadmap”
for ISO, FIX, XBRL and FpML syntaxes

The Investment Roadmap is maintained by the Standards Coordination Group including the following organisations:

- FIX PROTOCOL
- FpML
- ISITC
- SIIA/FISD.net
- SWIFT
- XBRL

Download the Investment Roadmap and related FAQ
ISO 20022 – Usage Update
The ISO 20022 recipe is used! (1/11)

Payments

Debtor’s bank

Credit Transfers / Direct Debits / Mandates
Exception & Investigations
Change/Verify Account Identification
Creditor Payment Activation Request
Cash Management

Account Switching

Creditor’s bank

Financial Investigations

Debtor

Credit Transfer Initiation
Advice & Statement
Exceptions & Investigations
Bank Account Management
Creditor Payment Activation Request
Account Reporting Request
Bank Services Billing
Stand-Alone Remittance Advice

ISO 20022
Candidate ISO 20022 (in development)
The ISO 20022 recipe is used! (2/11)
Payments message portfolio is growing!

- 89 ISO 20022 messages approved:
  - Customer payment initiation
  - Interbank payment clearing and settlement
  - Payments exceptions & investigations
  - Bank-to-customer cash management
  - Payments mandates
  - Change/verify account identification
  - Bank account management
  - Creditor payment activation request
  - Cash account reporting request & notification messages
  - Bank services billing
  - Authorities financial investigations
  - Stand-alone remittance advice messages
  - Cross-border transactions currency control reporting (CTCCR)
  - Account Switching

- 31 candidate ISO 20022 messages under evaluation:
  - Cash management

- Candidate ISO 20022 messages approved for development:
  - Payment pre-authorization (PaPA)
  - Proxy for banking account numbers

- New development proposal: none
The ISO 20022 recipe is used! (3/11)  
Card message portfolio is growing

Authorisation (ATICA)

Acquirer

Authorisation

Issuer

POI transaction authorisation (CAPE)

POI Terminal Management (CAPE)

ATM transaction authorisation

ATM terminal Management

ISO 20022

Candidate ISO 20022 (in development)

Sale Management (CAPE)
69 ISO 20022 messages approved:

- Card payments exchanges (CAPE) – Acceptor to Acquirer and Terminal Management
- ATM interface for transaction processing and ATM management
- Acquirer to issuer card messages (ATICA – first version)

Candidate ISO 20022 messages under evaluation

- none

Candidate ISO 20022 messages approved for development:

- Card Payments Exchanges (CAPE) - Sale-to-POI management
- Payment Tokens Management Management Exchanges (TOKE)
- Acquirer to issuer card messages (ATICA – second version)
The ISO 20022 recipe is used! (5/11)
Securities - equities and fixed income

- Pre-trade / Trade (FIX/SWIFT)
- Post-Trade (Omgeo/SWIFT)
- CCP Clearing (FPL/SWIFT)
- I/CSD Settlement & Reconciliation (SWIFT)
- Corporate Actions (SWIFT)
- Reconciliation TPV Statement (ISITC/SWIFT)
- Corporate Actions Communication (Euroclear)
- Issuers’ Agent
- Issuers’ Agent
- Settlement & Reconciliation (SWIFT)
- Settlemnent (SWIFT)
- Reconciliation (SWIFT)
- Corporate Actions (SWIFT)

Regulators
Financial Instruments and Transactions Regulatory Reporting (ESMA)
The ISO 20022 recipe is used! (6/11) Securities - investment funds (CIV)

New plan manager

Institutional investor

Order & Confirmation & Status
Transfer & Confirmation & Status
Transparency of Holdings
Statements
Account Management

Old plan manager

Transfer agent

Price Report

Fund accountants

Fund Cash Forecast Report

Investment manager

Prospectus or FPP report user, e.g. Fund distributor

Prospectus or FPP report provider, e.g. Fund manager

Request for Fund Report
FPP Report

Portfolio Transfers
The ISO 20022 recipe is used! (7/11)
Securities message portfolio is growing!

- 198 ISO 20022 messages approved and published:
  - Investment funds
  - Proxy voting
  - Issuers’ agents communication
  - Securities settlement and reconciliation, including ISO 15022 variants
  - Securities corporate actions, including ISO 15022 variants
  - Securities post-trade
  - Total portfolio valuation report
  - CCP Clearing
  - Collateral management
  - Money Market Statistical Reporting (MMSR)
  - Transparency of holdings
  - SSI for Securities, Payments & FX
  - Financial instruments and transactions regulatory reporting (MiFID II / MiFIR) v1

- 49 candidate ISO 20022 messages under evaluation:
  - Financial instruments and transactions regulatory reporting (EMIR & MiFID II / MiFIR v2)
  - CCP supervisory reporting
  - TARGET2-Securities

- Candidate ISO 20022 messages approved for development:
  - Securities Financing Transactions Regulatory Reporting (SFTR)
  - Securities markets regulatory reporting message sets (CSDR, BR, MMFR)

- New development proposals
  - None
The ISO 20022 recipe is used! (8/11)

Forex

Trading system

Ordering party

Trading party

FX order

FX & Loan/Deposit Advice & Allocations

Settlement party custodian

Central Settlement or Netting System

ISO 20022

Candidate ISO 20022 (in development)

MTs

FpML CUG (Trade Notifications)

Interest rate swaps

Foreign exchange instruments

Loans and deposits

FX Spot, Forward & Swap instructions

NDF and FX Option instructions (archived)

Status notifications and position information

Trade capture

Trading system
The ISO 20022 recipe is used! (9/11)
FX message portfolio is growing!

- 27 ISO 20022 messages approved and published:
  - Post Trade FX messages
  - FX Post-Trade Confirmation
  - FX Post-Trade Trade Capture

- Candidate ISO 20022 messages under evaluation:
  - None

- New development proposals
  - None
The ISO 20022 recipe is used! (10/11)
Trade Services

Buyer

Buyer’s bank

Trade Services Management

ISO 20022
Candidate ISO 20022 (in development)

TSU

Factoring Services

Seller

Seller’s bank

Invoice Financing Request

Invoice Tax Report

Tax Authority
86 ISO 20022 messages approved:
- Invoice financing request
- Trade services management
- Demand guarantees and standby letters of credit
- Factoring services
- Invoice Tax Report

Candidate ISO 20022 messages under evaluation:
- None

Candidate ISO 20022 messages approved for development:
- None

New development proposals:
- None
28th ASEAN+3 Bond Market Forum

Financial Data Standardisation Project
by European Commission DG FISMA

Michal Piechocki
CEO @ Business Reporting – Advisory Group
Representative for Poland @ ISO Technical Committee 68
Chair @ Frankfurt Group Technical Workshop
Board Member @ Eurofiling Foundation
Board Member @ XBRL International
Member @ IFRS Taxonomy Consultative Group (IASB)

Fukuoka | Japan | 19 June 2018
We may change the name of things, but their nature and their operation on the understanding never never change.

David Hume, in An Enquiry Concerning Human Understanding, (1748), Chapter VIII: Of Liberty and Necessity, Part I
European financial ecosystem

Ecosystem = Stakeholders + Law + Technologies + ?
The missing component is…

- Collected from individuals and businesses
- Generated and used in business processes & transactions
- Processed for internal management purposes
- Collated for compliance, supervisory and statistical purposes
- Shared with key stakeholders and partners
- Enabling insight, analysis and change
- Used by regulators for monitoring, supervision, macro stability evaluation
Why shall we be concerned about data?

Main factors contributing to compliance costs

- Too many requirements: 3.68
- Unclear/vague requirements: 3.45
- Redundant requirements: 3.22
- Too many/too frequent amendments: 3.11
- Need to report under several diff. rep. frameworks: 2.94
- Lack of interoperability: 2.82
- Need to report too frequently: 2.82
- Overlapping requirements: 2.71
- Lack of technical guidance: 2.66
- Inconsistent requirements: 2.64
- Insufficient level of automation: 2.59
- Lack of a common financial language: 2.18
- Insufficient use of int. standards: 2.12
- Need to report to too many different entities: 2.03
- Insufficient use of ICT: 0.92

Source: Nathalie de Basaldua, European Commission, DG FISMA
What does the market suggest?

### Ways to simplify and streamline supervisory reporting

<table>
<thead>
<tr>
<th>Issue</th>
<th>Short term (2 years or less)</th>
<th>Long term (more than 2 years)</th>
<th>Don't know / not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction of the number of data elements</td>
<td>68%</td>
<td>24%</td>
<td>8%</td>
</tr>
<tr>
<td>Clarification of the content of the data elements</td>
<td>57%</td>
<td>28%</td>
<td>15%</td>
</tr>
<tr>
<td>Greater alignment of reporting requirements</td>
<td>44%</td>
<td>42%</td>
<td>14%</td>
</tr>
<tr>
<td>Ensuring interoperability</td>
<td>27%</td>
<td>50%</td>
<td>23%</td>
</tr>
<tr>
<td>Greater standardisation/use of international standards</td>
<td>26%</td>
<td>47%</td>
<td>28%</td>
</tr>
<tr>
<td>Greater automation of the reporting process</td>
<td>21%</td>
<td>61%</td>
<td>18%</td>
</tr>
<tr>
<td>Development of a common financial language</td>
<td>18%</td>
<td>58%</td>
<td>24%</td>
</tr>
<tr>
<td>Greater use of ICT</td>
<td>10%</td>
<td>55%</td>
<td>34%</td>
</tr>
</tbody>
</table>

Source: Nathalie de Basaldua, European Commission, DG FISMA
Opportunities

SAME LEVEL OF MONITORING AT LOWER COMPLIANCE COST

Source: Peter van den Hul, European Commission, DG FISMA
In order to safeguard the stability of the European Union’s financial system, reporting burden must be contained by striving for a “report once” principle, which will lead to more efficient reporting of financial data, more efficient monitoring of the financial system (banks, insurance companies, and financial markets) and better risk assessment by Supervisory Authorities.

For this, it’s necessary to first centrally “define once” the contents of reporting frameworks by creating one Core Supervisory Vocabulary which acts as pivotal stone and enables Regulatory Authorities to control overlaps with existing and emerging reporting frameworks in a self-improving philosophy.

Source: Peter van den Hul, European Commission, DG FISMA
How to solve the puzzle?

Source: Peter van den Hul, European Commission, DG FISMA
Scope of FDS analysis

Intermediate conclusion: regulatory measures* set the basis for 50+ “Reporting Frameworks”

LEVEL 1 MEASURES (internal refs)

LEVEL 2 MEASURES (internal refs)

Examples: CRD IV, Solvency II, AIFMD, CSDR, …

Source: Peter van den Hul, European Commission, DG FISMA
Methodology: Data Point Model

- Classification of business properties describing a data point
- Data-centric, multi-purpose methodology (transactions, payments, securities, reporting, statistics, supervision)
- Developed by business experts
- Collaborative building of a single dictionary
- Open, technology-neutral, free methodology
- Allows search, comparison and query across data requirements
- Used by ECB, EIOPA, EBA, BoE, SRB and other
- Ready for databases with open SQL models available
- Links data to law (regulations, policies, forms)
- Proposed as ISO standard under TC 68
- Interoperable with ISO 20022, XBRL, SDMX, JSON, SQL, XLS
- Enabling FinTech / RegTech (JSON, APIs)
- Allows Business Intelligence based on cubes of data
- Improves data quality and accuracy
Early results of the FDS Project

FDS early results

<table>
<thead>
<tr>
<th></th>
<th>Automated process</th>
<th>Manual analysis</th>
<th>After reconciliation</th>
<th>After reconciliation (update)*</th>
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<tbody>
<tr>
<td>SOLVENCY2 – CRR/CRD IV</td>
<td>3'713</td>
<td>400</td>
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<td>MIFIR – Transparency Directive</td>
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<td>MIFIR – EMIR</td>
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<td>SOLVENCY2 – EMIR</td>
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<td>3</td>
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<td>SOLVENCY2 – MIFIR</td>
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<tr>
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<tr>
<td>TOTAL</td>
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</table>

* Update – This step assumes that the contextual data like „Trading venue“ or „Currency“ is outside of the scope of candidates for reporting obligation overlaps.

Number of potential overlaps identified during the assessment

Source: Nathalie de Basaldua, European Commission, DG FISMA
Observations of FDS Project

- Often, definitions are slightly different between legal measures

<table>
<thead>
<tr>
<th>Naming in the legal act</th>
<th>Document name</th>
<th>Article</th>
<th>Paragraph</th>
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</thead>
<tbody>
<tr>
<td>Non-financial entity</td>
<td>DELEGATED REGULATION (EU) .../... on the application of position limits to commodity derivatives</td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

“If something appears the same, how do we know it really is?”

Source: Nathalie de Basaldua, European Commission, DG FISMA
# Observations of FDS Project

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Frequency according to legal act</th>
<th>Framework</th>
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<tbody>
<tr>
<td><strong>Annually</strong></td>
<td>CRR/CRD IV</td>
<td></td>
</tr>
<tr>
<td>Annually</td>
<td>EMIR</td>
<td></td>
</tr>
<tr>
<td>Annually</td>
<td>MiFID II / MiFIR</td>
<td></td>
</tr>
<tr>
<td>Annually</td>
<td>PRIIPs</td>
<td></td>
</tr>
<tr>
<td>Annually</td>
<td>Solvency II</td>
<td></td>
</tr>
<tr>
<td>Annually</td>
<td>Transparency Directive</td>
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</tr>
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<td>Annual basis</td>
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</tr>
<tr>
<td>At least an annual basis</td>
<td>MiFID II / MiFIR</td>
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<tr>
<td>At least an annual basis</td>
<td>Solvency II</td>
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<td>CRR/CRD IV</td>
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<td>EMIR</td>
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<td>At least annually</td>
<td>Solvency II</td>
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<tr>
<td>At least on an annual basis</td>
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<td>At least on an annual basis</td>
<td>MiFID II / MiFIR</td>
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<tr>
<td>At least once a year</td>
<td>MCD</td>
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<td>At least once a year</td>
<td>MiFID II / MiFIR</td>
<td></td>
</tr>
<tr>
<td>At least once every 12 months</td>
<td>MiFID II / MiFIR</td>
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<td></td>
</tr>
<tr>
<td>On an annual basis</td>
<td>Solvency II</td>
<td></td>
</tr>
<tr>
<td>Regular basis and at least annually</td>
<td>Solvency II</td>
<td></td>
</tr>
</tbody>
</table>

Source: Nathalie de Basaldua, European Commission, DG FISMA  
Observations of FDS Project

Standards referred to in the reporting frameworks...

Source: Nathalie de Basaldua, European Commission, DG FISMA
Observations of FDS Project

... and identifiers

<table>
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<th>Id</th>
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<td>3</td>
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<td>5</td>
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<td>7</td>
<td>AIVMD</td>
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<td>8</td>
<td>CSDR</td>
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<td>15</td>
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<td>16</td>
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<td>19</td>
<td>EvECoEr</td>
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<td>21</td>
<td>European Social Entrepreneurship Fund Regulation (EuSEF)</td>
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<td>22</td>
<td>Packaged retail and insurance-based investment products (PRIIPs) Regulation</td>
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<td>28</td>
<td>Short Selling Regulation (SSR)</td>
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<td>30</td>
<td>BRAD</td>
<td>Yes</td>
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<td>31</td>
<td>UCITS (IV) Directive</td>
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<td>32</td>
<td>UCITS (VI) Directive</td>
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<td>Motor Insurance Directive</td>
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<td>MGD</td>
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<td>Credit Rating Agencies Regulation/Directive (CRA/CRAD)</td>
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<td>38</td>
<td>OOS Directive, new</td>
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<td>Market Abuse Regulation/Directive (MAR/MAD)</td>
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<td>48</td>
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</table>

Source: Nathalie de Basaldua, European Commission, DG FISMA
Know Your Data

- Understand
- Identify & Classify
- Trace & Link to Source
- Standardise & Prove
- Make Accessible
- Make Interoperable
Thank you

Contact: michal.piechocki@br-ag.eu
François Laurent
DG Market Infrastructure & Payments
European Central Bank

Eurosystem Collateral Management System (ECMS)

ABMF meeting - Fukuoka
19 June 2018
**Fundamental drivers of the Eurosystem**

- Key function of Eurosystem market infrastructures: Ensure the exchange of securities, collateral and liquidity between financial market counterparties
- Liquidity: the fuel to effectively facilitate the exchange

---

**Diagram: Eurosystem Collateral Management System**

- **Sectors**:
  - Securities Settlement
  - Central Bank Money Settlement
  - Central Bank Collateral Management

- **Focus**: ECMS
Currently, there are **19 different local systems** used for managing eligible assets mobilised as collateral in Eurosystem monetary policy operations.

With the ECMS, there will be a **single system** for managing those assets as collateral in Eurosystem monetary policy operations.
**What is Eurosystem Collateral Management System?**

- A system for **managing eligible assets used as collateral** for Eurosystem credit operations.
- A **Eurosystem application** that will be used by market participants (in their role as counterparties) in a similar role as in the existing national collateral management systems.
- ECMS will include **harmonised functions** and **services**.
Harmonisation and Standardisation

• Tri-party collateral management
  – Agreement on a single harmonised triparty model for mobilising marketable assets in Eurosystem credit operations (describing business processes, workflows and messages)

• Corporate actions management
  – Information received from CSDs delivered in an harmonised way and key processes such as usage of a standardised calculation formula, handling of rounding differences, workflows for mandatory and elective CA events

• Adoption of ISO20022
  – Used for all communications (operation and reporting) between ECMS and all market participants (Counterparties, CSDs, Triparty agents)
  – Used for communication in collateral management process between market participants
# High-level planning for the realisation phase

Go-live: November 2022

<table>
<thead>
<tr>
<th>Phase</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
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<td>Specifications phase</td>
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<tr>
<td>Development and internal testing</td>
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<td>Eurosystem Acceptance Testing</td>
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<td>User Testing</td>
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<tr>
<td>Migration implementation</td>
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<tr>
<td>Stabilisation and closing</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Components and interaction with the market

ECMS Service Desk
NCB Operators
System administration
Support & Monitoring

Interfaces
Reference Data

Monetary Policy Operations
Collateral Management

Global Credit & Collateral Position
Credit Position
Collateral Position

Support Functionalities

RTGS
Credit Line updates
Payments
Standing facilities
FX Payments
Emergency foreign collateral

Foreign CBs/other NCBs

Counterparties
Collateral Instructions, position details
Collateral Instructions, collateral position

Tri Party Agents
Triparty Instructions

CSDs/T2S
Corporate actions
Settlement instructions
Autocollat support

ESCBI Applications

ECMS project – AMI-SeCo meeting
7
www.ecb.europa.eu ©
Relevant activities for ECMS counterparties

• Information on relevant ECMS functionalities will be made available timely by sharing relevant sections of the User Detailed Functional Specifications (UDFS), Connectivity Guide and/or training materials with counterparties

• Agreed harmonisation will still require timely implementation → important to monitor the progress of important ECMS actors (e.g. counterparties, CSDs, Triparty Agents)

• One year prior to the go-live, NCBs will start conducting testing activities with their counterparties to make sure they are ready for migration to the new system
In summary...

- As of the ECMS go-live, NCBs will be able to replace their current collateral management systems with the ECMS.
- The ECMS will provide a single interface (with the possibility of communication in U2A and A2A) that will be different from what NCBs might have currently in place.
- Key decision has been made for ECMS to rely on harmonised functionalities and ISO 20022 as the messaging standard.
Many thanks for your attention!

Any question?

Session 11: Legal Entity Identifier

27th ASEAN+3 Bond Market Forum
18/19 June 2018, Fukuoka, Japan

Stephan Wolf – GLEIF CEO

GLEIF unrestricted
In the wake of financial crisis, regulators worldwide acknowledged their inability to identify parties to transactions across markets, products, and regions.

The G20 called upon the FSB (Financial Stability Board) to take the lead in developing recommendations for a global LEI and supporting governance structure.

The G20 finance ministers and central bank governors and the FSB endorsed the Charter of the LEI Regulatory Oversight Committee (LEI ROC).

The Global LEI Foundation (GLEIF) was established as a not-for-profit organization overseen by the ROC to act as the operational arm of the Global LEI System.

*See: Creating a Linchpin for Financial Data: The Need for a Legal Entity Identifier*
The Legal Entity Identifier (LEI)

LEI is the linchpin that connects the dots across the universe of entity identification in the digital age

- 20-digit, alpha-numeric code based on the ISO 17442 standard developed by the ISO

- Connects to key reference information that enables clear and unique identification of legal entities participating in financial transactions
Information Available with the LEI:
Data on ‘Who is Who’

Global Legal Entity Identifier Foundation
Basel, Switzerland

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<th>Entity details</th>
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</tr>
</thead>
<tbody>
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- **RA000548**
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  - CHE200959865

Validation against 660 selected global registration authorities and standardized legal forms

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<td>Legal</td>
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Registration details:

- Initial Registration Date: 2018-03-16
- Last Update Date: 2018-03-16
- Registration Status: FULLY_CORROBORATED
- Validation Source: 5067009E1Q29325GK363
- Validation Authority ID: RA000548
- Validation Authority Entity ID: CHE200959865

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Information Available with the LEI:
Data on ‘Who owns Whom’

- Starting 1 May 2017, the LEI data pool is enhanced to include information on ‘who owns whom’.
- This allows the identification of direct and ultimate parents of a legal entity and, vice versa, so that the entities owned by individual companies can be researched.

**Common Data File formats:**

Global LEI Index: Creating transparency in financial markets and for financial transactions

Only global free of charge online source that provides open, standardized and high quality legal entity reference data.

- Consists of a file of all past and current LEI records including related reference data in one repository.
- All LEI records can be easily found and accessed using the LEI search tool developed by GLEIF.
- Publicly available LEI data pool can be regarded as a global directory, which greatly enhances transparency in the global marketplace.

Global LEI Index available on the GLEIF website https://www.gleif.org
Memperkenalkan Pengenalan Badan Hukum (LEI)

Pengenalan Badan Hukum (LEI) sebagai kode alfanumerik 20 digit yang berdasarkan pada standar ISO 17442 yang dikembangkan oleh Organisasi Internasional untuk Standardisasi (ISO). Kode ini berhubungan dengan informasi utama yang memungkinkan pengidentifikasi lembaran dan unik atas badan hukum yang berpartisipasi dalam transaksi keuangan. Dengan kata lain, kumpulan data LEI yang tersedia dapat dipandang sebagai buku petunjuk global, yang membantu meningkatkan transparansi di pasar global.
1,2 million LEIs in total and raising ...
During Q4 2017, 8,000-10,400 LEIs were issued daily in some days in November and December.

New issuance has dropped after Mifid/Mifir but remains well above numbers one year ago.
Recent Developments

**Malaysia:**
- FMA and Central Bank of Malaysia announced that RENTAS (Real-time Electronic Transfer of Funds and Securities System) will be implementing segregated securities account structure mandating the use of LEI in addition to the securities account number.
- All investors investing in Malaysian debt securities are required to obtain the LEI for securities account opening and reporting purposes by **14 May 2018**.

**Hong Kong (consultation):**
- Hong Kong Monetary Authority (HKMA) and Securities and Futures Commission issued a joint consultation to mandate the use of LEI on OTC derivatives for the reporting obligation. Consultation period will end on **27 April 2018**.

Existing Rulemaking

**Hong Kong:**
- OTC Trade Repository

**Japan:**
- Financial Instruments and Exchange Act, Regulation of Over-the-Counter Derivatives Trade Reporting Obligations

**Singapore:**
- Derivatives Trade Reporting – Securities and Futures
Global LEI System Structure
The Global LEI System

1. LEI Regulatory Oversight Committee (LEI ROC):
   Represents public financial market authorities from around the world

2. Global Legal Entity Identifier Foundation (GLEIF):
   Ensures the operational integrity of the Global LEI System

3. Local Operating Units (LOUs):
   Issue LEIs to legal entities

The Financial Stability Board (FSB) and the Group of Twenty (G20) have endorsed the LEI, Global LEI System and GLEIF.
1. Global LEI System High Level Principles
2. Recommendations for the development and implementation of the Global LEI System
Objectives of the ROC

In protecting the broad public interest, the objectives of the ROC are to ensure:

- Open access to obtaining an LEI
- Open and free access to publicly available data from the Global LEI System
- No entity involved in the Global LEI System exploits its relationship with the system in a way contrary to the broad public interest
- The Global LEI System meets broad public and private sector requirements

LEI ROC members from ASEAN+3 Bond Forum region*:

- People’s Bank of China
- Hong Kong Monetary Authority
- Bank of Japan
- Financial Services Agency, Japan
- Financial Services Commission, Korea
- Bank of Korea
- Monetary Authority of Singapore

* Incluces Members and Observers. See https://www.leiroc.org/ for a listing of all members
LEI issuers – also referred to as Local Operating Units (LOUs) – supply registration, renewal and other services, and act as the primary interface for legal entities wishing to obtain an LEI.

Initial Registration and Annual Renewal

- Provides accurate legal entity reference data
- LEI issuer
- Issues a compliant LEI
- Self-registration
- Verifies via
- Local authoritative source
- Using Global LEI System standards
Additionally, challenge to LEI & LE-RD service is available via the GLEIF website. This centralized online facility is part of the GLEIF data quality management program.
Who is GLEIF

- The GLEIF is a Swiss foundation inaugurated in June 2014 and founded by the Financial Stability Board (FSB).

- GLEIF is overseen by 71 regulators and 19 observers in the Regulatory Oversight Committee (ROC) from 50 countries.

- GLEIF Board has 18 independent directors.
Who is GLEIF

GLEIF in Numbers
Budget 2018: 9.5 M USD
Funded by LEI Issuers

GLEIF in Numbers
Number of employees
34 from 19 countries

GLEIF in Numbers
Partners for LEI issuing (LOUs)
32, and growing

GLEIF in Numbers
Issued LEIs as of June 2018
Over 1,200,000
GLEIF’s Vision and Mission

**GLEIF Vision**
Ultimately, there should be one identity behind every business
Having an LEI will help to achieve this objective

**GLEIF Mission**
GLEIF manages a network of partners, the LEI issuing organizations, to provide trusted services and open, reliable data for unique legal entity identification worldwide

**GLEIF Scope**
Supra-national, non-for-profit organization
GLEIF is, by its statutes, agnostic to any particular commercial or political interests
GLEIF Core Competencies

GLEIF is the recognized and trusted partner in Identification Management for legal entities

GLEIF supplies a defined and growing range of free Value-added Services to the public and private sector

GLEIF as Accreditation Agency runs a leading quality management system for its network of LEI issuing partners
Creating Business Value with the LEI
White Paper suggests combined potential savings of at least U.S. $650m annually just in core banking

Two broad areas in which the LEI has business value:

- Reduces transactional and operational friction, both within and among organizations.

- The LEI makes important information about the background of a legal entity in a transaction more accessible and traceable.

Available on https://www.gleif.org
## LEI Use Cases and Benefits

| Capital markets | The LEI’s primary value is derived from reducing the cost of onboarding clients and of middle- and back-office activities related to the processing of stocks, bonds and other securities trades. All such activities could be simplified and streamlined if LEI use were more broadly adopted throughout the lifecycle of the client relationship.

The use of LEIs in the onboarding of customers and for client relationship would also reduce the time spent on data correction and reconciliation necessitated by inconsistent identification of legal entities. |
| Commercial transactions | LEIs enable faster processing of letters of credit and better identification for trade finance and for e-invoicing. |
| The extension of commercial credit | LEIs allow for more robust and efficient Know Your Customer (KYC) diligence on borrowers, as well as better traceability of information on borrowers from multiple sources. |
## GLEIF Strategy

<table>
<thead>
<tr>
<th>Market Segments</th>
<th>Key Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>① Derivatives</td>
<td>USA &amp; Europe, Singapore 450,000 LEIs</td>
</tr>
</tbody>
</table>
| ② Capital and Money Markets | Prospectus Directive Europe  
                          | MiFID/MiFIR  
                          | Solvency II  
                          | 1,500,000 LEIs                         |
| ③ Banking Services   | LEI in payments (correspondent banking)  
                          | LEI in credits (AnaCredit, USA mortgage act)  
                          | LEI in trade finance  
                          | Potential of 30 – 40 million LEIs       |
| ④ Supply-Chain-Management | Global reach on manufacturer, supplier, logistics and merchants supporting their Know Your Customer (KYC) and Know Your Supplier (KYS)  
                          | All industries  
                          | 40 – 50 million LEIs                   |
| ⑤ Digital Economy    | Global reach for all entities requiring a digital identity of legal entities for their transactions  
                          | Includes Industry 4.0 and Internet of Things  
                          | 50 – 100 million LEIs, up to 1 bn       |
KYC Challenge and the LEI
Strategic GLEIF Initiatives will target KYC/KYS/CRM*
Beyond Regulatory Mandate (Policy)

KYC using the LEI

- One identity behind every business (customer)
- Combination of Digital IDs based on cryptographic algorithms and LEI
- Requires regulatory support (legal)
- Core unique selling points of the GLEIS:
  - Entity validation
  - Data verification
  - Trusted, open data
  - LEI data free of charge for users

Today: Multiple ID systems

• KYC – Know Your Customer
• KYCC – Know Your Customer’s Customer
• KYS – Know Your Supplier
• CRM – Client Relationship Management
GLEIF has undertaken research with a specialist research agency, Loudhouse, to identify the key challenges of legal entity identification in financial services.

The findings form the basis for a research report from GLEIF titled ‘A New Future for Legal Entity Identification’, in which GLEIF outlines its view that replacing disjointed information with a globally accepted approach based on broad adoption of the LEI would remove complexity from business transactions and deliver quantifiable value to financial services firms.
This research explores the challenges that the banking sector faces when it comes to onboarding new client organizations, with a view to investigating, in particular, the implications of KYC regulation. The research was conducted among 102 senior salespeople in the banking sector.

Number of employees

- Under 50 employees: 35
- 50 - 99 employees: 34
- 100 - 249 employees: 33
- 250 - 499 employees: 
- 500 - 999 employees: 
- 1,000+ employees: 

Total: 102
Financial institutions use, on average, four identifiers to help identify client organizations

In order to accurately identify client organizations with the most up-to-date data, financial institutions tend to use a variety of different identifiers for cross-checks. On average they use 4 different identifiers internally, but about a third say they use 5 or more identifiers.
No single identifier has gained global acceptance

On average they use 4 different identifiers internally, but about a third say they use 5 or more identifiers.

There is no single identifier which acts as a standard for the industry. However several are used by a substantial proportion of organisations.

**Identifiers used**

- ISO BIC – International Organization for Standardization business identifier code: 45%
- FDIC Certificate ID – Federal Deposit Insurance Corporation: 44%
- Global LEI System – Legal Entity Identifier: 43%
- RSSD ID – Replication Server System Database (assigned by the Federal Reserve Bank): 35%
- CUSIP – Committee on Uniform Security Identification Procedures: 34%
- Internal IDs: 33%
- Thomson Reuters – Perm ID: 31%
- SEC CIK – Securities and Exchange Commission, Central Index Key: 31%
- Other vendor IDs: 15%
- DUNS ID: 12%
- Other: 1%

Average of 4 identifiers used
Onboarding is a burdensome and time-consuming process

New clients typically take 6 weeks to onboard – more if 4+ identifiers are used. A quarter of the process involves manual tasks and 6 in 10 senior salespeople spend more than 1.5 days of their week onboarding.

<table>
<thead>
<tr>
<th>Number of identifiers used</th>
<th>Total</th>
<th>1-3</th>
<th>4+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to onboard a new client organization (weeks)</td>
<td>6</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Spend more than 1.5 days a week doing onboarding-related activities</td>
<td>57%</td>
<td>53%</td>
<td>61%</td>
</tr>
</tbody>
</table>

49% agree
Middle and back-office activities related to onboarding are a major burden

On average 25% of the onboarding process involves manual tasks

48% agree
It is extremely difficult to quantify the exact cost of onboarding
Long on-boarding processes can lead to loss of business

- **Transaction is rejected** because not enough information is known about the legal identity of the counterpart (14%)
- **Legal entity leaves** because onboarding process is too difficult / takes too long (15%)

55% agree

Prospects might turn to competitors if it takes too long to onboard them as new client organisations.
Going forward, legal entity onboarding will incorporate...

- Digital Signatures: 51%
- Digital Certificates: 46%
- KYC Utilities Based on Blockchain Technology: 50%
Institutions are facing an increasing burden as a result of the need to comply with KYC

Lack of reliable and consistent identifiers is creating more work and less certainty

There is clearly an opportunity to align on one identifier to generate efficiencies
Outlook
Partner Projects with Standards Organizations

<table>
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<tr>
<th>Complete</th>
<th>Complete</th>
<th>2018</th>
<th>Ongoing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxonomy</td>
<td>Mapping Program</td>
<td>Issuer</td>
<td>Global Partner</td>
</tr>
<tr>
<td>XBRL</td>
<td>SWIFT</td>
<td>ANNA</td>
<td>GS1</td>
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<tr>
<td>ISO BIC 9362</td>
<td>ISO ISIN 6166</td>
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Digital Age – Information Age

Digital Age – Information Age
Requires Identity Management

Intelligent Devices & Connectivity

IT → Web → eCommerce → Mobile Web → Internet of Things
Outlook: Integration of the LEI with Digital Certificates and Seals

- Electronic seal based on the ITU X.509 standard means cryptographically secured data in electronic form, which is attached to or logically associated with other data in electronic form to ensure the latter’s origin and integrity.

- Electronic seals should serve as evidence that an electronic document was issued by a legal person, ensuring certainty of the document’s origin and integrity.

- The electronic seal is a promising tool to tackle the increasing document forging issues across globe.

- The integration of the LEI into the Digital Certificates and seals would significantly enhance the trust of the documents and encourage a large volume of transactions.

- Examples of such processes include the processing of e-invoices or the delivery of digital pay slips.
Digital Identity – a Proposal

- The LEI as part of a digital certificate would bind the identity to the actual individual or group of individuals.

- Transactions signed with such a certificate could be unambiguously tracked back to the originator (in finance: counterparty identification, KYC, AML).

- Validation and verification of individuals or groups need to be done anyway, but then only once, and not multiple times, as it is today. Use existing standards.

- Blockchain / distributed ledger should consider these digital certificates and the underlying standards (X.509).

- A distributed ledger could be used to manage digital certificates.

GLEIF Vision

Each business worldwide should have only one true identity.
This identity should include a digital identity.
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