# Asia-Pacific Financial Forum
# Interim Report to the APEC Finance Ministers

## ANNEXES

Asia-Pacific Financial Forum

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## ANNEX A

## List of Participating Institutions

**Participating Institutions (as of 16 July 2014)**

| | |
|---|---|
| IRI | Insurance and Retirement Income Work Stream |
| TSF | Trade and Supply Chain Finance Work Stream |
| LI | Lending Infrastructure Work Stream |
| FMI | Financial Market Infrastructure and Cross-Border Practices Work Stream |
| CM | Capital Markets Work Stream |
| LSI | Linkages and Structural Issues Group |
| LGL | Legal Experts Network |
| | *IO = International public sector organization; *IIA = International industry association<br>Some institutions listed here that are not actively involved in individual work streams participate in general APFF activities. |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| HKG | 1. AIA Group | IRI | | | | | | |
| AUS | 2. ANZ Bank | | | | FMI | | | |
| *IO | 3. APEC Policy Support Unit | | TSF | | | | | |
| *IO | 4. APEC Secretariat | | | | | | | |
| *IIA | 5. ASEAN Bankers' Association | | TSF | | | CM | | |
| *IIA | 6. ASEAN Insurance Council | IRI | | | | | | |
| *IO | 7. ASEAN Secretariat | IRI | | | | | | |
| CHN | 8. All Win Credit | | | LI | | | | |
| *IIA | 9. Asociación de Aseguradores de Chile | IRI | | | | | | |
| MAL | 10. AmBank Group | | TSF | | | | | |
| MAL | 11. AmInvestment Bank | | TSF | | | | | |
| *IIA | 12. Asia Securities Industry & Financial Markets Association (ASIFMA) | IRI | | | FMI | CM | | |
| *IIA | 13. Asia-Pacific Credit Coalition/Policy and Economic Research Council | | | LI | | | | |
| *IO | 14. Asian Development Bank | IRI | TSF | | FMI | CM | | |
| *IO | 15. Asian Development Bank Institute | | | | | | LSI | |
| *IIA | 16. Asociación Latinoamericana de Instituciones Financieras para el Desarrollo | | | | | | | |
| *IIA | 17. Association of Development Financing Institutions in Asia and the Pacific | | TSF | LI | | | | |
| *IIA | 18. Association of Insurance Supervisory Authorities of Developing Countries | IRI | | | | | | |
| *IIA | 19. Association of Insurers and Reinsurers of Developing Countries | IRI | | | | | | |
| AUS | 20. Australian APEC Study Centre at RMIT University | IRI | | | | | LSI | |
| AUS | 21. Australian Financial Markets Association | | | | FMI | CM | | |
| AUS | 22. AustralianSuper | IRI | | | | | | |
| AUS | 23. Australian Treasury | IRI | | | | | | |
| *IIA | 24. BAFT-IFSA | | TSF | | | | | |
| CHL | 25. Banco de Chile | | | | | | | |
| BND | 26. Bank Islam Brunei Darussalam Berhad | | | | | | | |
| MAL | 27. Bank Negara Malaysia | | | LI | FMI | | | |
| *IO | 28. Bank for International Settlements | | | | FMI | | | |
| CHN | 29. Bank of China | | | LI | | | | |
| USA | 30. Bank of New York Mellon | | | | FMI | | | |
| THA | 31. Bank of Thailand | | | | FMI | | | |
| *IIA | 32. Bankers' Association for Finance and Trade (BAFT) | | TSF | | | | | |
| SIN | 33. Barclays | | | | FMI | CM | | |
| USA | 34. Barnert Global Ltd. | IRI | | | | | | |
| JPN | 35. Bingham Sakai Mimura Aizawa | | TSF | LI | | CM | | LGL |
| SIN | 36. BlackRock | | | | FMI | CM | | |
| HKG | 37. CFA Institute | | | | | CM | | |
| HKG | 38. CLP Holdings | | | | | CM | | |
| AUS | 39. CLS Bank Group | | | | FMI | | | |
| CHN | 40. CRIF Information Technology Services Co., Ltd. | | | LI | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CAN | 41. | Canada Pension Plan Investment Board Asia (Hong Kong Office) | IRI | | | | | | |
| TAI | 42. | Cathay Holdings | | | | | CM | | |
| TAI | 43. | Cathay Life Insurance | IRI | | | | | | |
| INA | 44. | Center for Strategic and International Studies (CSIS) | | TSF | | | | | |
| USA | 45. | Charles Schwab | | | | FMI | | | |
| CHN | 46. | China Association of Microfinance | | | LI | | | | |
| CHN | 47. | China Association of Warehouses and Storage | | | LI | | | | |
| HKG | 48. | Citi | IRI | TSF | | | CM | | |
| HKG | 49. | Clifford Chance | | | | | CM | | |
| NDL | 50. | Control Union World Group | | | LI | | | | |
| AUS | 51. | Corrs Chambers Westgarth | | | | | | | |
| *IO | 52. | Credit Guarantee & Investment Facility | | | | | | | |
| PHI | 53. | Credit Information Corporation | | | LI | | | | |
| CHN | 54. | DHgate.com | | TSF | | | | | |
| CHN | 55. | Davis Wright Tremaine | | | LI | | | | |
| HKG | 56. | Deloitte Touche Tohmatsu | | | | | CM | | |
| HKG | 57. | Deutsche Bank AG | | | | | CM | | |
| SIN | 58. | Deutsche Bank AG, Filiale Singapur | | TSF | | FMI | CM | | |
| HKG | 59. | Ernst & Young | | | | | CM | | |
| BEL | 60. | Euroclear Bank | | | | FMI | | | |
| USA | 61. | Experian | | | LI | | | | |
| USA | 62. | Fidelity Investments | | | | | | | |
| *IO | 63. | Financial Stability Board | | | | | | | |
| HKG | 64. | Fung Global Institute | | | | | | LSI | |
| USA | 65. | GE Capital | | TSF | LI | | | | |
| HKG | 66. | GT Nexus | | TSF | | | | | |
| USA | 67. | Goldman Sachs | | | | FMI | CM | | |
| SIN | 68. | Great Eastern Life Assurance Company | IRI | | | | | | |
| AUS | 69. | Gresham Partners Limited | | | | | | | |
| HKG | 70. | HSBC | | TSF | | FMI | CM | | |
| HKG | 71. | Hong Kong Interbank Clearing Limited | | | | FMI | | | |
| HKG | 72. | Hong Kong APEC Trade Policy Study Group | IRI | | | | | | |
| CHN | 73. | Huaxia Dun & Bradstreet | | | LI | | | | |
| AUS | 74. | IAG | IRI | | | | | | |
| INA | 75. | Indonesia Financial Services Authority (OJK) | IRI | | | | | | |
| CHN | 76. | Industrial and Commercial Bank of China | | TSF | | | | | |
| SIN | 77. | ING Bank Singapore | IRI | | | | | | |
| JPN | 78. | Institute for International Monetary Affairs | | | | | | LSI | |
| *IO | 79. | Inter-American Development Bank | | | | | | | |
| *IIA | 80. | International Chamber of Commerce | | TSF | | | | | |
| *IIA | 81. | International Factors Group | | TSF | LI | | | | |
| *IO | 82. | International Finance Corporation | | TSF | LI | | | | |
| *IIA | 83. | International Insurance Society | IRI | | | | | | |
| *IO | 84. | International Monetary Fund | | | | | CM | LSI | |
| *IIA | 85. | International Swaps and Derivatives Association (ISDA) | | | | | CM | | |
| *IIA | 86. | International Valuation Standards Council (IVSC) | | | | | CM | | |
| USA | 87. | JP Morgan Chase | | TSF | | FMI | CM | | |
| JPN | 88. | Japan Securities Dealers Association (JSDA) | | | | FMI | CM | | |
| HKG | 89. | Jardine Matheson Limited | IRI | | | | | | |
| AUS | 90. | KPMG | | | | | | LSI | |
| *IIA | 91. | Latin American Banking Federation (FELABAN) | | | | | | | |
| JPN | 92. | Linklaters | | | | | CM | | LGL |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| HKG | 93. Manulife Asset Management | IRI | | | | | | |
| USA | 94. Marshall School of Business, Univ of Southern California | | | | | | LSI | |
| JPN | 95. MetLife | IRI | | | | | | |
| VNM | 96. Ministry of Justice, Vietnam | | | LI | | | | |
| INA | 97. Ministry of Law and Human Rights, Indonesia | | | LI | | | | |
| HKG | 98. Moody's Asia Pacific Limited | | | | | CM | | |
| KOR | 99. NICE Information Service | | | LI | | | | |
| CAM | 100. National Bank of Cambodia | | | LI | | | | |
| VNM | 101. National Credit Information Center | | | LI | | | | |
| JPN | 102. Nippon Life Insurance Company | IRI | | | | | | |
| JPN | 103. Nishimura & Asahi | | | | | | | LGL |
| JPN | 104. Nomura | IRI | TSF | LI | FMI | CM | | LGL |
| *IO | 105. OECD | IRI | | | | | | |
| HKG | 106. PIMCO Asia | IRI | | | | | | |
| INA | 107. PT Bank BNI | | | | | | | |
| SIN | 108. Pacific Economic Cooperation Council | | | | | | | |
| CHN | 109. People's Bank of China Credit Reference Center | | | LI | | | | |
| CHN | 110. People's Bank of China Institute of Finance | | | LI | | | | |
| SIN | 111. Pramerica Financial Asia | IRI | | | | CM | | |
| HKG | 112. PricewaterhouseCooopers | | | | | CM | | |
| HKG | 113. Prudential Corporation Asia | IRI | | | | | | |
| CHN | 114. Renmin University of China | | | LI | | | | |
| HKG | 115. Royal Bank of Scotland | | | | FMI | | | |
| *IIA | 116. SWIFT | | TSF | | FMI | CM | | |
| KOR | 117. Samsung Life Insurance | IRI | | | | | | |
| CHN | 118. Shanghai Advanced Institute of Finance | | | LI | | | | |
| SIN | 119. Singapore Business Federation | | TSF | | | | | |
| HKG | 120. Standard Chartered Bank | | TSF | LI | FMI | CM | | |
| SIN | 121. State Street | | | | FMI | CM | | |
| HKG | 122. Sun Life Financial Asia | IRI | | | | | | |
| JPN | 123. The Bank of Tokyo-Mitsubishi UFJ | | TSF | | | | | |
| THA | 124. The Thai Bankers' Association | | | | | | | |
| *IO | 125. The World Bank | | | | FMI | CM | LSI | |
| JPN | 126. Tokio Marine Holdings Inc. | IRI | | | | | | |
| AUS | 127. Tramada Systems | | | | | | | |
| USA | 128. TransUnion | | | LI | | | | |
| USA | 129. US National Center for APEC | | | | | | | |
| USA | 130. University of Hawai'i, William S. Richardson School of Law | | | | | CM | | |
| AUS | 131. University of Melbourne | | | | | | LSI | |
| USA | 132. Visa Worldwide Pte Ltd | | | | FMI | | | |
| INA | 133. WanaArtha Life | IRI | | | | | | |
| HKG | 134. Wheelock and Company Limited | | TSF | | | | | |
| SIN | 135. YCH Group | | TSF | | | | | |
| CHN | 136. Zhong Lun Law Firm | | | LI | | | | |
| PNG | 137. 2G Development Co. Ltd. | | | | | | | |

**Asia-Pacific Financial Forum**

# Interim Report to the APEC Finance Ministers

## ANNEX B

## Repo Best Practice Guide for Asian Markets

Asia Securities Industry & Financial Markets Association

# Developing a Repo Best Practice Guide for Asian Markets

## Content

- Why repo markets matter to the real economy
- Role of repo markets in capital market development
- Overview of a classic repo transaction
- Types of repurchase transactions
- Classic repos: Bilateral vs. Tri-party
- Role of collateral in repo transactions
- Necessary conditions to grow regional repo market
- Current market dynamics in some ASEAN + 3 jurisdictions
- Market infrastructure considerations
- Importance of repo documentation
- Default protections and insolvency regimes
- Addressing policy & market constraints to developing a regional repo market

Annexure:

- Table I: Key issues and recommendations
- Table II: Comparison of bilateral and tri-party repo
- Table III: Eligible bonds and trading term structures
- Table IV: Comparative table on market openness for foreign investors
- Additional resource I: ICMA "ERC Guide to Best Practices in European Repo Market," March 2014
- Additional resource II: Euroclear, "Understanding Repos and Repo Markets," March 2009
- Additional resource III: Ryuichi Shiina of Japan Securities Dealers Association, Working document, "Enhanced Comparative Analysis of Repo Markets in 9 ASEAN + 3 Countries & Jurisdictions."

# Why Repo Markets Matter to the Real Economy

A more open and accessible local currency (LCY) bond market, coupled with a more active repo (repurchase) market, would improve access to finance and support the real economy.

In particular, efficient, liquid "classic" repo markets support the real economy in the following ways:

1. Repos help establish a benchmark yield curve, which:
    a) Improves price discovery and transparency across long- and short-term securities;
    b) Facilitates pricing and valuation of corporate and infrastructure bonds; and
    c) Provides the foundation upon which bond futures and credit markets may grow.
2. Repos help support access to capital market financing for a broad range of investors and end users by:
    a) Reducing funding costs for governments, pension funds, asset managers and other long-term investors;
    b) Reinforcing longer-term investment and mitigating volatility;
    c) Developing market infrastructures that are necessary to serve the real sector; and
    d) Enhancing the ability of foreign investors to finance domestic assets (onshore and offshore).
3. Repos deepen liquidity in primary and secondary bond markets by:
    a) Broadening investor participation;
    b) Improving investor confidence by ensuring bonds can be sold in secondary markets with minimal impact on the selling price; and
    c) Offering hedging tools which contribute to risk management.

*Sources: Fung Global Institute and Oliver Wyman, "Asia Finance 2020: Framing a New Asian Financial Architecture;" Nick de Boursac, "Government Bond Secondary Market Liquidity: Seven Basic Requirements," February 2012.*

## Role of Repo Markets in Capital Market Development

Deep, liquid classic repo markets are important for the functioning of global capital markets by facilitating market making that provides liquidity in secondary bond markets.

Repo markets serve as a critical component of capital market development by:

- Improving investor appeal and broadening investor participation;
- Providing access to alternative means to meet financing needs;
- Decreasing dependence on bank funding in Asia;
- Deepening liquidity in bond markets, which in turn enhances institutional investment in long term assets such as infrastructure; and
- Allowing the use and re-use of excess collateral, thereby deepening the pool of available finance.

Integrating regional bond and repo markets by establishing a cross-border repo market in Asia would:

- Improve access to funding pools across the region;
- Encourage retention of Asian savings and investment in the region by improving cross-border mobility of assets;
- Reduce reliance on USD funding and liquidity, and thereby improve macroeconomic stability in the region; and
- Help mobilize needed collateral to counter the adverse effects of increased asset encumbrance driven by regulatory change (such as Basel III, new asset segregation rules, and central clearing mandates, among others).

*Sources: Fung Global Institute and Oliver Wyman, "Asia Finance 2020: Framing a New Asian Financial Architecture;" Nick de Boursac, "Government Bond Secondary Market Liquidity: Seven Basic Requirements," February 2012.*

## Overview of a Classic Repo Transaction

Repos are the most widely used form of secured financing transactions and are mainly used to meet financing needs of banks and broker/dealers, the widest *users* of repo

Asset management companies (and other institutional investors) are typically the most active *providers* of liquidity in repo markets

In a classic repurchase transaction, one party sells securities to a counterparty, and simultaneously commits to repurchase the same or equivalent securities at an agreed future date.

Typically, the "seller" is the bank, or financial institution (FI) that needs cash; and the "buyer" is the institutional investor, or FI that provides cash in exchange for collateral.

Between the sale and the repurchase dates:

- The seller is able to use the cash proceeds of the sale of the assets; and
- The buyer takes legal ownership of the assets received in exchange for the cash it has paid.

*Sources: ICMA "ERC Guide to Best Practices in European Repo Market," March 2014; and Euroclear, "Understanding Repos and Repo Markets," March 2009*

# Types of Repurchase Transactions*

**Classic repurchase transactions – or "classic repos"**

- A classic repo is a secured financing transaction in which cash is exchanged for collateral, usually in the form of bonds or other securities.
- Importantly, repo collateral is not pledged, like traditional collateral, but sold and then repurchased at maturity.
- Provide *full ownership transfer* of collateral, affording the lender stronger control over the collateral, and enables the lender to use those assets or net them against the amount owed to them by the seller, if the seller defaults.
- The substitutability of collateral assets (i.e. whether the same assets or "economically equivalent" assets are repurchased on the repurchase date) should be stipulated in the repo contract before execution
- Both legs of the contract are stipulated in a single contract (see "Importance of Repo Documentation," slide 13)

**Buy-and-sell backs**

- Have the same function as "classic" repos, however they have legal and operational differences
- Principal difference: Repurchase agreements are always documented, but traditional buy/sell-backs are not
- Undocumented buy-and-sell backs may have serious pricing issues due to differences in mark-to-market conventions and margin call timing, which increases the riskiness of these transactions

**Pledge model**

- Establishes priority right over the collateral; however other parties may have higher ranking rights over the collateral which may not always be transparent
- Rights to use collateral tend to be limited
- Pledge models may also be more complicated than classic repos in terms of administration and execution of collateral

**Note: In some Asian jurisdictions, such as Japan, a "borrow and lend" repo structure has emerged, in part in response to transaction taxes that deter development a "classic" repo structure.*

*Sources: ICMA "ERC Guide to Best Practices in European Repo Market," March 2014; and Euroclear, "Understanding Repos and Repo Markets," March 2009*

## Types of Classic Repos

**Classic repos – Bilateral vs. Tri-Party**

- Tri-party repos reduce counterparty and operational risk by having a centralized repo intermediary through which all transactions are margined
- Repo documentation between buyer and seller is executed in the usual manner, although adapted for the role of the tri-party agent. Parties will also enter into an agreement with the tri-party agent to agree on collateral management services to be provided
- Tri-party agents undertake the operational processes of managing and valuing collateral (including mark-to-market valuations and meeting margin calls) on a more granular basis than what would be operationally feasible on a bilateral basis
- Settlement and delivery fails are more easily resolved in a tri-party platform versus a bilateral platform
- Tri-party agents enhance settlement efficiency by integrating their collateral management systems with their settlement platforms, which allows for automated substitution of collateral
- Understanding the credit risk of a tri-party repo provider, as well as their asset segregation and portability policies, is key to effective risk management in tri-party repo markets

*Sources: ICMA "ERC Guide to Best Practices in European Repo Market," March 2014; and Euroclear, "Understanding Repos and Repo Markets," March 2009*

## Role of Collateral in Repo Transactions

The exchange of collateral protects the buyer from the risk of a seller default in the repo transaction

**Importance of collateral:**

- The provision of collateral is key to hedging the credit exposure of the seller in the repo transaction
- The buyer holds assets as collateral, the value of which can be netted against the amount owed to the buyer by the seller, if the seller defaults.

**Importance of usage rights:**

- Since the buyer owns the collateral assets (in a classic model), the buyer can use them during the term of the repo by: (i) selling the assets outright; (ii) repoing them; or (iii) pledging them to a third party.
- The buyer must reacquire the assets by the end of the repo, in order to be able to sell them back to the seller.
- The right to use collateral plays an important role in deepening market liquidity because it:
  - extends collateral chains;
  - increases secondary market trading; and
  - lengthens the yield curve, which will help develop pricing benchmarks and local currency bond markets.

*Source: Euroclear, "Understanding Repos and Repo Markets," March 2009*

# Necessary Conditions to Grow Regional Repo Market

**Legal & regulatory issues**

- Legal certainty about the right to the title of assets and the right to net in the event of counterparty default is a vital cornerstone of classic repo transactions
- Bankruptcy and resolution framework must protect creditors' rights in insolvency cases for consistency and enforceability of repo contracts
- Market access for foreign investors

**Tax treatment**

- Exemption from withholding and transaction taxes for repo market participants
- Elimination of stamp duties

**Depth of liquidity in regional bond markets**

- Availability of pricing data
- Robust bond market and bond yield curve, which is enhanced by the establishment of a repo market
- Need to establish regional index rate, such as Japanese and Aussie dollar overnight rates
- Large participation from institutional investors in the region, as they are the traditional providers of repo market funding

**Market infrastructure**

- Links to ICSDs and CSDs
- Interoperability between regional payment and settlement systems
- Improved cross-border settlement processing and timing through STP

**Currency barriers and exchange rate volatility**

- Prohibition of offshore FX trading for investment
- Assured currency convertibility and repatriation rights

*Sources: Ryuichi Shiina, Japan Securities Dealers Association, "Enhanced Comparative Analysis of Repo Markets in 9 ASEAN + 3 Countries & Jurisdictions," 15 April 2014; ICMA Repo Margining Best Practices, March 2014 and Euroclear, "Understanding Repos and Repo Markets," pages 25-27, March 2009.*

## Current Repo Market Dynamics in some ASEAN + 3 Jurisdictions*

| | **Sale & purchase (Classic or buy and sell backs), borrow & lend, and pledge** | **Sub-categories:**<br>-Special collateral (SC) and General collateral (GC)<br>-Bilateral vs. Tri-party repos<br>-Other distinctions | **OTC vs. Exchange** | **Restrictions on foreign participation** |
|---|---|---|---|---|
| China | Pledged repo (mainly) | N/A | OTC (mainly) and exchange | Y |
| Hong Kong | Classic repo | N/A | OTC (mainly) and exchange | N |
| Japan | Borrow & lend (mainly), also classic repo (*Gensaki* market) | GC and SC repos (Tri-party repo under consideration) | OTC | N |
| Korea | Classic repo | Distinctions between institutional, customer and Central Bank repos | OTC (mainly) and exchange | N |
| Indonesia | Buy/Sell-back (mainly) & Classic repo | GC and SC repos | OTC | Y |
| Malaysia | Classic & Buy/Sell-back | N/A | OTC | N/A |
| Philippines | Classic repo | Tri-Party Repo | Exchange (PDEx) | N/A |
| Thailand | Classic repo (mainly) | Distinction between bilateral repo and private repo | OTC | Y |
| Vietnam | Classic repo | N/A | OTC and Exchange | Y |

*Source: Ryuichi Shiina of Japan Securities Dealers Association's working document for the ABMF, "Enhanced Comparative Analysis of Repo Markets in 9 ASEAN + 3 Countries & Jurisdictions," 15 April 2014.*

## Market Infrastructure Considerations

Market infrastructures need to be strengthened and integrated to support cross-border repo markets, for example by:

- Building links to ICSDs so government bonds can be delivered and held at the ICSDs easily
- Linking CSDs in ASEAN + 3 to utilize central bank money
- Establishing cross-border links between securities settlement systems (SSS)
- Linking SSS with a central-bank operated payment system in another country

In addition, harmonizing message flows will improve cross border settlement and reconciliation, which can be improved by:

- Using DVP models for both government and corporate bond settlement
- Standardizing message format related to bond settlement (e.g. ISO 15022/20022, etc.)
- Developing a common rule on data standards and transaction identifiers (e.g. ISIN, etc.)

*Sources: ICMA "ERC Guide to Best Practices in European Repo Market," March 2014; and N. de Boursac Summary of recommendations for Indonesian Government Bond market development*

## Importance of Repo Documentation

In order to minimize legal risks in repo transactions, it is best practice to ensure proper documentation underpins all repo transactions before they are executed.

To decrease the operational burden of managing diverse repo contracts, the Global Master Repurchase Agreement has emerged as the international standard for cross-border repo markets.

**Global Master Repurchase Agreement (GMRA) is:**

- Standardized repo documentation; and
- Supported by annually-updated legal opinions (link below) in respect of over 60 jurisdictions.

**Main features of GMRA include:**

- Netting rights in the event of counterparty default
- Operational processes (such as margining and manufactured payments)
- 'Events of default' & consequent rights and obligations of counterparties
- Failure to Deliver provisions
- Early Termination Rights
- Netting and close-out provisions
- Transfer of legal title, margin, collateral, among others
- Management of coupon and other payments on collateral

**Enforceability of GMRA is determined by:**

- Recognition of repo structures and contracts and the legal agreements that underpin them (e.g. GMRA) in member jurisdictions
- Arbitration clauses for cross-border transactions
- Rule of law

*Sources: ICMA GMRA Legal opinions, http://icmagroup.org/Regulatory-Policy-and-Market-Practice/short-term-markets/Repo-Markets/GMRA-Legal-opinions; and ICMA Repo Margining Best Practices, March 2014*

## Default Protections & Insolvency Regimes

The 2011 GMRA provides protections against counterparty default, which contributes to risk management

**Failure to Deliver Collateral versus Event of Default:**

- Under GMRA, a failure by either party to deliver collateral is ***not*** an automatic event of default, so the non-defaulting party is required to serve a Default Notice in order to trigger a default
- If the non-defaulting party chooses not to serve a Default Notice, the defaulting party should endeavour to deliver margin at the earliest opportunity

**Event of Default protocol:**

- Receipt of a Default Notice will trigger all transactions to be terminated (closed out) and their Repurchase Dates accelerated for immediate settlement.
- The net present value of the obligations owed to the defaulting party are then netted (set off) against the net present value of obligations owed by the defaulting party to leave a residual net amount.

**Mini-close outs:**

- In the event that a buyer has failed to deliver equivalent collateral on the repurchase date, a seller may trigger a mini-close out.
- Seller must provide advisory note to the buyer ASAP on the same day as the fail or the morning of the next business day
- Seller ought to accept partial delivery of the equivalent securities from the buyer

*Source: ICMA Repo Margining Best Practices, March 2014*

## Addressing Policy & Market Constraints to Developing a Regional Repo Market

## Key Issues to Address in Developing a Cross-Border Repo Market

1. Move towards a "classic repo" market in participating jurisdictions, as the full legal ownership title of collateral:
    - Affords the buyer rights to use assets, which improves market depth; and
    - Offers the buyer netting rights in the event of a counterparty default, which eases the process of resolving settlement and delivery fails.
2. Consider moving towards a tri-party platform, which may reduce counterparty and operational risk, and improve collateral efficiency
3. Adopt standardized documentation, such as the Global Master Repurchase Agreement (GMRA), to underpin cross-border repo transactions
4. Provide creditors' rights protection clauses (such as by recognizing close-out netting and the GMRA) in bankruptcy and insolvency regimes
5. Improve tax treatment by exempting all repo market transactions from withholding and transaction taxes, and eliminating stamp duties
6. Develop and phase-in sensible minimum holdings of government bonds by asset managers, pension funds and insurance companies to increase liquidity in repo markets and move away from the current environment of commercial bank dominance
7. Review electronic platforms and price feeds to improve real-time price discovery access
8. Improve interoperability of key market infrastructures, such as linking onshore and offshore repo markets at ICSDs, CSDs, and SSSs
9. Liberalize currency convertibility and repatriation policies to unlock collateral pools across the region
10. Establish regional pricing benchmarks to improve transparency and valuation of long- and short-term securities
11. Promote the use sovereign and corporate bonds in APEC as eligible collateral, as collateral in the form of benchmark securities (such as those issued by major governments) usually retain their value and are easily liquidated, even in market crises

# Annexure

# Annex I: Key Issues and Recommendations

| SUMMARY OF ISSUES AND RECOMMENDATIONS | | | |
|---|---|---|---|
| Impediments | Current Status | Recommendations | Key stakeholder(s) |
| Legal architecture | Enforceability of repo contracts, investor protections, and bankruptcy procedures vary due to divergent legal treatment and judicial interpretations across jurisdictions | 1. Ensure legal frameworks reflect the underlying characteristics of repo agreements (such as the full ownership transfer of assets in "classic repos");<br>2. Incorporate protections of creditors' rights during bankruptcy or insolvency proceedings (such as those reflected in the 2011 GMRA) in jurisdictions' bankruptcy laws; and<br>3. Move towards adoption of a "classic repo" market in which the buyer maintains rights to use assets and netting rights in the event of a counterparty default; and<br>4. Share information with securities regulators and judiciaries on repurchase agreements and the legal contracts that underpin them. | • Legislative/policy/legal experts,<br>• Judiciary for necessary reforms or interpretations to bankruptcy and insolvency regimes,<br>• Banking/securities regulators;<br>• Multilaterals such as the World Bank's handbook (see: "Repo Markets," March 2010). |
| Divergent legal constructions of repo markets | Regional differences in the legal constructions of the Repo (i.e. "Classic Repo" vs. "Buy and Sell Back," "Pledge," and "Borrow and Lend" models) | Harmonize legal constructions of repo transactions to enable the full ownership transfer of title, as well as netting and close-out rights during periods of insolvency or bankruptcy | • Legislative/policy/senior officials/legal experts/academics<br>• Judiciaries |
| Market infrastructure | Lack of pricing feeds, and linkages / interoperability between securities depositories and settlement systems across the region inhibits transparency and encumbers asset in domestic markets | i. Review electronic platforms (i.e. to improve real-time price discovery access); and<br>ii. Improve interoperability of key market infrastructures, such as linking onshore and offshore repo markets at ICSDs, CSDs, and Securities Settlement Systems to enable cross-border mobilization of assets. | • FMIs (CCPs, CSDs, TRs, etc.);<br>• Global custodians;<br>• Commercial data providers;<br>• Data vendors; and<br>• Technology, information and securities regulators. |

# Annex I: Key Issues and Recommendations (continued)

| | | | |
|---|---|---|---|
| Market conventions and industry best practices | Divergent market conventions and industry practices for:<br>• collateral management;<br>• management of tri-party repo platforms;<br>• data issues (such as flows and messaging);<br>• risk management and leverage; and<br>• interoperability of key market infrastructures;<br>• among others. | 1. Adopt industry best practices regarding documentation of repurchase agreements and collateral arrangements (such as the 2011 GMRA);<br>2. Employ standardized, best practices for data management and trade communications (such as messaging codes);<br>3. Upgrade risk management practices to international best practice;<br>4. Adopt international standards for flows and messaging, settlement timing, *inter alia*, which will enhance interoperability of market infrastructures. | • Trade associations, such as ICMA, JSDA, AFMA, ISDA, and ASIFMA;<br>• ASIFMA Repo Best Practice Guide and Repo Market Workshop;<br>• ICMA's GMRA document ; and<br>• Euroclear's guide to "Understanding Repos and Repo Markets." |
| Liquidity issues | Liquidity is impeded by:<br>1. Underdeveloped local currency (LCY) bond markets and lack of pricing benchmarks;<br>2. Limitations to utilize bond holdings in the repo market;<br>3. Restrictions on foreign investor participation;<br>4. Insufficient eligible liquid assets to be traded across borders<br>5. Market practice of holding assets to maturity; | i. Strengthen LCY bond markets and use them as eligible collateral;<br>ii. Collaborate with Asian central banks to establish cross-border collateral arrangements to increase pool of eligible securities to be traded across borders; | • Monetary authorities;<br>• Financial regulators; and<br>• Political or administrative authorities concerning trade and investment issues. |

# Annex I: Key Issues and Recommendations (continued)

| | | | |
|---|---|---|---|
| Restrictions on currency convertibility and repatriation | Restrictions on the amount of currency that can be remitted or repatriated would reduce market access and participation, thereby constraining the development of a cross-border repo market | Liberalization of such controls is necessary to promote cross-border trade and settlement in LCY bond and repo markets | • Monetary policy officials<br>• Treasury officials<br>• Central Banks |
| Tax treatment | Withholding taxes, transaction taxes stamp duties, and others may increase costs and decrease liquidity | Harmonized tax treatment, exemptions and double taxation treaties should be considered for repo market participants | • Tax authorities,<br>• Government Officials<br>• Legislative/policy experts |
| Market access issues | Restrictions on foreign investors, or registration requirements for foreign investors may deter market participation, impede the development of a cross-border repo market, and reduce liquidity | Liberalize market access for foreign financial institutions across the region to enhance participation, diversify the investor base, and increase market liquidity | • Financial regulators,<br>• Treasury officials<br>• Political or administrative authorities concerning trade and investment issues,<br>• Legislative/policy officials |

## Annex II: Bilateral vs. Tri-Party Repo

| Parameter | Bilateral | Tri-Party Repo |
|---|---|---|
| Market infrastructure | Direct links to SSS and ICSDs | Onboarding requirements to tri-party repo settlement systems |
| Efficiency | In-house repo and balance sheet management | Centralized operational support through third party |
| Legal documentation | Bilateral agreements offer more latitude for customizing repo contracts | Standardized agreements and documentation |
| Risk profile | Counterparty default protections stipulated in GMRA | -Custodial risk, collateral segregation and portability policies<br>-Tri-Party repo infrastructure reform ongoing |

# Annex III: Eligible Bonds and Trading Term Structures*

| | Eligible Bonds | Trading Term Structure |
|---|---|---|
| China | (Case of Interbank market）<br>(Year 2012）<br>Policy bank bonds 37.0%<br>Gov. bonds 32.0%<br>Central bank bills 10.0%<br>MTNs 10.0% | (Case of Interbank market)<br>Divided into 11 types of term. Most of them are overnight, 7 days, 14 days.<br><br>(Year 2012) Pledged Repo Outright Repo<br>ON 81.2% 66.2%<br>7D 12.6% 21.2%<br>14D 3.5% 7%<br>Total 100% 100% |
| Hong Kong | No restriction | No restriction |
| Indonesia | Government bond and Corporate bond | Minimum 3 days, maximum 3 years, average 1 month |
| Japan | Short-term government securities such as TBs, FBs, T-bills, Coupon bearing JGBs, CPs, CDs and overseas issued CPs. | (Only data regarding borrowing and lending type Repos ~cash<br>(Monthly data for Sept.2013)<br>ON (80.4%), Open-end (0.02%), Others (19.6%) |
| Korea | [OTC Repo] Won denominated bonds: Government Bond 46.3%, Special Bond 23.0%, Financial Bond 15.1%, MSB: 8.8%, Corporate Bond (with BBB or higher (for customers A or higher))4.6%, Municipal Bond: 0.4%, ETF: 2.9%, CPs are also possible<br>[Exchange Repo] Currently, only Government Bonds (KTBs) are traded, though FESBs, MSBs, and Corporate bonds with credit rating of AA or above are eligible. | [OTC Repo] There are fixed-term Repos and open-ended Repos. Most of<br>[Exchange Repo] 8 different tenors (ON, 3D, 7D,14D, 21D,60D and 90D) |
| Malaysia | Specified RENTAS securities, private debt securities, negotiable instrument of deposit, banker's acceptance, and any other types of financial instruments as may be specified by BNM. | IP-Repos are "term repos". In last active year 2011, volume share by tenor: **O/N 27%**, 1W 1%, 2W 1%, **1M 61%**, 2M 0%, **3M 10%** |
| Philippines | Limited to Government bonds for the time being with criteria set on issue size and liquidity | At peak volumes 2009-2010 Annual Turnover PHP345 billion (=USD8.02 billion), Peak Repos Outstanding PHP37 billion (= USD0.86 billion) |
| Thailand | Thai Baht denominated (Government, and investment grade corporate bonds). Most of collateral used is short-term paper. (Central bank bills 75%, Government bond 25%, State owned enterprise bonds 0.3%) | Over night accounted for approx. 56%<br>Breakdown： 1D 56%, 2-3 D 23%, 4-7D 15% |
| Vietnam | Government bonds,<br>Municipal bonds (legally acceptable, but in reality, they are rarely used) | (Case of Exchange market) Repo term is ranging from 2 days to 180 days, consists largely of 7 week term (47%) |

*Source: *Ryuichi Shiina of Japan Securities Dealers Association's working document for the ABMF, "Enhanced Comparative Analysis of Repo Markets in 9 ASEAN + 3 Countries & Jurisdictions," 15 April 2014.*

# Annex IV: Participants, Market Openness to Foreigners*

| | Participants | Market Openness to Foreigners |
|---|---|---|
| China | [Case of Interbank market]<br>Starting with 16 commercial banks, now expanding to 2200 institutions (banks, securities companies, insurance companies, trusts, funds, non- banks) | Not Open for overseas investors, but foreign investors who are incorporated in China are allowed to participate in the Repo market (Currently there are about 30 participants.) |
| Hong Kong | No restriction | Open |
| Indonesia | Banks (for government bond).<br>(Insurance companies and pension funds are prohibited from engaging in repo transactions based on KMK No. 424/KMK.06/2003). | Partially open? |
| Japan | Both domestic and overseas Institutional investors including corporations | Open |
| Korea | [OTC Repo] Institutional Investors Repos are open to financial institutions that hold securities accounts with KSD. Overseas participants should have an standing proxy in Korea. [Exchange Repo] Limited to KRX member firms | Open |
| Malaysia | Both licensed FIs and non-financial institutions (NFIs) subject to the requirement that at least one principal to the Repo transaction must be licensed FI | n/a |
| Philippines | **Participants as Repo Buyer Only:** Trusts, mutual funds, pension funds, insurance companies, other qualified institutional investors.<br>**Participants as Repo Buyer & Repo Seller:** PDEx Dealer Members | n/a |
| Thailand | Primary dealers appointed by BOT (currently 13), FI (dealers), Institutional investors | Open for foreign investors who are resident in Thailand, but not opened for overseas investors |
| Vietnam | SBV and commercial banks (for the open-monetary market using T-Bills and government bonds with maturities of more than 1 year).<br>Securities firms, commercial banks, and financial firms (through HNK's bond system, using government bonds with maturities of more than 1 year). | Not open |

*Source: *Ryuichi Shiina of Japan Securities Dealers Association's working document for the ABMF, "Enhanced Comparative Analysis of Repo Markets in 9 ASEAN + 3 Countries & Jurisdictions," 15 April 2014.*

## Annexure: Additional Resources

ICMA "ERC Guide to Best Practices in European Repo Market," March 2014
http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/short-term-markets/Repo-Markets/repo0/

Euroclear, "Understanding Repos and Repo Markets," March 2009
http://www.theotcspace.com/sites/default/files/2011/11/003-the-repo-market.pdf

Ryuichi Shiina of Japan Securities Dealers Association, Working document for the ABMF, "Enhanced Comparative Analysis of Repo Markets in 9 ASEAN + 3 Countries & Jurisdictions," 15 April 2014.

World Bank, Repo markets handbook, March 2010,
http://siteresources.worldbank.org/FINANCIALSECTOR/Resources/Repo_Markets_Handbook.pdf

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**Asia-Pacific Financial Forum**

# Interim Report to the APEC Finance Ministers

## ANNEX C

## Agenda for Classic Repo Markets Roadshow

| ASIFMA Repo Markets Road Show<br>Day 1 | |
|---|---|
| 12:30-12:35 | **Welcome Address** |
| 12:35-13:35 | **Luncheon** |
| 13:35-14:05 | **Presentation: ABCs of Repo Markets**<br>• Benefits and usefulness of repos<br>• Major market participants<br>• Overview of economic and operational construction of repo transactions<br>• Similarities and differences between secured financing transactions and repos<br>• Size and depth of Asian repo markets compared to other regions |
| 14:05-14:35 | **Presentation: Why Repos Matter to the Real Economy**<br>• Deepen liquidity in primary and secondary bond markets<br>• Establish a benchmark yield curve which improves price transparency across long- and short-term securities<br>• Facilitate pricing and valuation of corporate and infrastructure bonds<br>• Help support access to capital market financing for large corporates and SMEs<br>• Enhance investor participation in long term investments such as infrastructure<br>• Contribute to risk management by providing hedging tools to market participants<br>• Integrate regional bond markets which improves liquidity mobility and keeps Asian savings and investment in the region<br>• Help mobilize needed collateral to counter the adverse effects of increased asset encumbrance driven by regulatory change (such as Basel III, new asset segregation rules, and central clearing mandates, among others)<br>• Reduce Asian dependence on U.S. dollar funding |
| 14:35-15:05 | **Presentation: Roadmap Towards a Deep, Liquid Cross-Border Repo Market in Asia**<br>• Why "classic" repos are a critical component of capital market development<br>• Evolution of Asia's repo markets: Where are we and where are we heading?<br>• What lessons can Asia derive from "model markets," such as the U.S. and New Zealand?<br>• Necessary conditions to develop an efficient cross-border repo market in Asia |
| 15:05-16:00 | **Panel Discussion: Meeting the Liquidity Challenge: Improving the Depth of Regional Local Currency Bond and Repo Markets**<br>• What role do repos play in local currency (LCY) bond market development?<br>• What is the current state of LCY bond market liquidity and price transparency?<br>• Examining potential market impediments:<br>    o Are there limitations for financial institutions to utilize bond holdings in the repo market?<br>    o What proportion of bond securities are 'held to maturity' compared to those that are 'available for sale'? How may these market conventions unintentionally encumber assets and reduce the development of a deep, liquid repo market?<br>    o How active are domestic and international investors in local bond and repo markets? How can policymakers induce institutional investor (foreign and domestic) in these markets?<br>    o How may restrictions on foreign investor participation, currency convertibility and repatriation impede the development of cross-border repo markets?<br>• Benefits of developing cross-border repo markets: Diversifying investor base, unlocking liquidity and collateral pools, and reinforcing long-term investment |
| 16:00-17:00 | **Cocktail hour** |

| ASIFMA Repo Markets Road Show<br>Day 2 | |
|---|---|
| 9:00-9:05 | **Welcome Address** |
| 9:05-9:35 | **Presentation: Importance of Developing a Deep, Liquid Cross-Border Repo Market in Asia**<br>• Significance to capital market development and local currency (LCY) bond market development<br>• Repo markets contributions to the real economy<br>• Policy instruments to enhance liquidity and investor participation in LCY bond and repo markets<br>• Basic requirements to develop an efficient cross-border repo market in Asia |
| 9:35-10:20 | **Panel discussion: Enhancing Market Infrastructures to Support Efficient Cross-Border Pricing, Trading, Clearing and Settling of Repo Transactions**<br>• How integrating regional bond markets through market infrastructures improves liquidity mobility and keeps Asian savings and investment in the region<br>• Role of price feeds and exchanges in improving price transparency and facilitating valuation of and investment in long-and short-term securities<br>• How can linkages and interoperability between securities depositories and settlement systems across the region improve transparency and asset mobility across ASEAN + 3 markets?<br>• What are the key operational challenges to effective cross-border clearing and settlement? |
| 10:20-11:05 | **Panel Discussion: Adopting Operational Best Practices in Cross-Border Repo Markets**<br>• What is the current state of market infrastructures that support repo transactions in Asian jurisdictions?<br>• How may the efficiency of electronic price discovery, trading, clearing and settlement platforms improve?<br>• Strategies to maximize capital efficiency and enable cross-border mobilization of assets<br>• Improving interoperability of key market infrastructures, such as ICSDs, CSDs, and Securities Settlement Systems<br>• Weighing the pros and cons of moving towards a tri-party repo structure<br>• Enhancing settlement efficiency through Straight Through Processing (STP)<br>• Establishing common rules on data standards, message formats, and transaction identifiers to ensure accurate, efficient cross-border settlement |
| 11:05-11:30 | **Tea and coffee break** |
| 11:30-12:15 | **Panel discussion: Risk Management in Repo Transactions**<br>• Progress of repo market reform post-GFC: Reducing intra-day credit dependence, improving repo market structures, and addressing remaining risks in repo markets<br>• Risk management best practices: Collateral valuation, initial margining and mark-to-market conventions<br>• Dealing with 'fails' and 'events of default': Insolvency triggers, netting and close-out rights, and partial deliveries<br>• Importance of repo documentation to minimize legal risks<br>• Protections afforded in GMRA<br>• Risk management in tri-party platforms: Analyzing agent's credit risk profile as well as asset segregation and portability policies |

| | |
|---|---|
| 12:15-13:00 | **Panel Discussion: Collateral Management in the New Regulatory Landscape**<br>• Role of collateral in repo transactions<br>• What role does collateral play in hedging credit and liquidity exposures?<br>• How may the new regulatory environment fuel demand for collateral and contribute to institutional investor participation in repo markets?<br>• What are the implications of Basel III liquidity ratios on asset eligibility and repo market funding?<br>• How may repo markets enable market participants to meet these new liquidity requirements? |
| 13:00-14:00 | **Lunch** |
| 14:00-14:45 | **Panel Discussion: The Importance of the Legal Architecture of Repo Transactions**<br>• What are the key differences between legal constructions of “classic,” “buy and sell back,” “pledge,” and “borrow and lend” repo transactions?<br>• What is the underlying legal construction of repo transactions in Asian jurisdictions?<br>• What are the necessary components of the legal frameworks and infrastructural components necessary to support the development of a “classic” repo model in Asian jurisdictions?<br>• Legal issues with the Global Master Repurchase Agreement (GMRA) and national repo agreements<br>• How are repos treated under bankruptcy and insolvency regimes in Asian markets?<br>• What legal certainty do investors have that their rights to the title of assets and netting rights will be protected in the event of counterparty default?<br>• What are creditors’ rights to close-out netting in the event of insolvency?<br>• What are the key legal and regulatory roadblocks in Asian jurisdictions and how can they be addressed? |
| 14:45-15:30 | **Panel Discussion: Examining the Impact of the Tax and Accounting Regimes on Repo Market Activity**<br>• How do tax and accounting treatments in Asian jurisdictions compare to “model markets”?<br>• How may the financial transaction tax and stamp duties constrain the growth of the repo market?<br>• What are the real implications of withholding taxes for foreign and domestic repo market participants? |
| 15:30-16:15 | **Panel Discussion: Priorities and Recommendations to Develop a Cross-Border Repo Market in ASEAN + 3**<br>• Instilling market confidence by ensuring creditors’ rights during bankruptcy or insolvency proceedings are protected in the legal architecture<br>• Enabling cross-border settlement and delivery by improving interoperability of key market infrastructures, such as linking onshore and offshore repo markets at ICSDs, CSDs, and SSSs<br>• Unlocking liquidity pools across the region by liberalizing currency convertibility and repatriation policies, and improving market access for foreign investors<br>• Improving transparency by improving price feeds and establishing regional pricing benchmarks<br>• Benefits of cross-border repo market integration: Reinforces LCY bond market development, diversifies investor base, decreases volatility, and reduces transaction and investment costs |
| 16:15-16:20 | **Closing Remarks** |

## Asia-Pacific Financial Forum

# Interim Report to the APEC Finance Ministers

## ANNEX D

## Netting and Collateral Issues in APEC

## Netting Issues – Country Specific Analysis

| NAME OF COUNTRY | NETTING ISSUE(S) | MOVING FORWARD |
|---|---|---|
| People's Republic of China | ▪ In September 2013, China's Supreme Court issued interpretation of set-off provisions in China's Enterprise Bankruptcy Laws that provided welcome clarity and enhanced contractual protection for creditors.<br>▪ However, there still exist some uncertainties regarding enforceability of close-netting in China given China does not have a netting legislation. Work remains to be done for the purpose of providing the netting certainty required by Basel for regulatory capital purposes and by CPSS-IOSCO for qualifying CCP purposes. | ▪ ISDA has commissioned a memorandum on the current gaps to netting certainty to facilitate analysis of required next steps.<br>▪ Domestic institutions such as Shanghai Clearing House also understand the importance of netting certainty and together with PBOC have begun dialogue with law making authorities within the State Counsel.<br>▪ Formal revision of the 2007 Enterprise Bankruptcy law would be one possibility; another would be to include provisions similar to what a netting legislation entails for financial contracts in the draft Financial Institution Bankruptcy Regulations. ISDA contributed netting language to the original draft of the Regulation in 2008. A new sense of urgency might provide the impetus to finalize this guidance. |
| Indonesia | ▪ Indonesian counsel has opined that the close-out netting provisions of the ISDA Master Agreement would be enforceable, taking into consideration, among others, Section 1425 (and subsequent provisions) of the Indonesian Civil Code and the Article 52 of the Indonesian Bankruptcy Law<br>▪ However, Indonesian counsel has highlighted that there is a considerable degree of uncertainty with respect to the material content of legal rules, including the scope and enforceability of such rules, taking into account the framework of Indonesian law, a lack of relevant precedents as well as a relatively unsophisticated derivatives market. | ▪ Counterparties should consider, among others, the following:<br>i) In order to avoid foreign currency prohibition on payments under the Currency Law passed in 2011, the parties should expressly concur in writing in each contract which payment is to be made in foreign currency other than Rupiah.<br>ii) Foreign banks entering into derivative transactions with Indonesian counterparties should observe the Derivatives Decree which provides a variety of provisions to be included in the documentation. |
| Republic of Korea | ▪ The close-out netting provision of the ISDA Master Agreement would be enforceable under the law of Korea with the following qualifications:<br>i) Bullion, longevity and physical commodity transactions may not fall within the scope of "a forward, option or swap transaction" and, hence, may not qualify as a Qualified Financial Transaction for purposes of Article 120 and Article 336 of the Debtor Rehabilitation and Bankruptcy Law (DRBL).<br>ii) Based on the "Preference Provision" of the Banking Law, in the event of liquidation or bankruptcy of a local branch of a foreign bank, Korean court might not enforce the close-out netting provisions of the ISDA Master Agreement in order to satisfy preferentially the claims of Korean citizens or foreigners resident in Korea against the branch.<br>▪ In addition, in respect of Corporate Restructuring Promotion Law (CRPL) proceedings, counsel recommend that the 15 day grace period in Section 5(vii)(4) of the 2002 Master Agreement or the 30 day grace period in Section 5(vii)(4) of the 1992 Master Agreement be eliminated. This is because under the DRBL, upon commencement of Rehabilitation Proceedings, all creditors' enforcement actions (including disposition of collateral) would be automatically stayed. Although this amendment to the ISDA Master Agreement is recommended in the ISDA netting opinion, in practice, Korean counterparties have been unwilling to agree to such amendment and accordingly subject their foreign counterparties to increased counterparty credit risk. | ▪ Uncertainty in netting arises from the "Preference Provision" for protecting Korean citizens or resident foreigners. Regulators need to make (partial) amendment to the provision in that the opinion satisfies general regulatory standards.<br>▪ Recommend incorporation of a carve-out to the automatic stay under the CPLR applicable to credits' enforcement actions regarding Qualified Financial Transactions in order to eliminate the residual collateral enforcement risks. |
| Malaysia | ▪ Malaysian counsel has opined that prior to insolvency intervening, contractual set-off rights (which include | ▪ ON 25 October, the Malaysian Prime Minister and Minister of Finance tabled the 2014 Malaysia |

| | | |
|---|---|---|
| | the close-out netting provisions under the ISDA Master Agreement) would be available and thus the exercise of close-out netting rights under the ISDA Master Agreement would be enforceable against a Malaysian-incorporated counterparty. Upon insolvency contractual set-off rights would be enforceable only to the extent that such rights are consistent with the statutory right of set-off.<br><br>▪ Concerns over close-out netting arise due to the following statutes:<br><br>i) Pengurusan Danaharta Nasional Berhard Act 1998 (Danaharta Act);<br><br>ii) Malaysia Deposit Insurance Corporation Act 2011 (replacing the Act of 2005) (MDIC Act); and<br><br>iii) Capital Markets and Services (Amendment) Act 2011 (CMSA Act) | Budget Speech in which he stated, among others, that amendments will be made to existing laws and Bank Negara Malaysia will lead the initiative in formulating the Netting Act to protect enforcement rights of "close-out netting" under the financial contract. |
| Peru | ▪ Under Peruvian law, the close-out netting provisions of the ISDA Master Agreement takes effect upon the insolvency of a Peruvian counterparty. However, in the case of Financial Institutions, pursuant to Article 116 of the Banking Law and Circular N° G-155-2011 issued by the Superintendencia de Banca Seguros (SBS), the close-out netting provisions are only enforceable when triggered by an event of default under section 5(a)(vii) of the agreement and only if the ISDA Master Agreement is entered into with 1) another Financial Institution,2) an entity supervised and regulated by the SBS or the SMV, or 3) an entity organized outside Peru that is similar in nature to a Financial Institution and that is also subject to regulation and supervision in its home jurisdiction.<br><br>▪ In addition, Peruvian law imposes other conditions of validity in the jurisdiction of the Financial Institution's counterparty, no alteration of specified Sections of the ISDA Master Agreement, and the requirement that copies of the executed ISDA Master Agreement, all applicable schedules and annexes (excluding confirmations) be filed with the SBS prior to the intervention, dissolution or liquidation of the Financial Institution. | |
| The Philippines | ▪ Philippine counsel has opined that the close-out netting provisions of the ISDA Master Agreement would be enforceable, taking into consideration, among others, Article 1278 of the Philippine Civil Code.<br><br>▪ However, Philippine counsel has also highlighted that certain provisions of the Philippine Civil Code may limit the range of transactions entered into with Philippines counterparties that would enjoy netting enforceability.<br><br>▪ According to "Risk Management Guidelines for Derivatives" issued by the Philippine Central Bank, the following measures are recommended:<br><br>i) For Philippine Banks, non-bank financial intermediaries performing quasi-banking functions or their subsidiaries or affiliates engaged in related financial activities acting as end users or dealers in their own capacity, they must represent the purpose of the transactions if it is for hedging.<br><br>ii) All Philippine counterparties must demonstrate that transactions are entered into with an underlying legitimate business or economic purpose and not for speculation. Also, they should represent that they have obtained any applicable license or permit necessary to enter into transactions. | |
| Russia | ▪ The Russian netting opinion is in its final stages and | ▪ In light of netting legislation not being fully |

| | | |
|---|---|---|
| | currently is under review by ISDA.<br><br>▪ The local netting regime is connected to required trade reporting. That is, netting in Russia only works once trade reporting is up and running.<br><br>▪ Reporting requirements have been legally in place since early November, but only for a limited number of transaction types. Furthermore, the infrastructure for TRs (there are two local TR operators) is not working properly. Hence, notwithstanding the legal framework, the market infrastructure is not in place. | operational due to the lack of TR infrastructure, ISDA (in co-operation with both Russian TR operators as well as NAUFOR (local securities market SRO)) is in touch with Central Bank of Russia as the newly appointed sole regulator (as of Q4 2013). ISDA has set up a joint working group that has made submissions to CBR seeking clarification on the operability of trade reporting. Two workshops hosted by ISDA and EBRD have been held with Russian regulators and market participants (including(?)TR) to discuss practical and technical solutions to the public. Next submission due in February 2014 followed by another workshop. |
| Vietnam | ▪ ISDA has not obtained any netting opinions for Vietnam. | ▪ Vietnam intends to enact a new Bankruptcy Law in June 2014 with a view to implementation by year-end. This is in recognition of the fact that the current bankruptcy law has not been effective (with many “zombie” companies in existence; it was also estimated that there have been only about 100 cases filed in the HCMC courts in the last 10 years). The IFC is assisting Vietnam in the project.<br><br>▪ ISDA was invited to attend the consultation meetings jointly conducted by the Supreme People’s Court of Vietnam, the Vietnam Business Forum Consortium and the IFC. ISDA lobbied for the inclusion of a safe harbor for close-out netting and has proposed language to be included in the draft Bankruptcy Law. |

## Collateral Issues – Country Specific Analysis

<table>
<tr><th rowspan="2">NAME OF COUNTRY</th><th rowspan="2"></th><th colspan="3">COLLATERAL ISSUE</th><th rowspan="2">RECOMMENDATION</th></tr>
<tr><th colspan="2">New York Law Pledge / English Law Security Interest</th><th>English Law Title Transfer</th></tr>
<tr><td rowspan="5">Indonesia</td><td>Governing Law – Creation of Security Interests<br>Governing Law – Perfection of Security Interests</td><td colspan="2">▪ Indonesian counsel has highlighted that there is a lack of sources of private international law precedents and coverage of the contractual aspects of security interest by Indonesian legal writers. As such, Indonesian counsel has considered issues of private international law in this context based on Dutch private international law as it has evolved over the past decades (excluding legislation implemented, or case law published, as a result of European directives or treaties.)<br><br>▪ With respect to the creation of a security interest in tangible assets (including, among others, Eligible Collateral in the form of bearer and payable to order debt securities, the law of location of collateral).<br><br>▪ With respect to the creation, perfection, recognition and enforcement of a fiduciary transfer of intangible assets (such as personal rights), there are essentially two views in Dutch literature, one being the law governing the underlying assets to be encumbered will also govern its transfer and the other governing the obligation to create the security interest is the proper law (i.e. the law governing the security agreement). To the extent that these laws are different, when creating a security interest, Indonesian counsel has stated that it is advisable to comply with the requirements of both laws.<br><br>▪ However, unless the relevant requirements for the creation of a valid security interest under Indonesian law are complied with, an Indonesian court may not recognize the validity of a security interest in an asset located in Indonesia created under a Security Document governed by English or New York law.</td><td>Not Applicable</td><td rowspan="5">▪ In order to avoid foreign currency prohibition on payments under the Currency Law passed in 2011, the parties should expressly concur in writing in each contract which payment is to be made in foreign currency other than Rupiah.</td></tr>
<tr><td>Perfection Requirements</td><td colspan="2">▪ Indonesian counsel has noted that notwithstanding that there are no specific requirements regarding perfection of a security interest, in order for an Indonesian court to recognize such security interest, relevant mandatory requirements for the creation of a security interest under Indonesian law must be satisfied. For example, the creation of an Indonesian fiduciary transfer or right of pledge is required and these requirements differ and may be onerous.</td><td>Not Applicable</td></tr>
<tr><td>Priority against competing creditors</td><td colspan="2">▪ In general, if a secured party has been granted a security interest (through a pledge or fiduciary transfer) in the Eligible Collateral and its creation complies with mandatory Indonesian law requirements, then a secured party will have priority over (almost) all other claims.</td><td>Not Applicable</td></tr>
<tr><td>Preferred claims</td><td colspan="2">▪ In special claim cases such as payment of the costs of foreclosure, payment of the costs incurred after execution of the pledge and payment to tax authorities, these creditors' claims will take precedence.<br><br>▪ Specific claims which an Indonesian court classifies as an exception would also take precedence over secured claims.</td><td>Not Applicable</td></tr>
</table>

| | | | | |
|---|---|---|---|---|
| Republic of Korea | **Governing Law – Creation and Perfection of Security Interests** | ▪ Under the Korean choice of law rules, the validity (together with all proprietary aspects such as perfection, priority, foreclosure) of a security interest is governed by the law of the jurisdiction where the collateral is located:<br><br>(i) Cash credited to an account – With respect to cash held outside Korea, the laws of the jurisdiction where such cash is held would be deemed to be the governing law for the protection of a security interest, but a security interest in cash held in Korea could not be recognized by Korean law.<br><br>(ii) A directly held bearer debt securities – the law of jurisdiction where security certificate is physically located would govern security interest in the security.<br><br>(iii) A directly held registered debt securities or a directly held dematerialized debt securities - the law that governs the rights entailed in the securities would be the governing law as to a security interest in such securities.<br><br>(iv) Intermediated debt securities - the relevant law that governs a security interest in the securities is unsettled under the Private International Law. | ▪ It is not clear how a title transfer arrangement would be characterized under Korean law and there may be advantages to the arrangement being characterized as either a security interest or one that functions as collateral that is protected under the Korean netting legislation. | ▪ **For New York Law Pledge & English Law Security Interest**:<br><br>Counsel recommends that the 30 day (or 15 day in the 2002 Master Agreement ) grace period in Section 5(a)(vii)(4) should be eliminated so that in the case where a petition for rehabilitation proceedings is filed, enforcement of rights can occur prior to the formal commencement of proceedings (when an automatic stay will apply).<br><br>In practice, Korean counterparties have been unwilling to agree to such amendment and accordingly subject their foreign counterparties to increased counterparty credit risk.<br><br>We would recommend adoption of a carve-out to the automatic stay under the CPLR applicable to creditors' enforcement actions regarding Qualified Financial Transactions in order to eliminate the residual collateral enforcement risks.<br><br>▪ **English Law Title Transfer:**<br><br>Although the risk is smaller in respect of the Transfer Annex, Counsel also recommends disapplying the bankruptcy event of default grace period, so that in the case where a petition for rehabilitation proceedings is filed, enforcement of rights can occur prior to the formal commencement of proceedings.<br><br>The same recommended legislative change set out above applies to the Transfer Annex as well. In addition, we would also recommend the definition of "Tambo" used in Article 120, Paragraph 3 and Article 336 of the DRBL be clarified to cover title transfer arrangement. |
| | **Creation and Perfection of a pledge over local collateral** | ▪ Cash: Korean law does not recognize a pledge of cash; a security interest can only be established on a Cash Deposit. Under Korean law, the pledge of a claim that is effective against all parties (including the obligor of the pledged claim) requires the collateral provider to send a fixed-date stamped notice to or to obtain a fixed-date stamped consent of, the obligor of the pledged claim, i.e., the depository bank.<br><br>▪ Securities (i.e., bonds issued in Korea, denominated in Korean Won that will be paid or delivered by book-entry through the settlement system operated by the Korea Securities Depository ("KSD"): under Korean law, the pledge of book-entry securities such as the securities is created and perfected in the following manner:<br><br>(i) If the Collateral Provider maintains an account with the KSD, an application is made by the Collateral Provider to the KSD for the pledge and the KSD makes an entry into the Collateral Provider's account with a statement to the effect that certain designated securities in the account are pledged to the Secured Party together with the address of the Secured Party.<br><br>(ii) If the Collateral Provider is not a participant of the KSD but has an account with a Custodian that is a participant of the KSD, the Custodian (upon the instruction of the Collateral Provider) makes an entry into the Collateral Provider's securities account with a statement to the effect that certain designated securities in the account are pledged to the Secured Party together with the address of the Secured Party. | Not Applicable | |
| | **Preferred claims under Korean bankruptcy laws** | ▪ Under Korean law, certain preferred claims such as "Yuchi Kwon" (a possessory lien), tax claims and claims for a limited amount of unpaid wages would be accorded priority over a secured party. | Not Applicable | |
| Malaysia | **Governing Law –** | ▪ The law governing the contractual aspects of a security interest would be recognized as the | Not Applicable | - |

| | | | | |
|---|---|---|---|---|
| | **Creation of Security Interests** | governing law of the Security Documents, provided that the choice of law was made bona fide and the Security Documents do not contravene any laws or public policy of Malaysia, save where the laws require creation to be in accordance with the laws where the ELigibile Collateral is situated. | | |
| | **Governing Law – Perfection of Security Interests** | ▪ Under the laws of Malaysia, the law of jurisdiction with respect to the perfection of security interest depends on the type and the location of collateral:<br><br>(i) cash credited to an account – law of jurisdiction where the cash is held in practice or the account in which cash is deposited is located.<br><br>(ii) directly held bearer debt securities – law of jurisdiction where the certificate of such security is located.<br><br>(iii) directly held registered debt securities – law of jurisdiction where register of such security is archived.<br><br>(iv) directly held dematerialized debt securities – law of jurisdiction where the depository is established and where it keeps the account in which the entitlements of the depositors are recorded.<br><br>(v) intermediated debt securities – law of jurisdiction where the Intermediary is located and where the depositors' account is kept. | Not Applicable | |
| | **Perfection Requirements** | ▪ The security interest created under the security documents would need to be registered if its, among others, a charge over shares of a subsidiary if a company which are owned by that company, a floating charge on the undertaking or property of a company or a charge on the credit balance in any deposit account.<br><br>▪ In the event these fail to be registered, then the charge over the collateral would be void. With respect to charged assets which are owned by Malaysian companies or a branch of a foreign company in Malaysia, the assets would be subject to the relevant provisions and requirements of the Companies Act 1965.<br><br>▪ A collateral taker should adhere to perfection of security interest in collateral which a third party holds through the notice of its interest to that third party.<br><br>▪ Under the Exchange Control Act 1953, particular types of security are required for registration. Certain banks would be exempted from registration. | Not Applicable | |
| | **Priority against competing creditors** | ▪ Although in Malaysia, secured interest is in general governed by the common law priority rules, specific legislation such as Section 292 of the Companies Act 1965 could affect general laws of priority as noted above. In summary, general laws of priority may be affected by priorities conferred by specific legislation. | Not Applicable | |
| | **Preferred claims** | ▪ Certain preferred creditors would exercise priority over a floating charge. Once secured creditors have been paid out of the assets that comprise their security, the remainder of the assets will be distributed among the preferred creditors in the order prescribed in the Companies Act 1965. | Not Applicable | |

| | | | | |
|---|---|---|---|---|
| | | ▪ Clearing houses could also have priority in circumstance where the collateral provider transacts through clearing houses. | | |
| Thailand | **Governing Law – Creation of Security Interests** | ▪ The courts of Thailand should recognize the foreign governing law of the place of the creation and perfection of the security interest on Eligible Collateral located in such foreign country, unless it is considered contrary to the public order or good morals of the people of Thailand. | Not Applicable | |
| | **Governing Law – Perfection of Security Interests** | ▪ As there are no Supreme Court precedents on this issue, Thai law rules in respect to determining location are unsettled.<br><br>▪ Under the Conflict of Law Act, the creation and perfection of a security interest is governed by the law of the place where the property is situated, *lex situs*. In determining the location of such Eligible Collateral, the court will consider the physical location of such asset as *prima facie* location. In determining which law is the *lex situs*, as an indicative guideline, a Thai court may consider that the location of each of the following types of assets will be the place:<br><br>(i) Directly held bearer debt securities - law of jurisdiction where the certificate is located<br><br>(ii) Directly held registered debt security - law of jurisdiction where the register is located<br><br>(iii) Directly held dematerialized debt security - law of jurisdiction where the register is located<br><br>(iv) Indirectly held debt securities - law of jurisdiction where the intermediary is located<br><br>(v) Cash collateral - law of jurisdiction where the entity with which the cash is deposited is located. | Not Applicable | |
| | **Perfection Requirements** | ▪ **Counterparty in jurisdiction/ Collateral out of jurisdiction**<br><br>(i) Under the laws of Thailand, the law of jurisdiction with respect to the perfection of security interest depends on the type and the location of collateral.<br><br>(ii) Collateral which is located outside of Thailand would be required to follow the same creation and perfection procedures as the collateral in Thailand.<br><br>▪ **Other Cases**<br><br>(i) Under the laws of Thailand, the law of jurisdiction with respect to the perfection of security interest depends on the type and the location of collateral.<br><br>(ii) With respect to bonds issued by government or by other state-owned entities, the terms and conditions thereof will normally be attached to the bonds. There is no restriction on the transferor pledge of such bonds, provided that the transfer of title or pledge is registered with the Bank of Thailand as the registrar. | Not Applicable | |
| | **Priority against competing creditors** | ▪ In general, a perfected of security interest has priority. | Not Applicable | |
| | **Transferring** | Not Applicable | ▪ In certain | |

| | | | | |
|---|---|---|---|---|
| | **Title** | | circumstances, certain modifications to the Transfer Annex may be necessary depending on the type pf entity, the collateral involved and the financing structure under the master agreement. | |
| | **Preferred claims** | ▪ With respect to preferential rights, the priorities under Thai law would generally depend on whether these are general preferential rights or special preferential rights. | Not Applicable | |

## APEC Nettingand Collateral Opinions Summary Matrix

| NO. | NAME OF COUNTRY | STATUS OF NETTING LEGISLATION | STATUS OF ISDA NETTING OPINIONS | STRENGTH OF NETTING OPINIONS | STATUS OF ISDA COLLATERAL OPINIONS | STRENGTH OF COLLATERAL OPINIONS |
|---|---|---|---|---|---|---|
| 1 | Australia | Adopted | Received | Clean | Received | Clean |
| 2 | Brunei Darussalam | | | | | |
| 3 | Canada | Adopted | Received | Clean | Received | Clean |
| 4 | Chile | Under Consideration | Received | Clean | Received | Clean |
| 5 | People's Republic of China | | | | | |
| 6 | Hong Kong, China | | Received | Clean | Received | Clean |
| 7 | Indonesia | | Received | Fairly Clean | Received | Unclean |
| 8 | Japan | Adopted | Received | Clean | Received | Clean |
| 9 | Republic of Korea | Adopted | Received | Fairly Clean | Received | Unclean |
| 10 | Malaysia | | Received | Fairly Clean | Received | Unclean |
| 11 | Mexico | Adopted | Received | Clean | Received | Clean |
| 12 | New Zealand | Adopted | Received | Clean | Received | Clean |
| 13 | Papua New Guinea | | | | | |
| 14 | Peru | Adopted | Received | Fairly Clean | | |
| 15 | The Philippines | | Received | Fairly Clean | Received | Clean |
| 16 | Russia | Adopted | Commissioned | | | |
| 17 | Singapore | | Received | Clean | Received | Clean |
| | Chinese Taipei | | Received | Clean | Received | Clean |
| 19 | Thailand | | Received | Clean | Received | Unclean |
| 20 | The United States | Adopted | Received | Clean | Received | Clean |
| 21 | Vietnam | | | | | |

Sources: www2.isda.org, netalytics&CSAnalytics, netting and collateral opinions from counsels of each country

as of: 9-Jan-14

**Asia-Pacific Financial Forum**

# Interim Report to the APEC Finance Ministers

## ANNEX E

## Self-Assessment Template: Disclosure

**Accounting and Disclosure SubGroup**

**Phase 1 – Comparison of regulatory requirements/common practice in various jurisdictions regarding bond issue**

***Economies/jurisdictions (within Asia) selected for Phase 1 comparison are:***

1) Hong Kong
2) China
3) Japan
4) Thailand
5) Philippine
6) Korea
7) Singapore
8) Indonesia

These economies are an indicative list that may be expanded at a later stage in the project.

***Approach:***

A number of economies/jurisdictions in Asia have adopted or will soon adopt International Financial Reporting Standards (IFRSs) or IFRS equivalents[1]. IFRSs (in particular, IFRS 7 *Financial Instruments: Disclosures*) require some disclosures regarding the nature and the extent of risks arising from financial instruments. For this reason, the requirements set out in the applicable IFRSs would be used as a starting point for comparison purposes.

Specifically, you can see (from the tables below), we,

- *first* identify the applicable IFRS requirements; and
- *second* identify the regulatory requirements (e.g. listing rules) and common practice in various jurisdictions.

We have identified the following areas for comparison purposes:

1) Investors' risk
2) Credit rating information of bond issuers
3) Bond issuer's ability to pay principal and interest
4) History of bond issuers' breach of loan covenants
5) Non-GAAP measures (e.g. requirement to disclose gross profit, EBITDA etc.)
6) Related/connected party transactions/balances
7) Corporate structure of bond issuers
8) Use of bond issue proceeds
9) Others (please specify)

[1] Appendix 1 to this document summaries the status of IFRS adoption of the selected jurisdictions.

**Comparison template**

**B1 Investors' risk (e.g. interest rate risk, liquidity risk)**

| **IFRS disclosure requirement** | | | |
|---|---|---|---|
| Does IFRS require any specific disclosures regarding investor's risk? | [If yes, please include the reference to IFRSs and the specific requirements.] | | |
| **Regulatory requirements and common practice in various jurisdictions** | | | |
| Jurisdictions | 1) Does the jurisdiction require any disclosures regarding the nature and extent of investors' exposure? | 2) If yes to Q1, what are they? Please specify. Please also include the source of requirements (e.g. references to the applicable listing rules). | What is the common practice in the jurisdiction? In particular, what additional disclosures do bond issuers made in the jurisdiction (in addition to those required by regulators)? |
| Hong Kong | | | |
| China | | | |
| Japan | | | |
| Thailand | | | |
| Philippine | | | |
| Korea | | | |
| Singapore | | | |
| Indonesia | | | |
| | | | |

**B2 Credit rating information of bond issuers (e.g. credit rating of bond issuer and the related details)**

<table>
<tr><td colspan="4">IFRS disclosure requirement</td></tr>
<tr><td>Does IFRS require any specific disclosures regarding credit rating information of bond issuers?</td><td colspan="3">[If yes, please include the reference to IFRSs and the specific requirements.]</td></tr>
<tr><td colspan="4">Regulatory requirements and common practice in various jurisdictions</td></tr>
<tr><td>Jurisdictions</td><td>1) Does the jurisdiction require any disclosures regarding the credit rating information of bond issuers?</td><td>2) If yes to Q1, what are they? Please specify. Please also include the source of requirements (e.g. references to the applicable listing rules).</td><td>What is the common practice in the jurisdiction? In particular, what additional disclosures do bond issuers make in the jurisdiction (in addition to those required by regulators)?</td></tr>
<tr><td>Hong Kong</td><td></td><td></td><td></td></tr>
<tr><td>China</td><td></td><td></td><td></td></tr>
<tr><td>Japan</td><td></td><td></td><td></td></tr>
<tr><td>Thailand</td><td></td><td></td><td></td></tr>
<tr><td>Philippine</td><td></td><td></td><td></td></tr>
<tr><td>Korea</td><td></td><td></td><td></td></tr>
<tr><td>Singapore</td><td></td><td></td><td></td></tr>
<tr><td>Indonesia</td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
</table>

**B3 Bond issuers' ability to pay principal and interest**

**(E.g. information about bond issuers' ability to generate cash flows from independent third parties, business model/principal activities of the bond issuer and extent of reliance on its top [] customers, profit and cash flow forecast for the coming few years, guarantee arrangement if the bond issuer defaults etc..)**

| **IFRS disclosure requirement** | | | |
|---|---|---|---|
| Does IFRS require any specific disclosures regarding bond issuers' ability to pay principal and interest? | [If yes, please include the reference to IFRSs and the specific requirements.] | | |
| **Regulatory requirements and common practice in various jurisdictions** | | | |
| Jurisdictions | 1) Does the jurisdiction require any disclosures regarding the bond issuers' ability to pay principal and interest? | 2) If yes to Q1, what are they? Please specify. Please also include the source of requirements (e.g. references to the applicable listing rules). | What is the common practice in the jurisdiction? In particular, what additional disclosures do bond issuers make in the jurisdiction (in addition to those required by regulators)? |
| Hong Kong | | | |
| China | | | |
| Japan | | | |
| Thailand | | | |
| Philippine | | | |
| Korea | | | |
| Singapore | | | |
| Indonesia | | | |
| | | | |

**B4 History of bond issuers' breach of loan covenants**

| **IFRS disclosure requirement** | | | |
|---|---|---|---|
| Does IFRS require any specific disclosures regarding history of bond issuers' breach of loan covenants? | [If yes, please include the reference to IFRSs and the specific requirements.] | | |
| **Regulatory requirements and common practice in various jurisdictions** | | | |
| Jurisdictions | 1) Does the jurisdiction require any disclosures regarding history of bond issuers' breach of loan covenants? | 2) If yes to Q1, what are they? Please specify. Please also include the source of requirements (e.g. references to the applicable listing rules). | What is the common practice in the jurisdiction? In particular, what additional disclosures do bond issuers make in the jurisdiction (in addition to those required by regulators)? |
| Hong Kong | | | |
| China | | | |
| Japan | | | |
| Thailand | | | |
| Philippine | | | |
| Korea | | | |
| Singapore | | | |
| Indonesia | | | |
| | | | |

**B5 Non-GAAP measures (e.g. requirement to disclose EBITDA etc.)**

| | | | |
|---|---|---|---|
| **IFRS disclosure requirement**<br><br>**What are the minimum line items to be disclosed in the statement of profit and loss and statement of financial position? Please also include the specific IFRS references.**<br><br>**[]** | | | |
| **Regulatory requirements and common practice in various jurisdictions** | | | |
| Jurisdictions | 1) Does the jurisdiction require any line items to be disclosed (e.g. EBITA etc.)? | 2) If yes to Q1, what are they? Please specify the additional line items. Please also include the source of requirements (e.g. references to the applicable listing rules). | What is the common practice in the jurisdiction? In particular, what additional disclosures do bond issuers make in the jurisdiction (in addition to those required by regulators)? |
| Hong Kong | | | |
| China | | | |
| Japan | | | |
| Thailand | | | |
| Philippine | | | |
| Korea | | | |
| Singapore | | | |
| Indonesia | | | |
| | | | |

**B6 Related/connected party transactions/balances**

**(E.g. amount involved, relationships with the issuer and nature of transactions)**

| **IFRS disclosure requirement** | | | |
|---|---|---|---|
| Does IFRS require any specific disclosures related party disclosures? | [We should refer to IAS 24 *Related Party Transactions*.]<br>[] | | |
| **Regulatory requirements and common practice in various jurisdictions** | | | |
| Jurisdictions | 1) Does the jurisdiction require any disclosures regarding related/connected party transactions/balances? | 2) If yes to Q1, what are they? Please specify. Please also include the source of requirements (e.g. references to the applicable listing rules). | What is the common practice in the jurisdiction? In particular, what additional disclosures do bond issuers make in the jurisdiction (in addition to those required by regulators)? |
| Hong Kong | | | |
| China | | | |
| Japan | | | |
| Thailand | | | |
| Philippine | | | |
| Korea | | | |
| Singapore | | | |
| Indonesia | | | |
| | | | |

**B7 Corporate structure of the bond issuers**

<table>
<tr><th colspan="4">IFRS disclosure requirement</th></tr>
<tr><td>Does IFRS require any specific disclosures regarding the corporate structure of the bond issuers?</td><td colspan="3">[If yes, please include the reference to IFRSs and the specific requirements.]</td></tr>
<tr><th colspan="4">Regulatory requirements and common practice in various jurisdictions</th></tr>
<tr><td>Jurisdictions</td><td>1) Does the jurisdiction require any disclosures regarding the corporate structure of the bond issuer (e.g. any special purpose vehicles established)?</td><td>2) If yes to Q1, what are they? Please specify. Please also include the source of requirements (e.g. references to the applicable listing rules).</td><td>What is the common practice in the jurisdiction? In particular, what additional disclosures do bond issuers make in the jurisdiction (in addition to those required by regulators)?</td></tr>
<tr><td>Hong Kong</td><td></td><td></td><td></td></tr>
<tr><td>China</td><td></td><td></td><td></td></tr>
<tr><td>Japan</td><td></td><td></td><td></td></tr>
<tr><td>Thailand</td><td></td><td></td><td></td></tr>
<tr><td>Philippine</td><td></td><td></td><td></td></tr>
<tr><td>Korea</td><td></td><td></td><td></td></tr>
<tr><td>Singapore</td><td></td><td></td><td></td></tr>
<tr><td>Indonesia</td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
</table>

**B8 Use of bond issue proceeds**

| **IFRS disclosure requirement** | | | |
|---|---|---|---|
| Does IFRS require any specific disclosures regarding the use of bond issue proceeds? | [If yes, please include the reference to IFRSs and the specific requirements.] | | |
| **Regulatory requirements and common practice in various jurisdictions** | | | |
| Jurisdictions | 1) Does the jurisdiction require any disclosures regarding the use of bond issue proceeds? | 2) If yes to Q1, what are they? Please specify. Please also include the source of requirements (e.g. references to the applicable listing rules). | What is the common practice in the jurisdiction? In particular, what additional disclosures do bond issuers make in the jurisdiction (in addition to those required by regulators)? |
| Hong Kong | | | |
| China | | | |
| Japan | | | |
| Thailand | | | |
| Philippine | | | |
| Korea | | | |
| Singapore | | | |
| Indonesia | | | |
| | | | |

**Appendix 1 – Adoption of IFRSs and a summary of the applicable IFRSs**

| Jurisdictions | 1) Has the jurisdiction adopted IFRSs (or IFRS equivalent) yet? | 2) If the response to Question 1 is no, is there any plan as to when the jurisdiction will adopt IFRSs? | 3) If the response to Question 1 is no, what is the applicable reporting GAAP in those jurisdictions? And how are those reporting GAAP disclosure requirements different from IFRSs regarding bond issue? |
|---|---|---|---|
| Hong Kong | | | |
| China | | | |
| Japan | | | |
| Thailand | | | |
| Philippine | | | |
| Korea | | | |
| Singapore | | | |
| Indonesia | | | |
| | | | |

## Asia-Pacific Financial Forum

# Interim Report to the APEC Finance Ministers

## ANNEX F

## Self-Assessment Template: Bond Market Data

**Bond Market Data**

Below is a list of types of bond information that may be useful for market participants when making investment decisions. While the list is broad, it should be recognized that governments may not always be in a position to provide certain types of information, such as information on corporate bond yield curves. In some cases, private enterprises including EPFR and Bloomberg have undertaken to provide investors with information that is not necessarily available from public sources. However, it is also important to note that often these are subject to fees.

## I. Total Bonds Outstanding

Information on the total bonds outstanding is helpful for investors for two reasons. From a credit risk standpoint, knowing total bonds outstanding also helps assess the overall indebtedness of the country. Also, the size of the market is also helpful in terms of liquidity. The bigger the bond market, the easier it is to accommodate large fund managers.

a. Government/Corporate – Breaking down the bonds outstanding between government and corporate bonds is helpful as investors may only be interested in one of these markets. The government and corporate categories can also be broken down to provide more granularity. Knowing the breakdown is helpful as characteristics of bonds may be different and it aids in identifying risks in particular sectors. For example, local government bonds or municipal bonds may not necessarily enjoy the same level of credit standing as the central government.

   i. Government Bonds

      1. Treasury Bonds – Bonds issued by the central government, typically for budget purposes
      2. Central Bank Bonds – Bonds issued by the central bank, normally done to control liquidity or the money supply
      3. Local Government Bonds – Bonds issued by local government units
      4. Government Agencies/Government Owned-Controlled Corporations – Some government agencies or government-owned corporations issue bonds directly and in some cases can carry guarantees from the central government.

   ii. Corporate Bonds

      1. Commercial Papers – Short-term debt, usually issued in money markets
      2. Senior Corporate Bonds – Senior corporate debt has priority in claims over subordinated debt.

3. Subordinated Corporate Bonds – Subordinated debt tends to have lower priority. Banks commonly issue these in order to raise capital to meet Basel requirements.

4. Callable/Putable Bonds – Bonds that have embedded options. There is some overlap as subordinated debt typically has a call option included.

5. Asset-backed Bonds – Bonds that have been collateralized with some type of asset. Examples include mortgage-backed securities or covered bonds.

6. Combination- In practice, different types of features can be combined. For example, Tier 2 securiities are a combination of subordination and a call feature. Other types may also be created such as an asset-backed bond that is callable.

b. By Rating – Rating distribution of corporate bond market is helpful also as it helps gauge the credit risk of the corporate bond market.

c. By Tenor – Tenor is important as different investors have different duration requirements. For example, insurance companies seek longer term investments while individuals typically prefer shorter term investments.

Tenor can also be broken down into:

i. Original Maturity

1. Original maturity based on maturity date.

2. Original maturity based on call date/put date

ii. Remaining Maturity

1. Remaining maturity based on maturity date

2. Remaining maturity based on call date/put date.

Liquidity can sometimes differ by the original maturity of the bond and some investors focus on certain maturities as noted above. Remaining maturity is also helpful as it helps identify funding risk. If the average remaining maturity is lower, then the bond market may have some liquidity risk as additional funding will be required when the bonds mature. In addition, the maturity dates may also be subdivided based on call or put dates. This is helpful as it will allow investors to better assess funding risk or investment risk should be the bonds be called or redeemed early.

d. By Sector – A breakdown is useful as corporate bonds are not homogenous. For example, an industry breakdown is useful as some investors seek exposure to certain industries or seek to limit them.

i. Exchange-listed – In some markets, bonds are listed on exchanges and may enjoy greater liquidity and price transparency versus over-the-counter bonds.

ii. Government-owned – Some companies are government-owned or controlled. For these companies, they may enjoy some type of government support that will reduce credit risk.

iii. Industry – Identifying bonds by sector determines which industries are issuing bonds, which provides information on concentration risk or industries that require greater amounts of funding.

iv. Issuers listed on Stock Exchange – The equity securities of some bond issuers are listed on exchanges. This reduces funding risks for some issuers as they will have access to other forms of capital. Also, transparency tends to be greater for exchange-listed companies.

e. Investor Profile – Diversity of the investor base is also important as it helps in funding diversity. The percentage of "real" versus "fast" money is helpful as investments by "real" money tends to be less volatile. Also, knowing if there are foreign investors helps gauge risk of capital flight. Investor profiles can also be broken down by bond types, similar to the discussion above.

i. Government Bonds

1. Treasury Bonds
2. Central Bank Bonds
3. Local Government Bonds
4. Government Agencies/Government Owned-Controlled Corporations

ii. Corporate Bonds

1. Commercial Papers
2. Senior Corporate Bonds
3. Subordinated Corporate Bonds
4. Callable/Putable Bonds
5. Asset-backed

II. Issuance Data

Issuance data is important also as it helps gauge the existing liquidity of the market. Large issuances in the best may suggest that either liquidity is ample or may indicate that future liquidity may be constrained due to the "crowding out" effect.

**i.** Government/Corporate – A distinction between government and corporate bond issuance is helpful as the two markets may be distinct. Government issuance is also helpful for estimating how much of funding needs have been met or can be examined versus government budget performance. This can be broken down further into different types**:**

1. Government Bonds (see prior discussion)
    a. Treasury Bonds
    b. Central Bank Bonds
    c. Local Government Bonds
    d. Government Agencies/Government Owned-Controlled Corporations
2. Corporate Bonds
    a. Commercial Papers
    b. Senior Corporate Bonds
    c. Subordinated Corporate Bonds
    d. Callable/Putable Bonds
    e. Asset-backed
    f. Industry
    g. Exchange-listed
    h. Government-owned
    i. Issuers Listed on Stock Exchange

b. By Rating – Ratings distribution is helpful as it helps identify if there is a good mix of different credit types or the risk of credit bubbles For example, if issuances of lower-rated issuers have been increasing.

c. By Tenor – This is helpful as it determines if issuers have been lengthening or shortening their maturity profiles which helps in the assessment of funding risk in the future.

III. Yield Curve

Having an available yield curve is useful for investors as it helps them assess the relative attractiveness of different bond markets. Yield curves are also important as it is used for valuation of not only bonds but also for derivative instruments such as swaps.

a. Government Yield Curves – Government yield curves are important as they are not only used for evaluating investments in government bonds but as the benchmark risk-free rate yield curves, used for pricing of corporate bonds, equity investments and derivative instruments.

b. Corporate Yield Curves – Corporate yield curves are helpful to assess credit spreads. It can be used for pricing/evaluating corporate bond investments for a given rating such as for issuance or if a certain corporate bond is overpriced or underpriced.

c. Individual Bond Prices – Individual bond prices will be helpful for investors as they seek evaluate individual bonds or companies. They also help monitor investment performance or value existing investments.

The yield curve information can also be broken down into the different bond types to provide additional information on pricing. In addition to type, providing historical data on yields is helpful to help assess in scenarios such as stress or scenario-testing or providing data for economic models. It can also be used for marking-to-market by institutions.

IV. Foreign Fund Flow Data

Foreign Fund Flow Data refers to investment flows by foreign investors. This indicator will help assess the degree of vulnerability of a particular market with respect to "flight to quality". This again can be broken down into bond types. Portfolio flows can also be identified by country. This will identify which countries have excess liquidity and have been investing outside and help highlight if there are risks should certain countries decide to tighten monetary policy and will determine if fund outflows will be likely.

V. Liquidity

Liquidity is an important metric as it determines the ability of a market to absorb fund movements. If liquidity is too low, investors will have difficulty in exiting their investments in a timely manner. Also, ample liquidity helps attract large funds. Similar to the other discussion, liquidity factors can be broken out into the different bond types.

a. Trading Volume – Absolute size of trade volumes is helpful to determine the size of the secondary market and if it is able to accommodate large placements.

b. Bid-ask spreads – Helps investors assess the costs of trading and lower costs while indicating a more or less liquid market

c. Turnover Ratio – Provides information on how active the market is as absolute trading volume is related to outstanding bond size

**Self-Assessment Form**

Please rank how well your market provide information.
Rating Guide

5 Data isfreely available to the public and is reported on a timely basis
4 Data is available to the public subject to fees/subscription; and is reported on a timely basis
3 Data is available to the public but is not available on a timely basis
2 Data is being collected; but not available to the public
1 Data is not available and is not being collected
0 N/A (ie. Foreign fund flow data is not available as capital markets are completely closed to foreign investment)

**Rating**

| | 5 | 4 | 3 | 2 | 1 | 0 |
|---|---|---|---|---|---|---|
| **Total Bonds Outstanding** | | | | | | |
| Aggregate Government | | | | | | |
| Treasury Bonds | | | | | | |
| Central Bank Bonds | | | | | | |
| Local Government Bonds | | | | | | |
| Government Agencies | | | | | | |
| Government-owned/Controlled Corporations | | | | | | |
| Aggregate Corporate | | | | | | |
| Commercial Papers | | | | | | |
| Senior Corporate Bonds | | | | | | |
| Subordinated Bonds | | | | | | |
| Callable/Putable Bonds | | | | | | |
| Asset-backed | | | | | | |
| Combination | | | | | | |
| By Rating (Corporate Bonds) | | | | | | |
| By Tenor | | | | | | |
| Aggregate Government | | | | | | |
| Original Maturity | | | | | | |
| Original Maturity to Put/Call Date | | | | | | |
| Remaining Maturity | | | | | | |
| Remaining Maturity to Put/Call Date | | | | | | |
| Aggregate Corporate | | | | | | |
| Original Maturity | | | | | | |
| Original Maturity to Put/Call Date | | | | | | |
| Remaining Maturity | | | | | | |
| Remaining Maturity to Put/Call Date | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| By Sector (Corporate Bonds) | | | | | | |
| Exchange-listed Bonds | | | | | | |
| Government-owned | | | | | | |
| Industry | | | | | | |
| Issuer Listing on Stock Exchange | | | | | | |
| Investor Profile | | | | | | |
| Aggregate Government | | | | | | |
| Treasury Bonds | | | | | | |
| Central Bank Bonds | | | | | | |
| Local Government Bonds | | | | | | |
| Government Agencies | | | | | | |
| Government-owned/Controlled Corporations | | | | | | |
| Aggregate Corporate | | | | | | |
| Commercial Papers | | | | | | |
| Senior Corporate Bonds | | | | | | |
| Subordinated Bonds | | | | | | |
| Callable/Putable Bonds | | | | | | |
| Industry | | | | | | |
| Asset-backed | | | | | | |
| Combination | | | | | | |
| **Issuance Data** | | | | | | |
| Aggregate Government | | | | | | |
| Treasury Bonds | | | | | | |
| Central Bank Bonds | | | | | | |
| Local Government Bonds | | | | | | |
| Government Agencies | | | | | | |
| Government-owned/Controlled Corporations | | | | | | |
| Aggregate Corporate | | | | | | |
| Commercial Papers | | | | | | |
| Senior Corporate Bonds | | | | | | |
| Subordinated Bonds | | | | | | |
| Callable/Putable Bonds | | | | | | |
| Asset-backed | | | | | | |
| Industry | | | | | | |
| Exchange-listed | | | | | | |
| Government-owned | | | | | | |
| Exchange-listed Bonds | | | | | | |
| Government-owned | | | | | | |
| Industry | | | | | | |
| Issuer Listing on Stock Exchange | | | | | | |
| By Rating (Corporate Bonds) | | | | | | |
| By Tenor | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Aggregate Government | | | | | | |
| Treasury Bonds | | | | | | |
| Central Bank Bonds | | | | | | |
| Local Government Bonds | | | | | | |
| Government Agencies | | | | | | |
| Government-owned/Controlled Corporations | | | | | | |
| Aggregate Corporate | | | | | | |
| Commercial Papers | | | | | | |
| Senior Corporate Bonds | | | | | | |
| Subordinated Bonds | | | | | | |
| Callable/Putable Bonds | | | | | | |
| Industry | | | | | | |
| Exchange-listed | | | | | | |
| Government-owned | | | | | | |
| Asset-backed | | | | | | |
| Combination | | | | | | |
| **Yield Curve** | | | | | | |
| Government Yield Curves | | | | | | |
| Historical Data | | | | | | |
| Treasury Bonds | | | | | | |
| Central Bank Bonds | | | | | | |
| Local Government Bonds | | | | | | |
| Government Agencies | | | | | | |
| Government-owned/Controlled Corporations | | | | | | |
| Corporate Yield Curves | | | | | | |
| Historical Data | | | | | | |
| Commercial Papers | | | | | | |
| Senior Corporate Bonds | | | | | | |
| Subordinated Bonds | | | | | | |
| Callable/Putable Bonds | | | | | | |
| Industry | | | | | | |
| Asset-backed | | | | | | |
| By Rating | | | | | | |
| Individual Bond Prices | | | | | | |
| Government | | | | | | |
| Corporate | | | | | | |
| **Foreign Fund Flow Data** | | | | | | |
| Aggregate Government | | | | | | |
| Treasury Bonds | | | | | | |
| Central Bank Bonds | | | | | | |
| Local Government Bonds | | | | | | |
| Government Agencies | | | | | | |
| Government-owned/Controlled Corporations | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Country | | | | | | |
| Maturity Profile | | | | | | |
| Aggregate Corporate | | | | | | |
| Commercial Papers | | | | | | |
| Corporate Bonds | | | | | | |
| Subordinated Bonds | | | | | | |
| Callable/Putable Bonds | | | | | | |
| Combination | | | | | | |
| Industry | | | | | | |
| Country | | | | | | |
| Maturity Profile | | | | | | |
| **Liquidity** | | | | | | |
| Trading Volume | | | | | | |
| Aggregate Government | | | | | | |
| Treasury Bonds | | | | | | |
| Central Bank Bonds | | | | | | |
| Local Government Bonds | | | | | | |
| Government Agencies | | | | | | |
| Government-owned/Controlled Corporations | | | | | | |
| Aggregate Corporate | | | | | | |
| Commercial Papers | | | | | | |
| Corporate Bonds | | | | | | |
| Subordinated Bonds | | | | | | |
| Callable/Putable Bonds | | | | | | |
| Industry | | | | | | |
| Bid-ask Spreads | | | | | | |
| Aggregate Government | | | | | | |
| Treasury Bonds | | | | | | |
| Central Bank Bonds | | | | | | |
| Local Government Bonds | | | | | | |
| Government Agencies | | | | | | |
| Government-owned/Controlled Corporations | | | | | | |
| Aggregate Corporate | | | | | | |
| Commercial Papers | | | | | | |
| Corporate Bonds | | | | | | |
| Subordinated Bonds | | | | | | |
| Callable/Putable Bonds | | | | | | |
| Industry | | | | | | |
| Combination | | | | | | |
| Turnover Ratios | | | | | | |
| Aggregate Government | | | | | | |
| Treasury Bonds | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Central Bank Bonds | | | | | | |
| Local Government Bonds | | | | | | |
| Government Agencies | | | | | | |
| Government-owned/Controlled Corporations | | | | | | |
| Aggregate Corporate | | | | | | |
| Commercial Papers | | | | | | |
| Corporate Bonds | | | | | | |
| Subordinated Bonds | | | | | | |
| Callable/Putable Bonds | | | | | | |
| Combination | | | | | | |
| Industry | | | | | | |

# Asia-Pacific Financial Forum
# Interim Report to the APEC Finance Ministers

## ANNEX G
## Self-Assessment Template: Investor Rights in Insolvency

Insolvency Regime Self-Assessment Template Outline

- Contract enforcement and dispute resolution
    - Is there an opportunity to be heard in court?
        - There is a fundamental difference between common law and civil law jurisdictions. In civil law jurisdictions, all pleading and submissions are in writing. Common law parties exchange pleadings and documentations but oral submissions are then always given to the court.
    - How quickly do cases come to Court?
        - In some economies such as India, this may take 10-20 years.
        - Options for template:
            - Less than six months
            - Six months to one year
            - One to three years
            - Three to five years network
            - More than five years
    - Availability of real property ownership and mechanisms to support its use
        - If I own a property, can I establish that fact to the outside world?
            - Who can own property? Do you have to be a local resident, can you be a company?
        - How do you evidence your ownership?
            - Is there a recognized document title which facilitates a property transfer?
            - Is it easy to create a valid mortgage encumberance?
            - Is it clear to the lender that the lender can establish their rights to the property so long as the mortgage subsists?
    - Availability of collateral and its enforcement
        - Does the regime allow the establishment of security/collateral?
        - If there is a breach of the underlying obligations, how easy and effective is it for the holder of the security to enforce its rights against that collateral?
    - Delineated provisions for secured transactions, including security interests in intangible property
        - Is there an underlying regime and process which recognizes security as a legal instrument, such that any security rights are established to the outside world?
            - With security rights, you normally start with relatively straight forward rights. Property, real estate, tangible items, then security over things like shares. Intangibles are important but more complicated to establish security rights and register.
                - Security over receivables: You grant money, you make a loan to a company, that company manufactures goods, when it sells a good to a customer, the company has a receivable due – that's a useful source of security. I have security over the money you owe.
                - Security over intellectual property: A company that relies on patents, those patents could be the most valuable items a high

tech company has an a lender will want to take security over that.

- Effective registration systems to cover a range of assets, including real property, share and asset security and intangibles (e.g. intellectual property)
- Appropriate mechanisms for creditor and debtor self-assistance in the absence of the above
    - If none of this exists, how can creditors and debtors resolve their issues? Quite difficult to frame an option of answers.

- Rights of creditors
    - Are these acknowledged?
        - Secured v. Unsecured
    - Date of enactment of relevant legislation (attachment, execution, secured transactions)
        - Subsequent updates
    - Accessibility
        - Language
        - Official Translations
        - Form of storage
    - Registries
    - Efficacy
        - How long does it take to enforce a judgment?
        - How long does it take to get control over collateral?
        - Is it possible to get rights over future advances, after-acquired property?
        - Level of transparency
        - Level of predictability
        - Level of efficiency
- What does the established insolvency law cover?
    - E.g. Corporate insolvency regime, rescue procedures and rights of secured creditors
    - Relevant legislation
        - Date of enactment
            - Subsequent amendments
        - On what regime is it based? Examples include English law and US Bankruptcy code
        - Does the law have equal application for:
            - State-owned enterprises?
            - Large corporations?
            - Small and medium enterprises?
            - Listed companies?
            - Financial institutions?
        - Accessibility
            - Language
            - Official Translations
            - Form of storage

    - Treatment of creditors
        - Is there a moratorium at the opening of proceedings providing for a stay (temporary or otherwise) on the exercise of security rights?
            - If so, does it apply to secured creditors?
            - If so, just for liquidation or also corporate rescues?
        - Is there a cramdown procedure?
- Timing of cases
    - Are the commencement criteria clear?
    - Is there an opportunity to be heard in court?
    - How quickly do cases come to Court?
- Additional Information in relation to collective insolvency proceedings
    - Detailed commencement criteria?
    - Is there framework for extra-judicial negotiations?
    - Are there anti-avoidance ("clawback") provisions?
    - Are there personal liability risks for directors of insolvent companies?
- Supporting regulations and procedures
    - Type? e.g. Liquidation versus corporate rescue
    - Date of enactment
        - Subsequent amendments
    - Accessibility
        - Language
        - Official Translations
        - Form of storage
- Local participants
    - Government
        - Is there a government agency to regulate insolvency processes and the conduct of insolvency officeholders?
    - Judges
        - Are they independent?
        - How do you become a judge? I.e. Experience/Examinations/Choice
        - How are they compensated?  Are they adequately compensated?
        - Is there a list of specialist judges or the judges generalists?
    - Insolvency professionals
        - Who is responsible for applying the regime?
        - How are they trained/what is their background/qualifications?
        - Industry associations for regular training sessions?
        - How are they compensated?

## Contract enforcement and dispute resolution

| | | |
|---|---|---|
| **Is there an opportunity to be heard in court?**<br><br>Explanation: In most civil law jurisdictions, all pleadings and submissions are in writing. In common law jurisdictions parties exchange pleadings and documentation but then present oral submissions to the court. Hence the question. | ☐ Yes<br>☐ No | Opportunity to provide further detail: |
| **On average how quickly do cases come to court?**<br><br>Explanation: This is a key practical consideration. | ☐ Less than six months<br>☐ Six months to one year<br>☐ One to three years<br>☐ Three to five years<br>☐ More than five years | Opportunity to provide further detail: (Please provide data to support your answer.) |
| **Availability of collateral and its enforcement**<br><br>Explanation: (a) How easy and effective is it to take collateral? and<br>(b) if there is a breach of the underlying obligations, how easy and effective is it for the holder of the security to enforce its rights against that collateral? | Does the regime allow the establishment of security/collateral?<br>☐ Yes<br>☐ No<br><br>Does enforcement of collateral require a court process?<br>☐ Yes<br>☐ No<br><br>On a scale of 1 to 10 (10 being the easiest), how easy is it to enforce collateral in a timely fashion and make a meaningful recovery?<br>☐ | Opportunity to provide further detail: (Please provide evidence to support the scale rating with respect to collateral enforcement) |
| **Availability of real property ownership and mechanisms to support its use**<br><br>Explanation: If I own a property or as a lender have taken security over a property, can I establish that fact to the outside world? | Who may own property (check all that apply)?<br>☐ Local individuals<br>☐ Foreign individuals<br>☐ Local companies<br>☐ Foreign companies | Opportunity to provide further detail: |

| | | |
|---|---|---|
| | Is ownership evidenced through a transferable title evidence of which is available to third parties?<br>☐ Yes<br>☐ No<br><br>Is it easy to create a valid mortgage encumbrance whereby a lender can establish rights to the property?<br>☐ Yes<br>☐ No | |
| **Delineated provisions for secured transactions, including security interests in intangible property**<br><br>Explanation: Is there an underlying regime and process which recognizes security as a legal instrument such that any security rights are established to the outside world. Does this cover both tangible securities, e.g. property or real estate, and intangible items, e.g. receivables due from a customer, or intellectual property rights? | Is security recognized as a legal instrument?<br>☐ Yes<br>☐ No<br><br>Does it cover tangible securities?<br>☐ Yes<br>☐ No<br><br>Does it cover intangible securities?<br>☐ Yes<br>☐ No | Opportunity to provide further detail: |
| **Are there effective registration systems to prove the existence of security and related rights to the following assets:** | Real property?<br>☐ Yes<br>☐ No<br><br>Share and asset securities?<br>☐ Yes<br>☐ No<br><br>Intangibles?<br>☐ Yes<br>☐ No | Opportunity to provide further detail: |

| | | |
|---|---|---|
| **In the absence of the above, are there appropriate mechanisms for creditors and debtors to resolve their issues?** | ☐ N/A (The above mechanisms exist)<br>☐ Yes<br>☐ No | Opportunity to provide further detail. Please provide further detail if the answer is yes: |

Asia-Pacific Financial Forum

# Interim Report to the APEC Finance Ministers

## ANNEX H

## Constraints on Promoting Long-Term Investment in the Asia-Pacific Region

**Regulatory issues**

| Key issues | Problems/Constraints | Solutions/Recommendations |
| --- | --- | --- |
| Bank-centric regulations | Application of regulatory requirements derived from bank-oriented regulations may negatively impact insurers' role to provide long-term investments and stabilize the financial systems. | Insurance regulations should take into account the specific nature of the insurance business and should not apply regulations which are targeted for bank deposits or other financial products with short-term liquidity needs. |
| | High risk charges for long-term investments, including infrastructure projects and equities may discourage insurers and pension funds to provide such investments. | Avoid bank-centric capital-weighted rule and consider the characteristics of long term assets supporting long-term liabilities, as well as the effect of asset diversification. |
| | Capital constraints on traditional long-term products may drive the companies to shift to short-term investment products, making long-term investments hard to be justified. | Capital charges should be looked into, for the companies to have incentives to promote long-term products, taking into account the interaction between long-term assets and liabilities. |
| | Bank-oriented regulations with focus on systemic risks and inter-connectedness, not properly reflecting the nature of insurance and pension funds, may dis-incentivize insurers to stabilize the financial system and market, rather than mitigate systemic risks. | Insurance and pension regulatory framework should holistically promote the role of insurers and pension funds to support macro-economy, sustainable development, social security, and long-term insurance protection, and pay due care to the issue of pro-cyclicality. |
| | It may affect negatively on the insurers' and pension funds' equity and long-term debt instruments and efficient risk management tools, such as hedging instruments. | Regulations should be designed in a way to promote and incentivize the insurers' and pension providers' role to stabilize the financial system and market and its ability to manage risks efficiently. |
| Short-term oriented economic regime | Economic valuation may produce a significant volatility for long-term business, which may not be relevant to the insurers' capacity to meet long-term obligations | Economic based regime should have a long-term vision.<br>Avoid replacing the existing regulatory regimes simply with a regime based on an economic based regulations |
| | If such a regime is used for regulatory interventions, insurers with no concern in solvency positions for the foreseeable future may be forced to take remedial actions, including the exit from long-term business and investments, in response to short-term fluctuations in financial markets. | Avoid the introduction of a regulatory regime which would require immediate regulatory actions in response to short-term market fluctuations |
| | Short-term oriented regimes tend to capture the risk assessment with a snapshot and consider long-term business and long-term investments excessive risk taking. | Long-term nature of the business model and illiquid nature of liabilities should be properly taken into account, when designing the regulatory regime. |
| | Short-term oriented economic solvency regimes may incentivize | Measures should be taken to mitigate impacts on long-term protection |

| | | |
|---|---|---|
| | insurers to transfer risks to customers, shift away from long-term protection business and investments, and discourage them from investing assets other than fixed income assets. | business and the assets supporting such contracts<br><br>(See also Accounting issues) |
| "One-size-fits-all" models | There are a variety of insurance and pension products, insurers' and pension providers' roles, needs and consumer behavior, and development stage across the markets.<br>The adoption of regulatory requirements based on "one-size-fits-all" models would not capture the diversity that exists in the region and may produce unexpected negative consequences for insurance and capital markets, as well as social security system. | Consider an approach to start from the regulatory framework in each jurisdiction, which has been sufficiently evolved and tested on the characteristics of each jurisdiction, and harmonize those regimes from a unified point of view. |
| | Due to the difference in business models and existing regulatory framework, the application of prescriptive international standards would not ensure the overall comparability or level playing field in the region. | International standards should be principle-based and aim to achieve the comparable outcome by taking into account the diversity in the region, rather than imposing identical prescriptive requirements in jurisdictions. |
| | A model based on one jurisdiction may not meet the regulatory objectives in other jurisdictions. | Consider the use of different valuation approaches for different purposes.<br>The use of existing regulatory regime in each economy may be an option. |
| **Accounting issues** | | |
| Key issues | Problems/Constraints | Solutions/Recommendations |
| Volatility in the balance sheet | Scope – treatment of participating policies | |
| | IASB's proposed "mirroring approach"[1] would limit the scope to contracts which require an entity to hold underlying items and specify a link between the payments to the policyholder and the returns on those items.<br>It would not capture a wide range of participating policies and products that are sold in the Asia Pacific region. | The scope of contracts for which the insurance liabilities and the related assets are consistently measured and presented, reflecting the assets-liabilities interaction could be expanded to include all contracts, including those where all or part of the cash flows are dependent on returns from underlying items. |
| | It would result in non-economic volatility in balance sheet of insurers selling certain long-term products, which may produce unintended consequence for insurers' ability to support long-term investment, sustainable economic growth and market stability | Appropriate measures should be taken to minimize pro-cyclicality and disincentives for insurers to provide long-term business and long-term investments.<br>In setting those measures, the different business models, role of insurers and development stage |

[1] Mirroring approach: For contracts meeting the criteria in paragraph 33 of the IASB Insurance Contracts Exposure Draft (ED), an entity determines the fulfillment cash flows that are expected to vary directly with returns on underlying items and measures those fulfillment cash flows on a different basis from the other fulfillment cash flows. An entity shall decompose the cash flows in a way that maximizes the extent to which the measurement both: (a) expresses the cash flows in a way that illustrates the extent to which they are expected to vary with returns on underlying items; and (b) maximises the minimum fixed payment that the policyholder will receive.

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| | | should be taken into account. |
| | Discount rate for long-duration products | |
| | Discount rate largely based on the current risk-free rate would not reflect the asset liability interaction of the insurers, and may bring volatility in the balance sheet that may not represent the underlying economics. | The choice of discount rate should be reflective of the business model of the issuer of the contract. |
| | Significant volatility may occur where there is an observable but not deep and liquid market.<br>The rate may not be observable. | Measures should be taken to avoid short-term fluctuations in the medium to long-term.<br>One solution may be grading from market consistent rate to long-term average rate. |
| Volatility in the income statement | Short term fluctuation based on the current market or fair value measurements may not reflect the long-term nature of the business and would not provide useful information to assess assets or projects in the long run. | The use of OCI both for insurance liabilities and corresponding assets (i.e. IFRS4 and IFRS9) should be allowed to reflect the long-term nature of the business. |
| | The use of OCI [2] for presenting changes in discount rates is potentially a significant improvement, but not in isolation.<br>When assets are valued and presented differently, volatility in the income statement may occur due to the accounting mismatch. | The OCI solution should not be mandatory but optional to avoid accounting mismatch, taken into account different business models.<br>The population of assets qualifying for OCI treatment may also be expanded. |
| Complexity | The currently proposed model is highly complex and would impose practical burdens and costs on insurers, particularly for those with long-duration products.<br>Lack of understandability would reduce transparency. | Unnecessary complexities should be removed, and understandability for preparers and users should be improved. |
| | The proposed requirement for bifurcation of cash flows is difficult to implement and inconsistent with how contracts, typically long-term products, are designed and managed. | One measurement basis should be used for all insurance contracts without bifurcation of cash flows. |
| Consistency | Proposed treatment of changes in estimated cash flows is not consistent with that of discount rate, and would not reflect the economic reality faced by insurers. For example, changes in the present value of future profits are partly reported in OCI (unrealized investment gains/losses) and partly reported in CSM [3] (mortality and | The treatment of changes in estimated cash flows and that of discount rate should be designed in a way to reflect the economic reality faced by insures and to pay particular due care to adverse consequences for long-duration contracts where interest rates decline. |

[2] OCI (Other Comprehensive Income) is a component of total equity which includes, but not limited to, unrealized gains or losses from available for sales securities.

[3] CSM (Contractual Service Margin) is defined as a component of the measurement of the insurance contract representing the unearned profit that the entity recognizes as it provides services under the insurance contract.

| | | |
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| | expense gains/losses related to future periods). It would not therefore provide relevant and useful information to users. This problem is significant for insurers with traditional long-duration products at transition. | |
| Transition requirements | The retrospective measurement[4] for existing and past long-duration contacts would be extremely burdensome and costly and often practically impossible due to lack of data, and may have significant financial impact. | Flexibility should be given in adopting transition requirements to reduce operational difficulties and minimize financial impact at transition, reflecting conventional accounting practice.<br>Complexity should be significantly reduced.<br>One solution may be to take a full prospective approach. |
| Presentation | The proposed earned premium volume metric[5] is unhelpful and incomparable with revenues reported by insurers not using IFRS.<br>This problem is significant for insurers with traditional long-duration products. | The metric should be comparable to conventional accounting practice, in order to maintain comparability, and avoid competitive disadvantage for insurers using IFRS. |
| | Neither the insurance industry nor investors/analysts/policyholders use or understand the proposed metric. | The metric should reflect the need of general users.<br>Premium received is widely recognized as the most essential and reliable information both for users and preparers. |
| | Separation of investment components[6] from revenues and claims payment would be practically difficult and would not reflect the business reality.<br>This problem is significant for insurers with traditional long-duration products. | Investment components from revenues and claims from traditional long-duration products should not be separated.<br>The different nature of insurance contracts from bank deposits and pure investment contracts should be properly reflected. |
| Field testing | Testing is selective and does not consider the interaction with the proposed financial instruments standards. | Another series of full "real world" field testing is needed to avoid unintended consequences, including the impact on the ability of insurers to provide long-term business and investments |

[4] Retrospective measurement: IAS 8 specifies when it would be impracticable to apply this [draft] Standard to measure an insurance contract retrospectively. In those situations, an entity shall, at the beginning of the earliest period presented measure the insurance contract as the sum of: (i) the fulfillment cash flows in accordance with this [draft] Standard; and (ii) an estimate of the remaining contractual service margin, using the information about the entity's expectations at initial recognition of the contract that were determined in accordance with paragraph C6 of the ED.

[5] The proposed earned premium volume metric: Accordingly, insurance contract revenue can also be expressed as the sum of: (a) the latest estimates of the expected claims and expenses relating to coverage for the current period excluding those recognized immediately in profit or loss in accordance with paragraphs 60(a) and 60(d) of the ED. That amount relates to the latest estimates of the expected claims and expenses before the claim is incurred and excludes any repayments of investment components that are included in the latest estimates of the expected claims; (b) the change in the risk adjustment; (c) the amount of the contractual service margin recognized in profit or loss in the period; and (d) an allocation of the portion of the premium that relates to recovering directly attributable acquisition costs. The entity allocates the part of the premium relating to the recovery of those costs to each accounting period in the systematic way that best reflects the transfer of services provided under that contract.

[6] The investment component is defined as the amounts that an insurance contract requires the entity to repay to a policyholder even if an insured event does not occur.

| | | |
|---|---|---|
| | | and retirement security in the region. |
| | Quality may be compromised by a compressed completion process. In such case, there will be significant challenges faced by the region in the implementation phase. | It is preferable to have a set of high quality of standards that have been adequately tested.<br>That would facilitate the implementation of the standards in the region. |
| **Market issues** | | |
| Key issues | Problems/Constraints | Solutions/Recommendations |
| Underdeveloped capital market | | Collaborate with Capital Markets Work Stream |
| | Paucity of long-term fixed income assets (i.e. longer than 20 years) | Facilitate development of capital markets, particularly in emerging markets, including more transparency and market infrastructure |
| | Local currency bond markets for both sovereign and corporate not deep enough | Development of local capital markets |
| | Local currency capital markets often are too small to support. | Integration of regional capital markets to achieve economies of scale; through common platforms for bond issuance or EU-style passport concept |
| | Inflation linked bonds are available only in a few economies | Issue and promote inflation linked bonds |
| Few viable projects that can attract market financing | | Collaborate with Asia Pacific Infrastructure Partnership and ABAC |
| | High political/regulatory risk with few options for mitigation | Use risk mitigation measures like ADB or IFC guarantees (e.g. CGIF) |
| | Poor governance/rule of law | Develop stronger credit assessment, rating agencies and bankruptcy regime |
| | Poor project preparation (e.g. unclear objective and criteria, missing technical details, unrealistic assumptions, faulty financial analysis) | See ABAC Enables of Infrastructure Investment Checklist |
| | Faulty PPP structures | See above |
| Lack of infrastructure financial instruments | | Collaborate with FMI/Cross Border Practices Work Stream |
| | Few market instruments that allow risk associated with infrastructure project financing to be allocated to creditors based on risk and return appetite. | Create new forms of securitization or restructuring that splits risk by maturity and risk profile (e.g. banks take shorter maturities and construction risk and insurers take longer maturities) |
| | Infrastructure tends to have lower credit rating which blocks participation by insurers | Use MDB credit wraps to enhance credit rating<br>Consider a sovereign backstop |
| | Infrastructure bonds are not standardized, in particularly between markets, and therefore not marketable in a single efficient pool | Common multi-economy platforms for debt issuance; integration of regional capital markets; harmonize bond issuance processes and documentation; work with banks to standardize project financing documentation |
| | Lack of data on risk profile of infrastructure projects of long term assets which may result in | Project to collect more global data on infrastructure financing vehicles and default performance |

| | | |
|---|---|---|
| | excessively high capital charge | |
| Lack of market instruments to manage portfolio risk | | Collaborate with Capital Markets Work Stream |
| | Undeveloped derivative markets, including interest rate swaps, especially long dated ones, and bond futures | Liberalize and develop hedging and derivatives with appropriate supervision oversight |
| | Currency and maturity hedging is costly or restricted by regulation | Avoid "one-size-fits-all" approach in the Asia Pacific region, taking into account the development of the markets in each economy |
| | Hedges are more costly and less available due to requirement to trade on exchanges and high capital risk weightings | See above |
| Constraints on insurance business which limits insurance penetration and mobilization of long-term capital | Demand side | |
| | Restrictions on new product development, including slow approval process | Regulations should encourage product innovation and flexibility |
| | Restrictions on competition | Promote competition in project and pricing; promote liberalization and access to foreign capital and capacity as a key driver for growth and development of insurance markets |
| | Lack of tax incentives for long-term savings through insurance | Create tax incentives for long-term savings as a public good, in order to build saving culture among consumers |
| | Lack of consumer awareness of insurance | Financial literacy programs for insurance |
| | Lack of mandatory insurance schemes | Create mandatory retirement programs |
| | Lack of private insurance options for retirement | Create a private sector pillar consistent with the World Bank's Three Pillar approach for pensions |
| | Supply side | |
| | Withholding tax and capital gains tax discourage investors for local currency bonds | Device tax advantages to help long term investors |
| | Regulatory restrictions on investment | As the industry matures, ease restrictions on investment consistent with appropriate prudential standards; regulators and industry exchange on best practice in investment strategies for institutional investors |
| **Operational issues** | | |
| Key issues | Problems/Constraints | Solutions/Recommendations |
| Weakness in credit rating | Weak capacity for credit assessments; lack of comparable credit rating could lead to excessive capital requirements for infrastructure or completely block such investments; some economies lack capable credit agencies | Encourage transparency of credit ratings by permitting international credit rating agencies to enter markets and by promoting development of local credit rating agencies |
| Lack of experience | Institutional investors lack experience in investing in infrastructure | As opportunities increase, insurance companies like to hire needed expertise |

| | | |
|---|---|---|
| Uncertainty in legal framework | Lack of clarity in areas of creditors' rights and resolution processes | Develop clear laws and regulations regarding resolution; in the event of a default allow those mechanisms to operate and monitor their impact |

## Asia-Pacific Financial Forum

# Interim Report to the APEC Finance Ministers

## ANNEX I

## Volatilities in the Financial Market and Global Imbalances

## (Institute for International Monetary Affairs Paper)

Institute for International Monetary Affairs（IIMA）
公益財団法人 国際通貨研究所

# Volatilities in the Financial Market and Global Imbalances

3 June, 2014

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**Summary**

In recent years, economists have been raising their interest in the implications that the investor sentiments can have on the financial market. More and more researches have been conducted by many economists in many countries on the relationship between indices representing investor sentiments and the volumes of cross-border transactions or prices of risk-involving financial assets.

The Institute for International Monetary Affairs (IIMA) started in October 2013 to publish an index (IIMA-GMVI) that is intended to comprehensively indicate the movement of investor sentiment (or appetite) for the risks in the global financial market. This index is a composite of daily volatilities calculated from the daily movements in stock indices, government bond yields, and foreign exchange rates on major markets in the world and we try to measure the investors' risk appetite from the magnitude of the volatilities shown by this index.

This report is intended to consider if or not we can control the spillover effect of financial shocks by analyzing the characteristics of the volatilities in the index the IIMA has developed. More precisely, we would like to examine this by focusing on the relationship between volatility index and global imbalances (i.e., accumulation of imbalances in the macro-economy).

In Chapter 1, using our IIMA-GMVI, I will examine what the risk indicators, including the volatility index, which would represent the investor sentiments are like and what the movement of those indices would suggest.

In Chapter 2, I will try to define the global imbalance and examine what kind of situation the imbalance would represent. At the same time, I will briefly introduce the scheme of the Macroeconomic Imbalance Procedure developed by the European Commission.

In Chapter 3, I will examine the relationship between the risk indicators and global imbalances and confirm that there is a correlation between investor sentiment on the financial market and an imbalance in the macro-economic indicators, and finally point out the possibility that a prolonged period of low volatility in the financial market, which represents continued favorable investor sentiment for investment, might lead to an unwanted accumulation of macroeconomic imbalance.

## １． IIMA's Attempt for IIMA Global Market Volatility Index

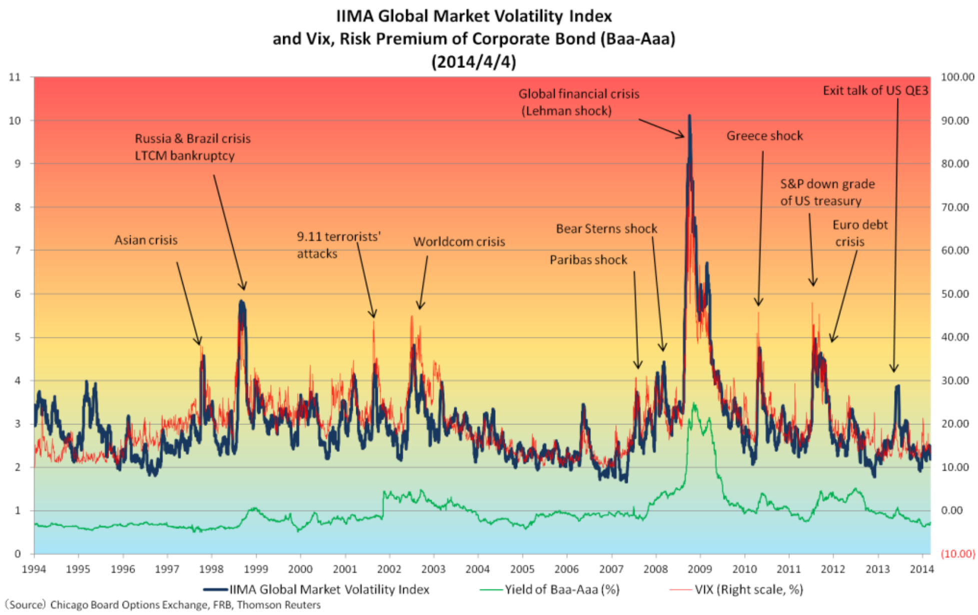
The IIMA started to compile and publish in October 2013 IIMA Global Market Volatility Index (IIMA-GMVI) to provide a measurement for risk appetite that the global investors have toward the financial products in the markets[1]. The index is a composite of measurements calculated from the

[1] The index is published on the website of the IIMA (http://www.iima.or.jp/research/ppp/index.html ). Refer to Takenaka & Inoue (2013) for its background and the ways of calculation.

volatilities (standard deviation of daily changes in preceding 20 business days) of the prices of equities, bonds, and foreign exchanges in the major financial markets in the world which are adjusted for the average of each category's volatilities since January 1994 to be equal to 1 (to show 3 in the overall index). The larger is the index value, it suggests the more volatile and unstable market where investors are more inclined to avoid risk-taking. On the other hand, the smaller value reflects the more stable market where investors are more inclined to take risks.

Chart 1 shows the movement of the IIMA-GMVI since January 1994. It has shown high values every time the world financial markets were tossed by such unexpected crises as the Asian currency crisis, LTCM bankruptcy, WorldCom scandal, the 9.11 terrorist attacks in the United States, global financial crisis, Greece shock, European sovereign crisis, start of exit talk of the US QE3, .etc. The highest value was recorded on October 31 of 2008 when the financial markets were in the midst of the global financial crisis following the Lehman shock. After the global financial crisis, the index recorded the highest value on August 30 of 2011 when the market participants were worried about the downgrading of the US government bonds and the contagion of the European sovereign crisis to Italy and Spain.

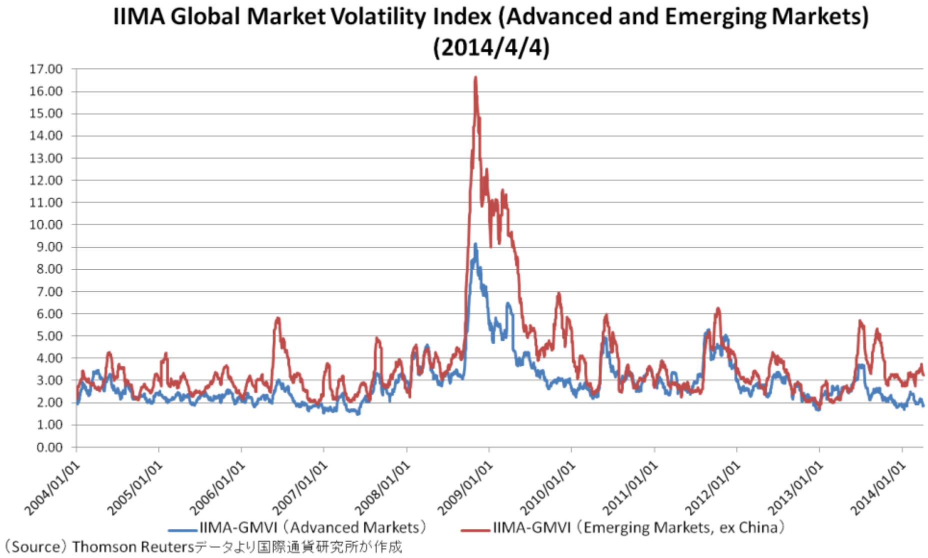
**Chart 1 IIMA Global Market Volatility Index**




Source: Institute for International Monetary Affairs

The initial intention of the IIMA for compiling IIMA-GMVI was to comprehensively assess the risk appetite of investors in the global financial markets, but since the index is based on the volatilities in the individual markets, the IIMA decided to compile sub-indices as IIMA-GMVI (Advanced Markets) and IIMA-GMVI (Emerging Markets) to sense the different attitudes of investors, if any, toward the advanced and emerging countries, and started to publish them from January 2014.

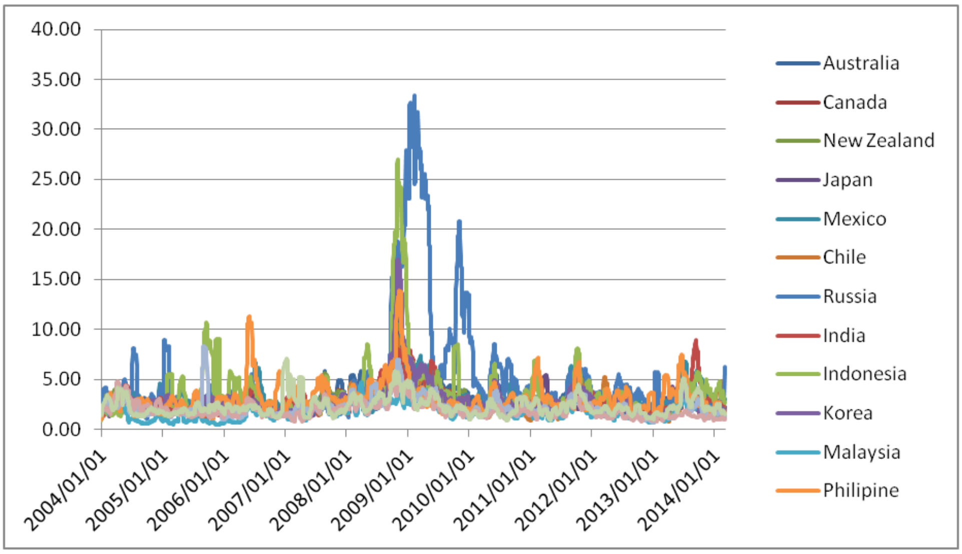
**Chart 2 IIMA-GMVI(Advanced and Emerging Markets)**




Source: Institute for International Monetary Affairs

Although they are not openly published, the IIMA has also compiled volatility index by individual countries to watch and assess the movement in the individual markets, thus expanding the range of application of the IIMA-GMVI index.

**Chart 3　Volatility indices for individual markets(trial calculation)**




Source: Calculated and compiled by author by using Thomson Reuters data

There are other indices than IIMA-GMVI that represent the investors’ appetite to take risks for financial products. Most widely used in the world is the VIX index which is calculated from the implied volatility of S&P500 Options prices in the U.S., and yield differentials published by the FRB between the Aaa rated and the Baa rated corporate bonds in the United States.

Both the VIX and the IIMA-GMVI make indexation of volatilities. While the VIX deals with the implied volatility, the latter calculates historical volatilities. In addition, as compared to the VIX which covers only stock prices in the US, the IIMA-GMVI covers the equities, bonds, and foreign exchanges of world’s 22 countries, thus making it possible to assess the conditions of the world financial markets more comprehensively than the VIX.

Chart 4 shows correlations between famous risk indices and volatility indices for individual countries (composite index of volatilities of stocks, bonds, and foreign exchange rates against the US dollar).

**Chart 4: Correlations between famous risk indices and volatility indices for individual countries**

The Correlations between each Volatility Index

| | Australia | Canada | New Zealand | Japan | Mexico | Chile | Russia | India | Indonesia | Korea | Malaysia | Philippine | Singapore | Taiwan | Thailand | VIX | IIMA-GMVI | Spread | Developed | Emerging |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Australia | | 0.94 | 0.94 | 0.77 | 0.81 | 0.81 | 0.65 | 0.68 | 0.77 | 0.90 | 0.63 | 0.55 | 0.72 | 0.65 | 0.49 | 0.89 | 0.95 | 0.76 | 0.94 | 0.88 |
| Canada | 0.94 | | 0.89 | 0.70 | 0.76 | 0.74 | 0.73 | 0.65 | 0.75 | 0.89 | 0.60 | 0.51 | 0.71 | 0.66 | 0.44 | 0.91 | 0.96 | 0.80 | 0.95 | 0.90 |
| New Zealand | 0.94 | 0.89 | | 0.74 | 0.79 | 0.78 | 0.67 | 0.66 | 0.70 | 0.86 | 0.65 | 0.53 | 0.71 | 0.68 | 0.48 | 0.84 | 0.92 | 0.75 | 0.90 | 0.87 |
| Japan | 0.77 | 0.70 | 0.74 | | 0.65 | 0.59 | 0.49 | 0.55 | 0.62 | 0.76 | 0.53 | 0.60 | 0.59 | 0.56 | 0.41 | 0.64 | 0.76 | 0.56 | 0.75 | 0.69 |
| Mexico | 0.81 | 0.76 | 0.79 | 0.65 | | 0.74 | 0.57 | 0.68 | 0.74 | 0.82 | 0.47 | 0.60 | 0.62 | 0.48 | 0.44 | 0.71 | 0.82 | 0.62 | 0.77 | 0.84 |
| Chile | 0.81 | 0.74 | 0.78 | 0.59 | 0.74 | | 0.49 | 0.61 | 0.67 | 0.75 | 0.61 | 0.54 | 0.77 | 0.69 | 0.64 | 0.73 | 0.79 | 0.64 | 0.76 | 0.73 |
| Russia | 0.65 | 0.73 | 0.67 | 0.49 | 0.57 | 0.49 | | 0.60 | 0.51 | 0.66 | 0.47 | 0.27 | 0.47 | 0.42 | 0.28 | 0.74 | 0.77 | 0.83 | 0.71 | 0.88 |
| India | 0.68 | 0.65 | 0.66 | 0.55 | 0.68 | 0.61 | 0.60 | | 0.54 | 0.65 | 0.62 | 0.45 | 0.56 | 0.48 | 0.55 | 0.64 | 0.72 | 0.68 | 0.66 | 0.77 |
| Indonesia | 0.77 | 0.75 | 0.70 | 0.62 | 0.74 | 0.67 | 0.51 | 0.54 | | 0.82 | 0.33 | 0.59 | 0.65 | 0.49 | 0.43 | 0.67 | 0.76 | 0.61 | 0.71 | 0.77 |
| Korea | 0.90 | 0.89 | 0.86 | 0.76 | 0.82 | 0.75 | 0.66 | 0.65 | 0.82 | | 0.54 | 0.59 | 0.70 | 0.68 | 0.48 | 0.83 | 0.91 | 0.75 | 0.88 | 0.89 |
| Malaysia | 0.63 | 0.60 | 0.65 | 0.53 | 0.47 | 0.61 | 0.47 | 0.62 | 0.33 | 0.54 | | 0.40 | 0.60 | 0.57 | 0.53 | 0.60 | 0.66 | 0.57 | 0.64 | 0.60 |
| Philippine | 0.55 | 0.51 | 0.53 | 0.60 | 0.60 | 0.54 | 0.27 | 0.45 | 0.59 | 0.59 | 0.40 | | 0.43 | 0.44 | 0.41 | 0.46 | 0.56 | 0.39 | 0.52 | 0.54 |
| Singapore | 0.72 | 0.71 | 0.71 | 0.59 | 0.62 | 0.77 | 0.47 | 0.56 | 0.65 | 0.70 | 0.60 | 0.43 | | 0.58 | 0.49 | 0.64 | 0.72 | 0.57 | 0.71 | 0.67 |
| Taiwan | 0.65 | 0.66 | 0.68 | 0.56 | 0.48 | 0.69 | 0.42 | 0.48 | 0.49 | 0.68 | 0.57 | 0.44 | 0.58 | | 0.43 | 0.58 | 0.65 | 0.45 | 0.63 | 0.58 |
| Thailand | 0.49 | 0.44 | 0.48 | 0.41 | 0.44 | 0.64 | 0.28 | 0.55 | 0.43 | 0.48 | 0.53 | 0.41 | 0.49 | 0.43 | | 0.38 | 0.49 | 0.38 | 0.45 | 0.48 |
| VIX | 0.89 | 0.91 | 0.84 | 0.64 | 0.71 | 0.73 | 0.74 | 0.64 | 0.67 | 0.83 | 0.60 | 0.46 | 0.64 | 0.58 | 0.38 | | 0.92 | 0.82 | 0.92 | 0.87 |
| IIMA-GMVI | 0.95 | 0.96 | 0.92 | 0.76 | 0.82 | 0.79 | 0.77 | 0.72 | 0.76 | 0.91 | 0.66 | 0.56 | 0.72 | 0.65 | 0.49 | 0.92 | | 0.84 | 0.98 | 0.94 |
| Spread | 0.76 | 0.80 | 0.75 | 0.56 | 0.62 | 0.64 | 0.83 | 0.68 | 0.61 | 0.75 | 0.57 | 0.39 | 0.57 | 0.45 | 0.38 | 0.82 | 0.84 | | 0.81 | 0.86 |
| Developed | 0.94 | 0.95 | 0.90 | 0.75 | 0.77 | 0.76 | 0.71 | 0.66 | 0.71 | 0.88 | 0.64 | 0.52 | 0.71 | 0.63 | 0.45 | 0.92 | 0.98 | 0.81 | | 0.88 |
| Emerging | 0.88 | 0.90 | 0.87 | 0.69 | 0.84 | 0.73 | 0.88 | 0.77 | 0.77 | 0.89 | 0.60 | 0.54 | 0.67 | 0.58 | 0.48 | 0.87 | 0.94 | 0.86 | 0.88 | |

* period: 2004-2013

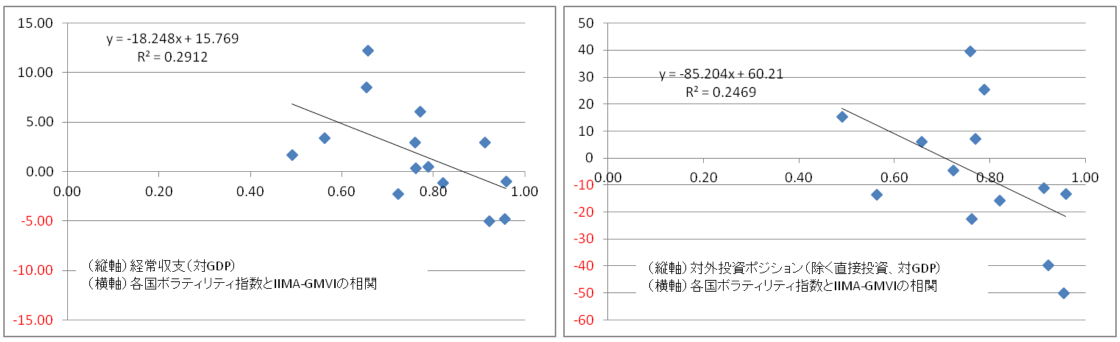
Source: Calculated and compiled by author by using Thomson Reuters data

If there exists a high correlation between the IIMA-GMVI and the volatility index in an individual country, it can be interpreted that the market sentiment in an individual country and its volatility tends to be more affected by the movement of the global market sentiment and its volatility.

Chart 5 shows that the correlation is stronger in such advanced countries as Australia, Canada, New Zealand where capital transactions are liberalized and current accounts are in deficit, and also in emerging countries like Korea and Indonesia which have a large net indebted position in external investment excluding direct investment. On the other hand, the correlation is small in the current account surplus countries in South East Asia like the Philippines and Thailand (Chart 5).

There is a possibility that in these countries, some inherent factors such as capital controls may have affected the volatilities in their financial markets.

**Chart 5: Individual Volatility Indices and their correlations with IIMA-GMVI and current accounts (left) /external investment positions(right)**




Source: Compiled by the author based on data from the IIMA and the IMF

※Averages of 2004-2013 for both current accounts (in % of GDP), and external investment positions (in % of GDP) for

Australia, New Zealand, Canada, Japan, Mexico, Chile, Russia, India, Indonesia, Korea, Malaysia, the Philippines, Thailand, and Taiwan (current account only)

## 2. Efforts of the European Commission in the Macroeconomic Imbalance Procedure

Time and again, financial crises have occurred since the capitalism has prevailed in the world economy. Various reasons can be offered, but one of the main reasons could be the accumulation of macroeconomic imbalances. Therefore it is critical to monitor the macroeconomic imbalances in order to prevent a financial crisis, or to minimize the pains from it at least.

Frankel and Salaveros (2010) introduced the cases where many economists have tried in the past to use various economic indicators as a leading indicator to detect a possible financial crisis. They pointed out that, among others, foreign exchange reserves and overvaluation of the real effective exchange rates had affected the magnitude of the shocks.

The Macroeconomic Imbalance Procedure (MIP) introduced by the European Commission after the European sovereign debt crisis is one of the frameworks to monitor the macroeconomic imbalances that may lead to a financial crisis[2]. The MIP was introduced in 2011 and, based on the common scoreboard of macroeconomic indicators, it works as a mechanism to identify and monitor the macroeconomic imbalances and competitive gaps of the member countries. Using the various economic indicators on the scoreboard, the European Commission comprehensively assesses the existence/non-existence of an excessive external imbalance or the loss of competitiveness in each member country. Those indicators include 5 indicators for external imbalance and 6 indicators for domestic imbalance that cover both flow and stock aspects. Each country’s achievements in these indicators are reviewed every year and complimented by other supplementary indicators. Much progress has been made to prevent a recurrence of financial crises such as seen in the past. The scoreboard of indicators also plays a role of important communication between the Commission and member states and a threshold value is given to each indicator based on the experiences learned from the past economic crises.

### Chart 6: MIP Scoreboard

| External Imbalance | | Internal Imbalance | |
|---|---|---|---|
| Indicators | Threshold Point | Indicators | Threshold Point |
| Current Account Balance as % of GDP (3 year backward moving average of ) | -4%/+6% | Deflated House prices (y-o-y % change) | +6% |
| Net International Investment Position as % of GDP | -35% | Private Sector Credit Flow as % of GDP | 15% |
| Real Effective Exchange Rate (% change (3 years)) | ±5% (Euro Area)<br>±11% (Non-Euro Area) | Private Sector Debt as % of GDP | 160% |
| Export Market Share (% change (5 years)) | -6% | General Government Debt as % of GDP | 60% |
| Nominal Unit Labor Cost (% change (3 years)) | +9% (Euro Area)<br>+12% (Non-Euro Area) | Unemployment Rate (3 year backward moving average) | 10% |
| | | Total Financial Sector Liabilities (y-o-y % change) | +16.5% |

Source: Compiled by the author based on European Commission data

2 Refer to European commission（2012）for Macroeconomic Imbalance Procedure.

## 3. Relationship between Risk indicators and Macroeconomic Imbalances

Many researchers in the world find that the improvement of investor sentiments (risk appetite) in the financial markets tend to increase cross-border capital transactions. Rey (2013) verified that the stability of the VIX, one of the risk indicators, tends to stimulate cross-border capital transactions regardless of the exchange rate regimes, and therefore free capital transactions and stability of the foreign exchange rate with discretionary monetary policies are mutually incompatible. She argues that the trilemma of the international finance does not actually exist in the world of global capital flows, and that it has been transformed into a dilemma where "discretionary monetary policies are possible only if the capital account is managed."

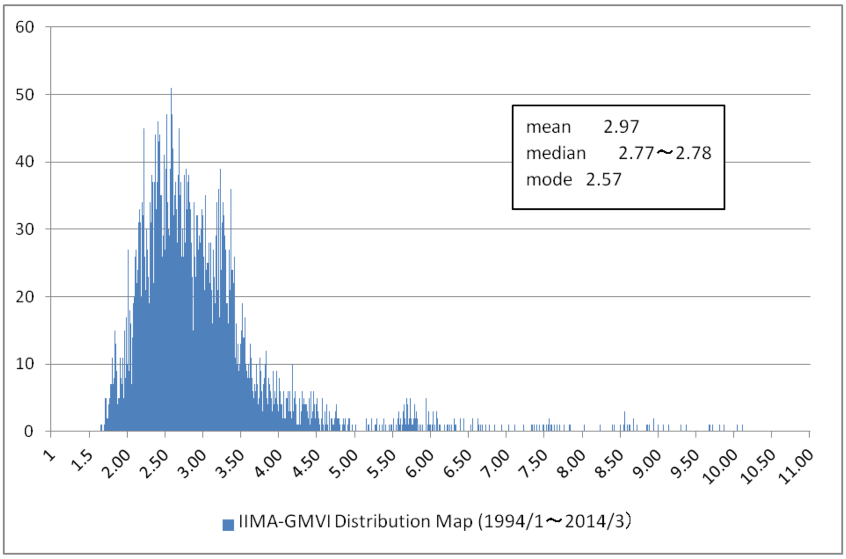
In this report, I would like to examine the process in which the improvement (meaning stability) of risk indicators would encourage investors to invest in risk assets, and eventually excessive investment in such risk assets would lead to an accumulation of macroeconomic imbalances, which will be then reflected in the macroeconomic indicators. For this purpose, I will use the data in IIMA-GMVI for the past 20 years to see the investor sentiment reflected and the same kinds of macroeconomic indicators as adopted in the MIP I introduced in the previous chapter.

Before I get to the main point, I would like to consider on how to interpret the values calculated in the VIX and the IIMA-GMVI. In the first place, volatility is statistically represented by a standard deviation which is a measure how spread out the numbers are. Then you may wonder why these volatilities can represent the investor sentiment toward the financial market.

Prices for such financial assets as equities, bonds, and foreign exchanges are considered to be theoretically determined by the present values of the total expected cash flow that the asset will produce over the long term. The condition where the financial asset prices fluctuate in high volatility can be interpreted as the one where the investors' forecast for the future cash flow from the asset is not decisive, or the investors have anxiety over the forecast for that future cash flow. When it is difficult to make assessment on the future cash flow of a financial asset, (or there is a greater risk in it), an investor would not be inclined to invest in a risk asset if he is a risk-averting investor. Actually, the past experiences show that volatilities rose in most cases when the prices of risk assets plunged. Conversely, the stability of the volatility can often be seen in the phase when the prices of risk assets are edging up. This is because the stability in the market enables the investors to have a clearer view on the future, offering them an environment easier to invest in risk assets.

Next, let's confirm the past movement of the IIMA-GMVI. The distribution of its volatilities in the past 20 years is shown in Chart 7. It shows that they have a long tail to the right direction (higher volatility) but the distribution is heavily centered around the 2.50-2.60 values. From this distribution, it can be understood that the volatilities will sharply rise when a major risk emerges but except for that the volatilities in the global financial market will generally follow the mean reversion pattern.

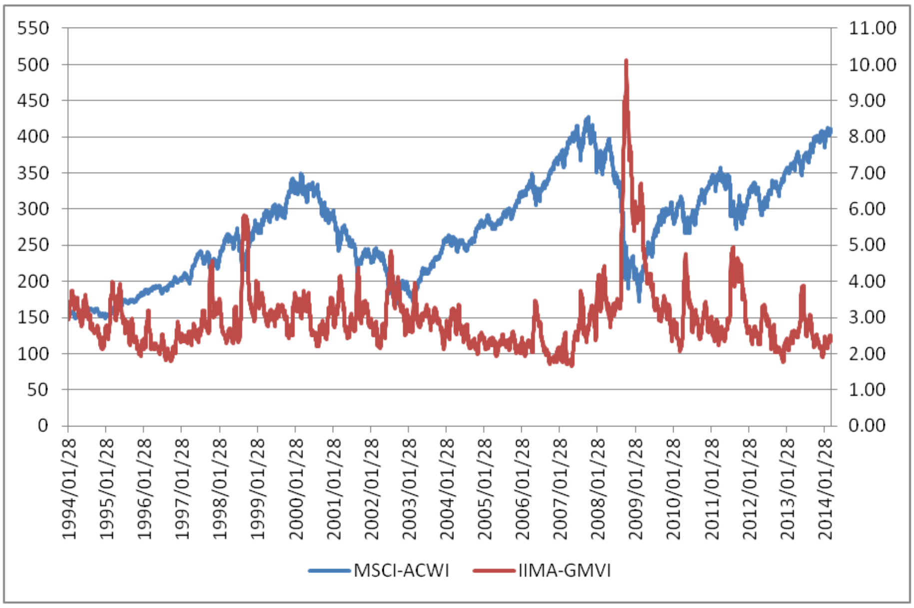
**Chart 7: Distribution of Volatilities in the IIMA-GMVI**




Source: Compiled by author by using data of Institute for International Monetary Affairs

Next, let us see whether a volatility index can be a leading indicator to the risk asset prices. Rise in the volatility indices such as the VIX is generally regarded as a signal for a fall in the risk asset prices, but there is no direct predictability of it since the index is nothing more than the indication of the variability of the recent financial asset prices. Nevertheless, the reason why the risk indicators like the VIX are closely watched in the financial market is because the past rising phases of the index coincided with the plunge of the risk asset prices. This suggests that there may exist some correlation between the variability in the financial asset prices and the investor sentiment toward the financial markets. In other words, if any shock happens in the market, a cyclical process will work in the way where the rise in the volatility will lower the risk appetite of investors, accelerating the selling off of high risk assets, which will cause the instability of prices and therefore higher volatilities in the market. In the serious case, that may develop into a financial crisis.

**Chart 8: MSCI-ACWI and IIMA-GMVI**




Source: Thomson Reuters, Institute for International Monetary Affairs

Looking back at the rising phase of the volatility indices, it is clear it often coincided with the developments for adjustments of macroeconomic imbalances, as well as big accidents such as the 9.11 terrorist attacks. When the macroeconomic imbalances increase to an unsustainable level, adjustments in the macroeconomic indicators would start to be seen, and the adjustment in the real economy would make it difficult for investors to forecast future cash flow, inducing the adjustment of risk asset prices, thus a rising in the volatility.

As the volatilities are low and stimulate the investors' incentives to invest, the continued investment tends to be excessive, inviting also an overheating of the macro economy. Therefore, prolonged low volatility has a possibility of such an overheating. In the final phase of the prolonged low volatility, it has often coincided with the time when the price rise in risk assets has peaked as it loses a momentum from a rising expectation for the economic growth. This situation can be judged as the stage that the economy has come to level off.

In order to explore the relationship between the low volatility and the macroeconomic indicators, let us see the past data of the changes of the investor sentiment and the developments in the macroeconomic indicators since 1994. To be more precise, I will compare the changes in the IIMA-GMVI data and macroeconomic indicators for the period from January 28, 1994 to March 31, 2014. Here I will define it as low volatility when the IIMA-GMVI shows the level of 2.50 or less and as low volatility period when the situation continues for longer than one month. The level under 2.50 covers approximately lower one third of the total values throughout the period.

Macroeconomic indicators used here in this report include the same 6 indicators as adopted in the MIP referred to in the previous chapter: namely, current account balance, real effective exchange rate, and net external investment positions to assess the external imbalance, and real housing price, private sector debt outstanding, and government debt outstanding to assess the domestic imbalance. As for the real housing price, the comparison is limited to only those countries that publish the data.

Chart 9 shows the low volatility periods seen in the IIMA-GMVI, among which the two periods of late 1995 –to middle of 1997 and late 2004 to middle 2007 lasted for much longer than the others. After the global financial crisis of 2008, there were less periods of low volatility that lasted for as long as it did before the crisis, partly because the European debt problems continued to smolder over a long period of time. Yet, it can be detected that low volatility lasted for some time before the Greece shock of May 2010 or just before the first reference to tapering of US quantitative easing in May 2013. Volatility declined on and off from March to July 2011 although that period was not picked up in the chart because the low volatility under 2.50 in the IIMA-GMVI did not last for more than a month. But it seems that this was a precursory development for a big adjustment of the financial market that occurred in August-October 2011.

**Chart 9: Period of Low Volatility and Macroeconomic Imbalances**

| Low volatility periods | Macroeconomic Imbalance afterward |
|---|---|
| 1995/10 – 1996/2 | Asia Crisis Russia Crisis |
| 1996/4 – 1996/12 | |
| 1997/1 – 1997/4 | |
| 2004/9 – 2004/12 | Global Financial Crisis |
| 2005/1 – 2005/7 | |
| 2005/7 – 2005/10 | |
| 2005/11 – 2006/5 | |
| 2006/8 – 2007/7 | |
| 2010/3 – 2010/4 | Big current deficit in developing countries |
| 2012/10 – 2013/4 | |
| 2013/10 – | ? |

Source: Compiled by author by using data of Institute for International Monetary Affairs

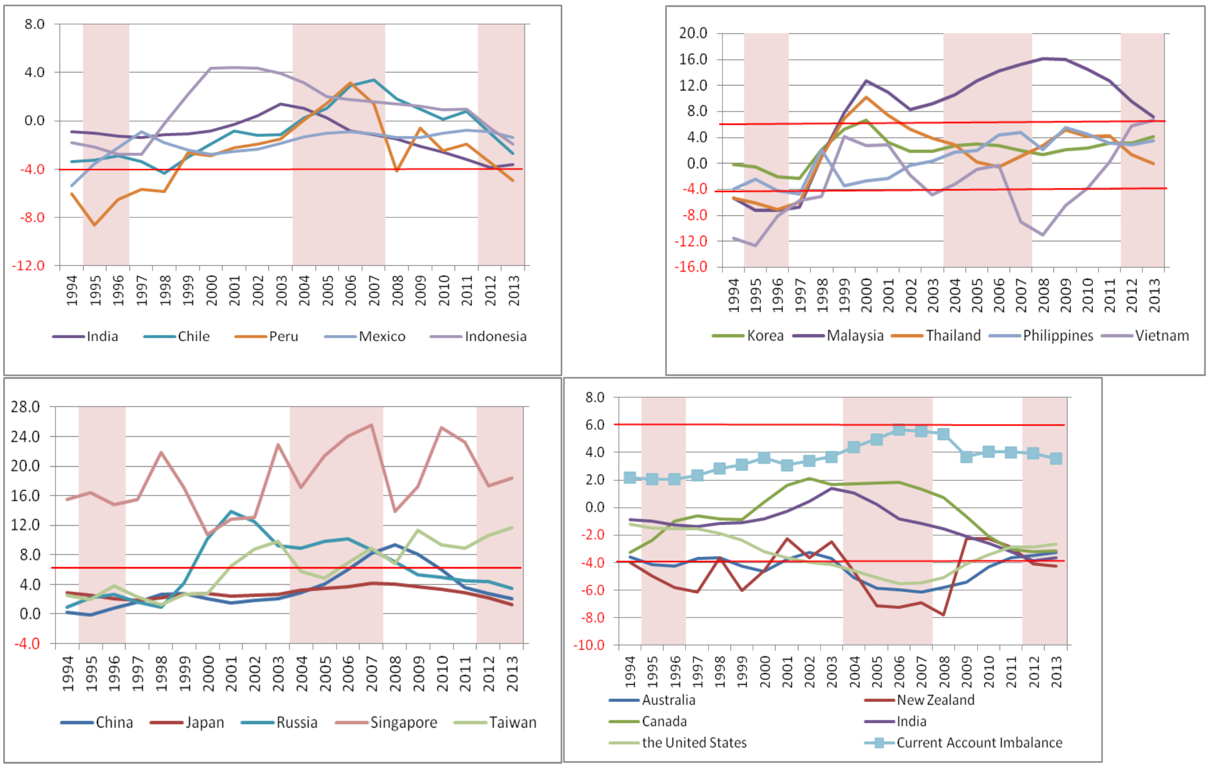
（1）Volatility Index and Current Account Balance

Current account balance is often used as the most effective indicator to assess the imbalance that a country may have. Let us examine whether the current account surplus or deficit of a country was expanding when the low volatility period in the IIMA-GMVI lasted for long.

Chart 9 compares the development of the IIMA-GMVI and the aggregated absolute value of the world's current account balance to GDP. It can be seen here that the current account imbalances were largely expanding from 2004 to 2008 in concert with the lowering volatility in the world financial markets since the latter half of 2004. In this period, the current account deficits expanded in the US and Southern European countries whereas the surpluses expanded in Germany and in the Asian countries including Japan and China.

On the other hand, in other periods of prolonged low volatility, there were no big global imbalances in the current account balance. In such period in the latter 1990s, the current account imbalances were rather limited to some of the Asian countries such as Malaysia, Thailand, Indonesia, the Philippines, and Korea (although in Malaysia and Thailand, the current account deficits expanded to exceed the threshold value of the MIP), while in the aftermath of the global financial crisis, the global imbalances were more or less restrained than in the middle of the 2000s as the current account deficits were largely reduced in the US from the level in the pre-crisis days. Since 2012, however, current account imbalances of emerging economies (especially of so-called "fragile 5" of Brazil, India, South Africa, Turkey and Indonesia) have newly become prominent, suggesting a glimpse of influence of the prolonged low volatility. This may include the concerns over the emerging economies that have continued to be seen since the middle of 2013.

**Chart 10: Current Account balances**




Source: Compiled by the author based on IMF data.

※ The world imbalance of current account balance is an aggregation of absolute values of the surpluses and deficits of individual countries and shown in %. Red lines on the Graphs indicate the threshold value given in the MIP, and shadows represent the period of low volatility.

（2） Volatility Index and Real Effective Exchange Rate

Real Effective Exchange Rate (REER) is also considered useful as an indicator to detect the macroeconomic imbalances. The intention of the European Commission in its adoption of REER was mostly to measure the export price competitiveness of member countries, but in this report we would presume that the currency value itself could cause a macroeconomic imbalance. Let us examine whether or not an appreciation of the REER in a current account deficit country with high interest and high risk would accelerate the accumulation of its economic imbalances including the current account deficit.

Prolongation of the low volatility period tends to cause appreciation in the risk currencies (those of resource-rich countries, emerging economies, and current account deficit countries) and depreciation in the safe currencies (those of advanced countries, and current account surplus countries). Termination of a low volatility period often coincides with the beginning of adjustment in the currency.

Chart 10 compares the development of the REER in APEC member countries with the prolonged period of low volatility observed in the IIMA-GMVI. If the Purchasing Power Parity, which is regarded as a useful theory in determining the level of a foreign exchange rate in the long run, would hold, the REER should converge to the PPP. In this connection, it would be able to interpret that the appreciation of the REER would mean an overvaluation of the currency, while the depreciation an undervaluation of it. At a time when the investors' risk appetite is strong, the REER of a country with high interest rate is liable to appreciate as such a country (often with a current account deficit) tends to attract large inflow of funds.

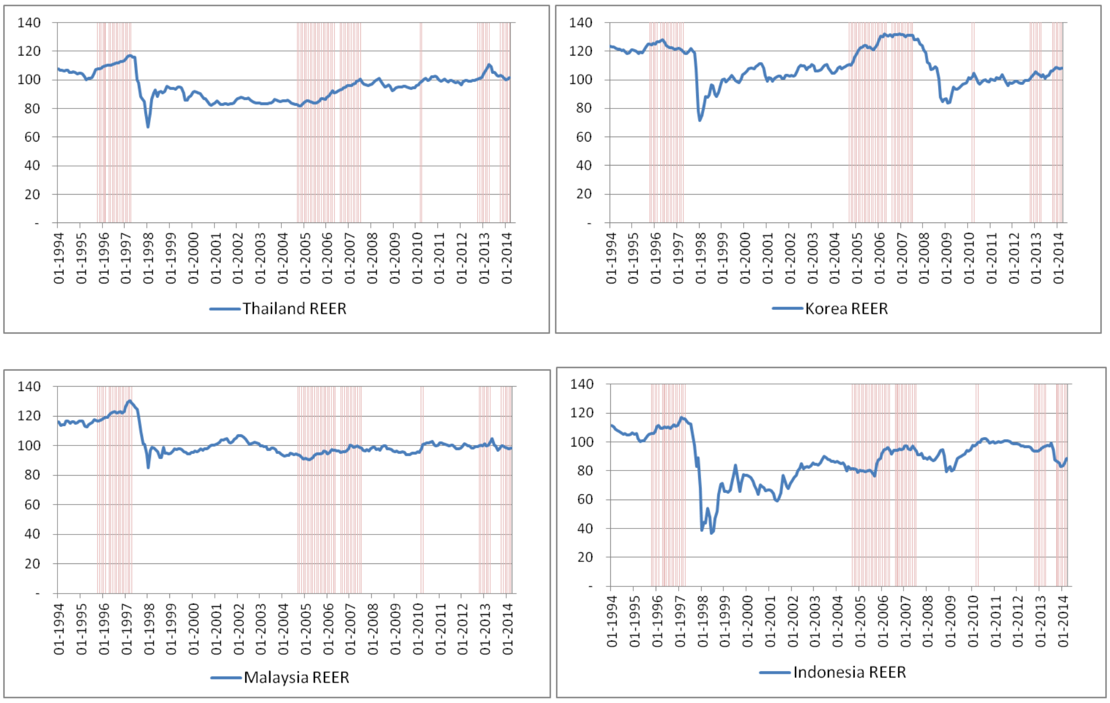
From Chart 11 it can be seen that in many cases an end of a low volatility period sent a signal to the change in the REER. Especially in the middle of 1997, when the low volatility period of late 1995 to early 1997 came to an end, such currencies that were severely hit by the Asian currency crisis, including Thai baht, Malaysian ringgit, Philippine peso, Indonesian rupiah and Korean won had simultaneously fallen sharply, paving the way for currency realignment thereafter. On the other hand, the Japanese yen had ended its depreciation period by the end of the low volatility period, and started to rebound. The same trend could also be seen in countries other than in Asia, such as those in the Oceania and Chile which are geographically close to Asia.

Similar movements in the foreign exchange rates can be seen before and after the low volatility period of latter of 2004 to the middle of 2007. In this period, the REER of Thai baht, Philippine peso, Indian rupee, Indonesian rupiah, and Korean won had peaked in the appreciation while the Japanese yen hit the bottom of decline. Other currencies in Oceania and those in the American Continent excluding the US dollar also hit the peak.

Also in the periods of March to April, 2010, and October 2012 to April 2013, the REERs of individual countries peaked. In these periods, the peak time and low volatility period were aligned, with a turnaround in the exchange rate and the start of rising in the volatility index happening at the same time.

There was some difference in the low volatility period after October 2013. In this period, as was seen in the divergence in the two sub-indices of IIMA-GMVI for advanced markets and emerging markets, volatility was low in the index for advanced markets that have heavier weights and high in the index for emerging market that have smaller weights in the total index. Although the total IIMA-GMVI has shown relatively low level in this period, the REERs in the emerging markets continue to show a directionless movement.

**Chart 11 Real Effective Exchange Rates and Low Volatility Periods**

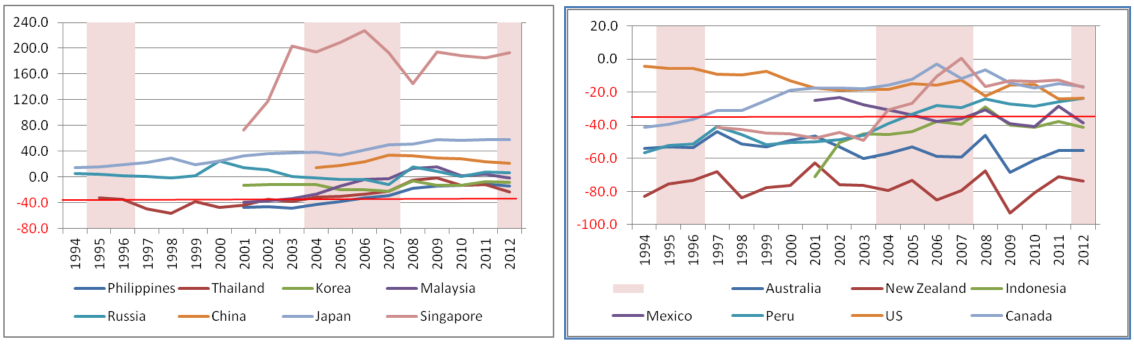



Source: Compiled by the author based on BIS data.

(3) Volatility Index and External Investment Position

There is no clear and firm relationship between the low volatility period in the IIMA-GMVI and external investment positions in these countries. This may be attributable to the fact that the external investment position of a country is affected in two ways through the accumulated current account balance and the change in asset prices. Therefore, the change of investor sentiment toward the financial market will emerge in various aspects. For instance, in the export oriented emerging countries, even if the current account surplus increased in line with the improvement of the world economy, thus improving their external investment position from a flow aspect, there may be a case where the large inflow of foreign investment pushes up the domestic asset prices, thus causing a deterioration in the external investment position from a stock aspect. Investor sentiment will affect both the external assets and liabilities that include equities, bonds, lending and others, and their impacts on prices will vary accordingly. Therefore, the influence of investor sentiment on their external investment positions will much depend on the circumstances of the countries.

**Chart 12: External Investment Position**




(Source) compiled by the author based on IMF data.

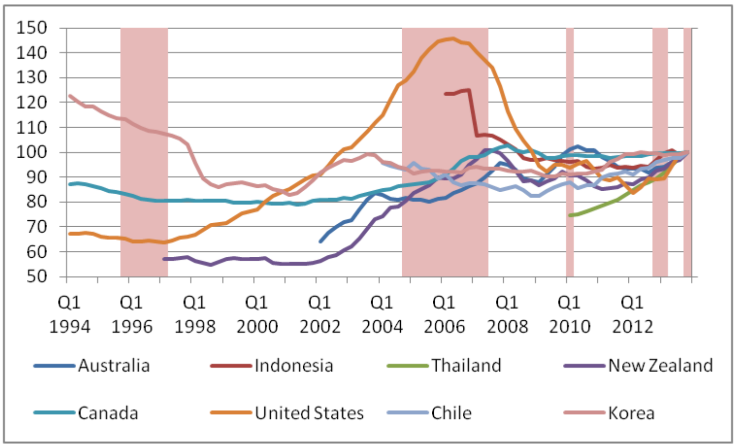
※ Red lines on the Graphs indicate the threshold value given in the MIP, and shadows represent the periods of low volatility.

（4） Volatility Index and Real Housing Price

Some correlation can be seen between the low volatility period in the IIMA-GMVI and the development of real housing prices. Rising real housing price has a tendency to stimulate investment and consumption through the improvement in sentiment by wealth effect and an increase in borrowings supported by the increased value of collaterals.

This tendency may confirm an existence of a strong relationship between the housing prices and the investor sentiment toward the financial market. Just around the end of the low volatility period ahead of the global financial crisis of 2008, the real housing prices had peaked out mainly in the advanced countries. After the financial crisis, however, the housing prices have been rising even during the low volatility period after the end of 2012 in such Asian countries as Indonesia, Thailand, and Malaysia as well as in New Zealand. Since the middle of 2013, appreciation rates in housing prices are increasing in such advanced countries as Australia, the US, and the UK.

**Chart 13: Real Housing Prices and Low Volatility Periods**




Source) compiled by the author based on Thomson Reuters.

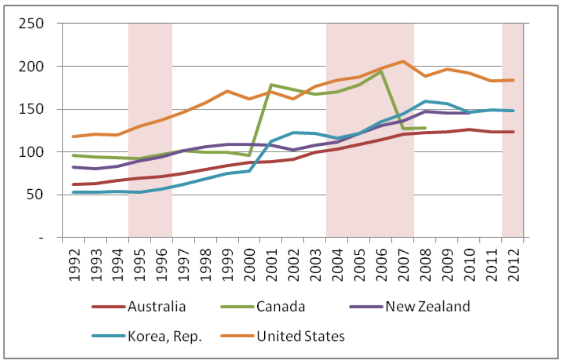
※Shadows represent the periods of low volatility. Real Housing prices are calculated by deflating housing prices by CPI. As for Real housing Prices, the values in 2013 Q4 are regarded as 100.

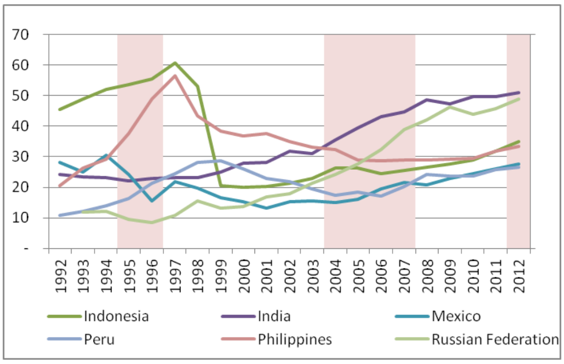
(5) Volatility Index and Private and Government Debt Outstanding

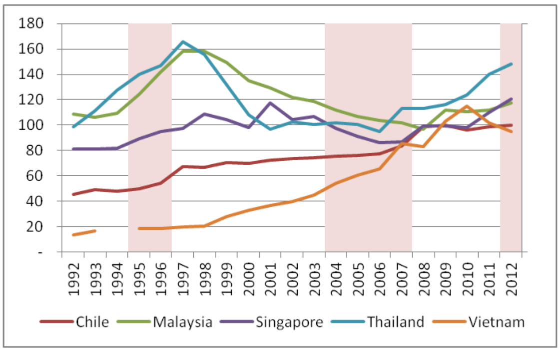
Prolonged period of low volatility in the IIMA-GMVI has often been accompanied by the expansion in private borrowings. This is seen from the comparison of the low volatility periods in the IIMA-GMVI and the credit outstanding offered to the private sector. Debt outstanding in the private sector especially increased rapidly in ASEAN countries (Indonesia, the Philippines, Thailand, Malaysia, etc) in the low volatility period of 1995-1997, and in the advanced countries and BRICs in the low volatility period of 2004-2007, indicating an overheating risk appetite among the investors. The increase in the private debt outstanding occurred around the same time as the overheating housing market, suggesting that there is a strong connection between them. On the other hand, no clear relation was seen in the government debt outstanding by itself and the low volatility period.

The European Commission (2012) notes that inclusion of the general government debt outstanding in the scoreboard was intended to assess the total amount of debt the member states had. However, there is no clear connection between the low volatility period and total debt outstanding of the nations.

**Chart 14: Private Debt Outstanding (% of GDP)**



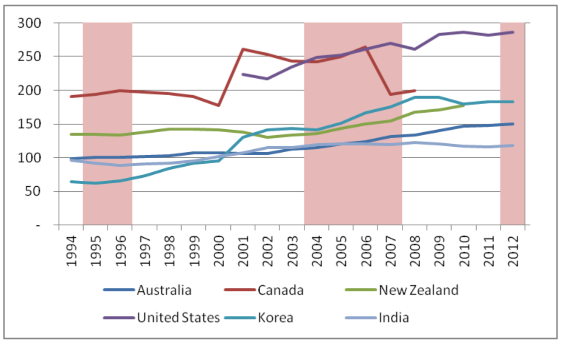



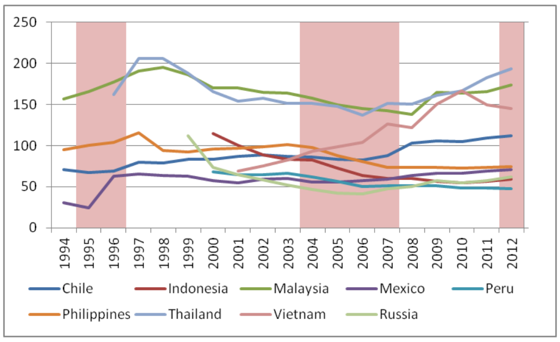



Source: Compiled by author based on IMF and World Bank data.

＊ Shadows represent the periods of low volatility.

## Chart15 Overall Debt Outstanding（% of GDP）




Source: Compiled by author based on IMF and World Bank data.

※ Overall debt outstanding (% of GDP) is the aggregation of private and government debt outstanding (% of GDP). Shadows represent the periods of low volatility.

As was seen above, the prolonged period of low volatility has the following characteristics as summarized in Chart 16. Lowering of volatility in the asset prices in the financial market brings an increase in the investors' risk appetite, which will be translated into the expansion of financial leverage as is seen in the rise of real housing prices and the increase in private debt outstanding. That expansion increases the inflow of money into the high interest rate countries that are highly expected for their growth potentialities, creating big imbalances on their current account balances and excess changes in their REERs, which in turn tend to lead to a rise in the price of risk assets such as reflected in the stock index, real housing price index, and REER.

### Chart 16 Investor Sentiment and Conditions in the Financial Market

| | Volatility of asset prices | Risk appetite of investors | Financial leverage | Capital flow to developing countries | Risk asset prices |
|---|---|---|---|---|---|
| Low Volatility | Fall | Rise | Expansion | Increase | Rise |
| High Volatility | Rise | Fall | Reduction | Decrease | Fall |

Source: Compiled by author

If the investor sentiment toward the financial market that is shown in the volatility index changes at around the same time as the changes in the macroeconomic indicators, the volatility index can be seen as a leading indicator to the macroeconomic indicators. The IIMA-GMVI of this institute is calculated on a daily base, thus providing more timely information than the other macroeconomic indicators which take time in their publication, although they may indicate the imbalances more precisely and deeply.

## 5. Further Challenges

So far we have seen that the long period of the low volatility in the IIMA-GMVI could be a signal of a possible imbalance in the macro economy. But it is also true that the mere prolonged period of the low volatility in the index cannot fully explain the occurrence of macroeconomic imbalances. There is no clear threshold value to judge how long the low volatility period should continue before we can detect the accumulation of the macroeconomic imbalances that could trigger a crisis.

Furthermore, since the volatility index simply measures the fluctuations in the prices, it is inevitable to takes a low value for the controlled prices. Especially in the case of foreign exchange rate, there are many countries that adopt managed exchange rate system with limitations for daily rate changes or actively intervene in the market to control the rate. In these countries, the volatility index would record small values, indicating the possibility that it does not correctly reflect the investor sentiment toward the financial market in those countries.

As is pointed out in the discussion of trilemma of international finance, managed prices may by themselves produce the macroeconomic imbalances, so there will be no problem in taking the low volatility period as a leading indicator.

## 6. Conclusion

Volatility Index is an indicator that shows the magnitude of the fluctuation in the financial market. A rise in the volatility index often creates an environment that may induce a fall in risk asset prices or capital withdrawal, since it deteriorates the sentiment of the investors toward the financial market by giving concerns over the outlook for the macro economy and corporate incomes that underlie the risk asset prices. A fall of the index, on the other hand, indicates a lowering of fluctuations in the financial market, and it suggests edging up of risk asset prices, an increase in borrowing and influx of money to emerging countries since it improves the investor sentiment by making it easier to forecast the future prospect on the macro economy and corporate incomes.

With such a mechanism, the lowering of the volatility index for a longer term is liable to trigger a macroeconomic imbalance. As we have seen in Chapter 3, the period of a continued low volatility in the IIMA-GMVI coincided with the time of accumulated imbalances in such indicators as the current account balance, real effective exchange rate, real housing price, and private debt outstanding which are effective indicators to assess the macroeconomic imbalance both in domestic and external sectors. Since the magnitude of the index reveals the degree of the influence to the shocks, it is also possible to examine spillover effects among the individual financial markets by making various sub-indices as we have tried in this institute.

Risk indicators that include volatility indices can play an important role in assessing an accumulation of macroeconomic imbalances and spillover effects of a shock to the global financial markets. Since they provide more timely information than the macroeconomic indicators, which need some time before their publication, the development of the volatility index can be used as a meaningful leading indicator to the other macroeconomic indicators.

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## Asia-Pacific Financial Forum
# Interim Report to the APEC Finance Ministers

## ANNEX J
## List of Abbreviations

## ANNEX J: LIST OF ABBREVIATIONS

| | |
|---|---|
| ABAC | APEC Business Advisory Council |
| ADB | Asian Development Bank |
| AFMA | Australian Financial Markets Association |
| AML | Anti-Money Laundering |
| AOSSG | Asian-Oceanian Standard-Setters Group |
| APEC | Asia-Pacific Economic Cooperation |
| APFF | Asia-Pacific Financial Forum |
| APIP | Asia-Pacific Infrastructure Partnership |
| ARFP | Asia Region Funds Passport |
| ASEAN | Association of South East Asian Nations |
| ASIFMA | Asia Securities Industry & Financial Markets Association |
| AVC | Asset Value Correlation |
| BAFT | Bankers' Association for Finance and Trade |
| BCBS | Basel Committee on Banking Supervision |
| BIS | Bank for International Settlements |
| BPO | Bank Payment Obligation |
| CCP | Central Counterparty Clearing House |
| CDD | Customer Due Diligence |
| CFA | Commercial Finance Association |
| CG | Corporate Governance |
| CGIF | Credit Guarantee and Investment Facility |
| CIS | Collective Investment Scheme |
| CPSS | Committee on Payment and Settlement Systems |
| CRD | Capital Requirements Directive |
| CRS | Common Reporting Standards |
| CSD | Central Securities Depository |
| CSIS | Center for Strategic and International Studies |
| CSM | Contractual Service Margin |
| EBITDA | Earnings Before Interest, Taxes, Depreciation and Amortization |
| EU | European Union |
| FASB | Financial Accounting Standards Board |
| FATF | Financial Action Task Force |
| FDI | Foreign Direct Investment |
| FMI | Financial Market Infrastructure |
| FX | Foreign Exchange |

| | |
|---|---|
| G20 | Group of 20 |
| GAAP | Generally Accepted Accounting Principles |
| GMRA | Global Master Repurchase Agreement |
| IASB | International Accounting Standards Board |
| ICC | International Chamber of Commerce |
| ICMA | International Capital Market Association |
| ICSD | International Central Securities Depository |
| IFC | International Finance Corporation |
| IFG | International Factors Group |
| IFRS | International Financial Reporting Standards |
| IIMA | International Institute for Monetary Affairs |
| IOSCO | International Organization of Securities Commissions |
| ISDA | International Swaps and Derivatives Association |
| JSDA | Japan Securities Dealers Association |
| KYC | Know Your Customer |
| L/C | Letter of Credit |
| LCY | Local Currency |
| MSMEs | Micro-, Small and Medium Enterprises |
| NOA | Notice of Assignment |
| OCI | Other Comprehensive Income |
| OECD | Organisation for Economic Co-operation and Development |
| OTC | Over the Counter |
| PERC | Policy and Economic Research Council |
| PPP | Public-Private Partnership |
| RMB | Renminbi |
| SWIFT | Society for Worldwide Interbank Financial Telecommunication |
| UCC | Uniform Commercial Code |
| UCITS | Undertakings for Collective Investment in Transferable Securities |
| UNCITRAL | United Nations Commission on International Trade Law |