15 August 2017

H. E. Dinh Tien Dung
Chair, APEC Finance Ministers' Meeting
Minister of Finance
Viet Nam

Dear Minister Dinh Tien Dung:

On behalf of the APEC Business Advisory Council (ABAC), I am pleased to convey to you this year's ABAC Letter to APEC Finance Ministers.

As regional business leaders, we are deeply aware that in this environment of subdued growth, geopolitical uncertainty, changing demographics, and increased inequality, the public and private sectors need to actively work together to encourage innovation and ensure inclusive growth across the Asia-Pacific. Rather than adopting protectionist policies that can hurt growth and opportunity in the longer term, we must clearly communicate the benefits of trade and globalization while making sure to separate the causes and consequences of trade, technological advancement, and other structural economic shifts. Trade imbalances across the region should be addressed at their roots – including barriers to competitiveness and domestic consumption. Various work streams within the APEC and ABAC communities are tackling these tough issues.

Finance plays a key role in this effort, and we believe the greatest progress toward addressing these broader issues can be achieved in the areas of **capital market development, MSME access to finance, infrastructure, and innovation**. We also note that risk-taking is necessary for growth, especially in these areas, and should be enabled by policies that strike a healthy balance between growth and protecting financial stability, while also providing appropriate levels of transparency as to the risks involved.

Capital Market Development
Development of capital markets is indispensable for achieving the Cebu Action Plan's goals of promoting financial integration, resilience and infrastructure. However, many economies face complex challenges, including the lack of liquidity and depth, lack of market players' access to hedging instruments, lack of high-quality and timely information and underdeveloped custody, clearing, settlement and payment systems that keep transaction costs and risks at elevated levels and hinder cross-border portfolio capital flows.

We urge APEC Finance Ministers to focus their efforts on promoting capital market development, including policy and regulatory reforms and capacity building measures that help create deep and liquid markets, supported by a stable macroeconomic environment. This can be fostered by appropriate economic reforms; the creation of sound legal frameworks and efficient financial market infrastructure; and policy measures that ensure the broad availability of information. We also call on more economies to join the Asia Region Funds Passport.

ABAC Viet Nam Secretariat
Viet Nam Chamber of Commerce and Industry
9 Dao Duy Anh Hanoi, Viet Nam
Tel: (844) 3574 2022 ● Fax: (844) 3574 2020

MSME Finance
We appreciate the efforts of APEC Finance Ministers under the Cebu Action Plan to address the financing challenges MSMEs face. Robust credit information, valuation, secured transactions and insolvency systems are critical for promoting their access to finance. We urge APEC Finance Ministers to continue pursuing the development of these systems by promoting the acceleration of the necessary legal and regulatory reforms and capacity building measures.

These efforts need to go hand in hand with undertakings to enable MSMEs to expand their role in regional trade and investment, such as ensuring the regional consistency of legal and regulatory frameworks, facilitating trade and supply chain finance and supporting pilot projects on the cross-border sharing of credit information. We also call on Ministers to continue advancing financial inclusion through the creation of enabling ecosystems for micro and agricultural finance, financial education, microinsurance, innovations in digital identity, online supply chain finance and harnessing distributed ledger technology.

Infrastructure
The infrastructure needs in APEC economies are as vast as they are critical to advancing economic growth. Substantial private funding is available to complement public sector and Multilateral Development Bank (MDB) sources of funding. Yet a lack of bankable infrastructure projects persists.

We urge APEC Finance Ministers to boost infrastructure development and delivery in the APEC region by developing and promoting bankable and investment-ready infrastructure project pipelines, enhancing the role of Multilateral Development Banks as catalysts for private sector investment where projects require support from MDBs, and fostering green finance markets. Specific recommendations on each of these topics are detailed in the report annexed at the end of this letter.

Greater attention also needs to be given to promoting more long-term investment from institutional investors such as insurance firms and pension funds, as well as Islamic financial institutions.

We further encourage innovation in financing mechanisms; and establishing diversified, market-based infrastructure financing models. Significant gains in planning and implementation would follow from improved coordination among agencies responsible for public-private partnership (PPP) projects and enhanced governance arrangements aimed at building trust between governments and private sector investors. Creating the regulatory certainty through the policies above would, in itself, also aid development.

Innovation
The development of innovative new technologies in the financial arena (fintech) has already demonstrated tremendous potential to help create more inclusive, stable and efficient financial systems. New fintech solutions are enabling micro-businesses to take advantage of growing export opportunities and creating alternatives for underserved communities to gain access to banking services. Policymakers across the region are currently working to evolve their regulatory structures to promote innovation and continued expansion of the fintech sector while at the same time ensuring that basic consumer protections are still assured.

We believe it is important for regulators to take a balanced approach to the evolution of the fintech sector. They should adopt technology-neutral regulatory frameworks that encourage continued investment and innovation and do not discourage the adoption of new technologies. They should engage with industry leaders to determine how existing regulatory policies that protect consumers and promote financial stability can be extended to new technologies in ways that will promote consumer confidence and economic growth. To help them achieve this, we ask APEC Finance Ministers to support regular regional dialogues between public and private sectors. These dialogues should focus on key issues such as ensuring a level playing field for financial technology, modernizing legal and regulatory frameworks related to privacy and data protection, removing barriers to cross-border business activities and movement of data, and the potential for using data to promote greater financial inclusion and cybersecurity.

ABAC's Contributions to Implementing the Cebu Action Plan
In addition, throughout 2017, ABAC is undertaking activities in pursuit of various deliverables under the Cebu Action Plan. Finance Ministers have entrusted several of these deliverables to three policy initiatives led by ABAC – the Asia-Pacific Financial Forum (APFF), the Asia-Pacific Infrastructure Partnership (APIP) and the Asia-Pacific Forum on Financial Inclusion. Details of these activities, their outcomes and recommended next steps are contained in the 2017 APFF Progress Report and the 2017 Advisory Group Report on APEC Financial System Capacity Building, which are annexed to this letter.

Finally, ABAC welcomes the Finance Ministers' support for continued dialogue with the APEC Life Science and Innovation Forum and the Health Working Group on ways to address the fiscal and economic impacts of ill-health. We continue to support this initiative and welcome the creation of the cross-fora task force.

We appreciate the opportunity to contribute to the work of APEC Finance Ministers, and we look forward to discussing these important matters further at the Finance Ministers' Meeting (FMM) in Quang Nam, Viet Nam in October.

We wish you a successful and productive conclusion to this year's FMM.

Yours sincerely,

Hoang Van Dung
ABAC Chair 2017

Attachments:
Annex A: 2017 ABAC Report to APEC Finance Ministers
Annex B: Asia Pacific Financial Forum 2017 Progress Report
Annex C: Advisory Group Report on APEC Financial System Capacity Building

Annex A

ABAC Report to APEC Finance Ministers

1. Innovation

Fintech

The development of innovative new technologies in the financial arena (fintech) has already demonstrated tremendous potential to help create more inclusive, stable and efficient financial systems. New fintech solutions are enabling micro-businesses to take advantage of growing export opportunities and creating alternatives for underserved communities to gain access to banking services. Policymakers across the region are currently working to evolve their regulatory structures to promote innovation and continued expansion of the fintech sector while at the same time ensuring that basic consumer protections are still assured. ABAC underscores the importance for regulators to take a balanced approach to the evolution of the fintech sector that fosters continued growth and job creation in this dynamic sector of the economy.

In addition to the recommendations below, future considerations on regulatory environments for fintech can include topics such as payments, the right to participate, encouraging sustainable business models, consumer protection, and electronic know your customer services.

Specific recommendations include:

- **Adopt technology-neutral regulatory frameworks** that encourage continued investment and innovation and do not discourage the adoption of new technologies.

- **Engage with industry leaders to determine how existing regulatory policies that protect consumers and promote financial stability can be extended to new technologies** in ways that will promote consumer confidence and economic growth.

- **Support regular regional dialogues between public and private sectors.** These dialogues should focus on key issues such as ensuring a level playing field for financial technology, modernizing legal and regulatory frameworks related to privacy and data protection, removing barriers to cross-border business activities and movement of data, and the potential for using data to promote greater financial inclusion and cybersecurity.

2. Infrastructure

Boosting infrastructure development and delivery is key to regional growth and economic prosperity. We recognize that project implementation requires an investment environment that includes sound governance systems, responsible agencies backed by legislation, and effective documentation and contractual obligations, in which private investors and governments can have trust. APEC economies should ask the Global Infrastructure Hub (GIH), in conjunction with the World Bank and other MDBs, to develop and promote bankable and investment-ready infrastructure project pipelines through dedicated portals allowing access to project information, through the standardization of documentation, and by sharing and adopting best practices on private finance for public infrastructure. The work of the GIH and the MDBs should include the promotion of best practice guidelines in specific priority sectors and capacity building to assist emerging markets develop bankable projects. The MDBs should be encouraged to further expand their role as catalysts for private sector investment, for example, through extending guarantees and co-financing, with a clearer focus on the construction phase of infrastructure projects, and enhanced exchange with private stakeholders.

Specific recommendations include:

- **Improving Legal and Regulatory Frameworks** – APEC economies should put particular emphasis on the stability and certainty of legal and regulatory frameworks for foreign direct investors.

- **Developing and Promoting Bankable and Investment-Ready Infrastructure Project Pipelines** – APEC economies should ask the Global Infrastructure Hub (GIH), in conjunction with the World Bank and other MDBs, to develop and promote best practice guidelines and facilitate bankable and investment-ready infrastructure project pipelines through dedicated portals allowing access to project information, through the standardization of documentation, and by sharing and adopting best practices on private finance for public infrastructure.

- **Enhancing the Role of MDBs** – The APEC economies should encourage MDBs to further expand their role as catalysts for private sector investment, for example, through extending guarantees and co-financing, with a clearer focus on the construction phase of infrastructure projects, and enhanced exchange with private stakeholders as noted in the GIH Report to G20 Deputy Finance Ministers and Deputy Central Bank Governors on MDB Internal Incentives for Crowding-in Private Investment in Infrastructure of 1 December 2016.

- **Fostering Green Finance** – APEC economies should foster the growth of green finance markets through commonly accepted terminologies and concepts, improved publication of information, and the development of international standards for proportionate and consistent market regulation.

3. ABAC and the Implementation of the Cebu Action Plan

In 2017, ABAC undertook activities in pursuit of various deliverables under the Cebu Action Plan (CAP). Ministers have entrusted several of these deliverables to three policy initiatives led by ABAC – the Asia-Pacific Financial Forum (APFF), the Asia-Pacific Infrastructure Partnership (APIP) and the Asia-Pacific Forum on Financial Inclusion. Details of these activities, their outcomes and recommended next steps are contained in the *2017 APFF Progress Report to the APEC Finance Ministers* and the *2017 Report on Capacity Building Measures to Strengthen and Develop Financial Systems* (Advisory Group Report), which are annexed to this Letter.

Following are highlights of our initiatives' contributions to the implementation of the Cebu Action Plan:

Developing Deep and Liquid Capital Markets

Capital markets are critical for financial stability, sustained growth, and efficient channeling of savings to investment in long-term assets like infrastructure. APFF's work has focused on improving the depth and liquidity of capital markets. This year, activities included capacity building sessions in Thailand and China to promote sound and liquid repo and derivatives markets and continued dialogues with regulators to support progress and expansion of the Asia Region Funds Passport (ARFP).

In collaboration with a broad range of stakeholders from industry, multilateral organizations, regulatory authorities and government agencies across the region, APFF developed a roadmap envisaged in the CAP to enhance the region's financial market infrastructure, which has been submitted to Finance Ministers for consideration.

Expanding the Private Sector's Contribution to Regional Resilience

The Asia-Pacific region is a part of the world that is most prone to natural disasters. The CAP laid out a strategy to help financial markets better absorb economic shocks, develop financial instruments to mitigate the impact of disasters before they occur, and reduce associated fiscal burdens. A key element of this strategy is getting the private sector to play a larger role in developing innovative disaster risk financing and insurance mechanisms, including microinsurance.

APFF brought together stakeholders from the insurance, microinsurance and regulatory community to commence work on the roadmap envisaged by the CAP for expanding the coverage of microinsurance in the region. A similar effort to create the roadmap for expanding the private sector's role in disaster risk financing and insurance is under way.

Accelerating the Development of a Regional Pipeline of Bankable PPP Projects

In many developing economies, the lack of capacity in line agencies and local governments to bring bankable PPP projects to the market is the region's biggest infrastructure development challenge. Previous work done by APEC has created pockets of knowledge within developing economies, particularly in PPP centers and finance ministries. To accelerate the diffusion of capacity across ministries and levels of government, the APIP is establishing closer partnerships with the Global Infrastructure Hub, multilateral development banks and the OECD to bring a broad-based concentration of knowledge in dialogues with individual economies, working closely with PPP centers and finance ministries.

This year, APIP and APFF also commenced a stronger focus on the promotion of best practice guidelines and capacity building in specific sectors where projects are currently being developed as a matter of urgency. In collaboration with multiple stakeholders, APIP and APFF are convening dialogues to support the development of technical guidelines for waste-to-energy projects in Indonesia, the Philippines and Viet Nam and contributing advice based on actual private sector experiences in seminars for local government and line agency officials.

Expanding Long-Term Investors' Roles in Financing the Region's Infrastructure

Insurers and pension funds are critical for capital market development, infrastructure finance and domestic consumption growth, in addition to providing financial security, especially for rapidly aging societies. Promoting their development is particularly important in Asia, where there is a huge need for long-term financing of infrastructure while the large portion of savings are still in the form of short-term bank deposits. Complying with the mandate from the CAP, APFF is convening discussions among industry and regulators to help expand investment by pension funds and insurers in infrastructure.

Islamic financial institutions are also significant potential sources of new investment in infrastructure. In addition to challenges all types of investors face in infrastructure financing, however, specific issues such as tax treatment, common definitions of compliance with investor requirements and hedging instruments also need to be addressed, in order to facilitate their expanded investment across markets. A work program to address these issues through an Islamic Infrastructure Investment Platform (I3P) is being developed under APFF this year.

Expanding MSMEs' Access to Finance
In most developing economies, MSMEs face serious barriers to financing. In developed economies, robust secured transactions, insolvency and credit information systems enable lenders to provide financing to MSMEs against a wide range of collateral types or based on their transaction data. However, the inadequacy of such systems in most developing economies severely limits lenders' ability to meet MSMEs' financing needs. Legal and regulatory barriers to cross-border portability of business owners' credit information also constrain MSMEs' ability to seek financing when operating outside their home markets.

MSMEs face additional challenges when selling goods and services across borders. High transactional and informational costs and heightened compliance and regulatory burdens make it difficult for lenders to extend trade financing to MSMEs. In addition, many MSMEs lack familiarity with innovative alternatives in the market such as supply-chain financing, bank payment obligations, forfaiting, warehouse receipt financing and factoring.

To address these issues, ABAC and the World Bank Group have led capacity-building activities under the APFF's Financial Infrastructure Development Network (FIDN) to help Brunei Darussalam, China, the Philippines, Thailand and Viet Nam modernize their credit information, valuation, insolvency and secured transaction systems. A pilot cross-border credit information sharing initiative in the Mekong region is being progressed to enable MSMEs to use their credit information in their home economies to access finance in host economies. APFF workshops are also being held to help develop pilot programs for cross-border supply chain financing.

Pushing Financial Inclusion to New Frontiers
Since 2010, the Asia-Pacific Forum on Financial Inclusion has been providing an annual platform for a wide range of institutions to discuss approaches to expand access to finance for low-income households and microenterprises. Greater consensus on various core issues achieved over the years has enabled the Forum to shift its focus on several areas that have not received as much attention in the past. This year's Forum focused for the first time on agrifinance, expanded discussions on technology (blockchain technology, digital identity and online supply chain finance) and microinsurance, and examined financial education, policy environments and the definition of financial inclusion from a wider perspective.

Promoting Financial Innovation
Advanced information technology in finance (financial technology or "fintech") has significant potential to help create more inclusive, stable and efficient financial systems. Key to achieving this is the development of sound regulatory approaches that balance the fulfillment of objectives such as consumer protection and the stability and integrity of financial systems with the promotion of innovation and financial inclusion. In 2016, APFF began convening dialogues among regulators, industry practitioners and experts on fintech, which this year particularly focused on the critical areas of fintech credit, payments, regulatory technology (regtech), cybersecurity and customer due diligence.

The Way Forward

To help advance the implementation of the CAP in coming years, ABAC recommends the following:

1. ABAC recommends that Finance Ministers encourage relevant officials and regulators to collaborate with APFF's capacity building activities in:
   - promoting deep and liquid bond, repo and derivatives markets;
   - modernizing credit information, valuation, secured transactions and insolvency systems;
   - developing pilot programs for cross-border supply chain financing; and
   - expanding long-term investors' roles in infrastructure development.

2. We call on Finance Ministers to support APFF's efforts to develop a regional platform for public-private dialogue on harnessing fintech to create inclusive, sound and efficient financial systems.

3. We suggest economies to host discussions on the Asia Region Funds Passport (ARFP) where APFF can convene experts from regulatory, industry, multilateral and academic institutions.

4. ABAC proposes that Finance Ministers ask senior finance officials to work with APFF in 2019 to finalize the roadmaps envisioned in the CAP for:
   - developing the region's financial market infrastructure;
   - expanding the coverage of microinsurance; and
   - promoting greater private sector participation in disaster risk financing and insurance.

5. We request Finance Ministers to encourage relevant authorities to collaborate with APIP and APFF in:
   - finalizing in 2019 a work program for the Islamic Infrastructure Investment Platform (I3P) to help expand cross-border investment by Islamic financial institutions in infrastructure; and
   - developing technical guidelines and undertaking capacity building seminars for line agency and local government officials to build a pipeline of bankable waste-to-energy projects.

6. ABAC asks Finance Ministers to support continued efforts to help economies design and improve financial inclusion strategies through the Asia-Pacific Forum on Financial Inclusion.

2017 ABAC Report to APEC Finance Ministers

ANNEX B

ASIA-PACIFIC FINANCIAL FORUM

2017 Progress Report to the APEC Finance Ministers

28 July 2017

Asia-Pacific Financial Forum
2017 Progress Report to the APEC Finance Ministers

CONTENTS

Asia-Pacific Financial Forum
2017 Progress Report to the APEC Finance Ministers

EXECUTIVE SUMMARY

The ongoing debate on globalization underscores the need for structural reforms to go hand in hand with trade and investment liberalization for the latter's fruits to be more broadly and equitably shared. The widening social and geographical income gaps in many economies and the persistence of huge current account imbalances that have fueled trade frictions have contributed to the notable erosion of public support for globalization over the past few years. These challenges cannot be met by retreating to protectionism. They can be met by advancing efforts to adapt our legal, policy and regulatory frameworks to the economic realities of the 21st century, to enable entire societies, not just a few, to seize the opportunities of globalization.

In the wake of the Global Financial Crisis (GFC), the APEC Business Advisory Council (ABAC) called attention in its 2009 Report to the APEC Finance Ministers to the "great need to promote domestic demand [in Asian developing economies] and correct the huge global imbalances that have built up over the previous decades." To this end, in the same report, ABAC recommended "the launch of an APEC Financial Inclusion Initiative and the promotion of infrastructure development through a regional partnership among governments, business and international financial institutions", "the enhancement of social safety nets, including social insurance and pension systems… and the strengthening of credit reporting systems to facilitate the growth of consumer finance."

In the years that followed, APEC Finance Ministers echoed these recommendations in their Kyoto Report on Growth Strategy and Finance and the launch of the Asia-Pacific Forum on Financial Inclusion in 2010, the establishment of the Asia-Pacific Infrastructure Partnership (APIP) in 2011, the creation of the Asia-Pacific Financial Forum (APFF) in 2013 and the various activities under the Finance Ministers Process to advance greater access to finance, infrastructure investment and financial market development and integration. In 2015, the Ministers incorporated key recommendations from the private sector in their Cebu Action Plan (CAP) and encouraged APFF to actively engage in advancing several initiatives in the CAP's financial integration, financial resilience and infrastructure pillars.

This Progress Report provides an update on this work. Among the initiatives in the CAP are promoting an enabling financing environment for MSMEs, including trade, supply chain and alternative financing mechanisms; expanding financial inclusion and literacy; facilitating the cross-border offering of funds through the Asia Region Funds Passport; developing disaster risk financing and insurance across the region; developing local currency bond markets in APEC economies and a roadmap to promote financial infrastructure; and various initiatives to promote bankable infrastructure projects and long-term investment in them.

The APFF is currently undertaking work to progress these initiatives. These include work that has been started in previous years in the following areas:

- Collaboration in capacity building to assist interested economies in developing their financial infrastructure, in particular credit information, secured transactions and insolvency systems to facilitate and expand MSMEs' access to credit;
- Regional workshops to help relevant agencies, financial institutions and global supply chain participants identify barriers to trade and supply chain finance, innovative solutions to address these challenges and opportunities for collaboration;
- Regional public-private sector dialogues on advanced technology in finance (fintech), particularly in the areas of lending, payments and regulatory technology (regtech) to promote collaboration among regulators, industry participants and experts in developing balanced regulatory approaches;
- Workshops to assist relevant stakeholders in interested economies, including regulators and industry participants, in identifying and addressing legal, policy, regulatory and market issues to enable the effective use of repurchase agreements (repos) and over the counter (OTC) derivatives for the purpose of improving the depth and liquidity of bond markets;
- Collaboration with regulators and industry to assist in progressing and increasing membership in the Asia Region Funds Passport;
- Advice to regulators of interested economies in implementing the APFF self-assessment templates to improve availability and quality of information for capital market investors in three key areas: issuer disclosure, bond market data and investor rights in insolvency;
- Development of recommendations for expanding the role of the pension fund and insurance industries as long-term investors in infrastructure projects and capital markets;
- Discussions and conferences to address policy and practical barriers to the expansion of cross-border investment in infrastructure by Islamic financial institutions; and
- International conferences to discuss broader global and regional issues and their implications for financial market development and integration in the Asia-Pacific region.

This year, APFF commenced work on two initiatives mandated by the CAP:

- The drafting of a proposed roadmap for the development of the region's financial market infrastructure; and

- The drafting of a proposed roadmap for expanding the coverage of microinsurance in developing Asia-Pacific economies.

Finally, the APFF is currently planning ways to advance the CAP's mandate to establish and promote private disaster insurance schemes, develop regional risk sharing measures and develop a roadmap for expanding the private sector's role in disaster risk financing and insurance.

This report also highlights the growing interest of APEC member economies to engage with the private sector in a wide variety of areas and confirms the importance of the CAP to the region's economic development. This year, the APFF made progress in starting new collaborative activities with various economies, such as in capital market development (with China and Thailand) and credit information and secured transactions (with Vietnam). The commencement of work on the roadmaps for developing financial market infrastructure in the Asia-Pacific region and for expanding the coverage of microinsurance has further broadened the areas for public-private sector collaboration in advancing the goals of the CAP.

Progress also continues to be made in the ongoing work on credit information and secured transactions work in the Philippines and Thailand, advancing a pilot project on cross-border sharing of credit information in the Mekong region, the development of a platform for public-private sector dialogue on fintech, support for the Asia Region Funds Passport, creating a platform for enabling Islamic financial institutions to expand cross-border investment in infrastructure, expanding the role of pension funds and insurance firms in infrastructure, and promoting a more active private sector participation in disaster risk financing and insurance.

To help advance the implementation of the CAP in coming years, this report recommends the following to the APEC Finance Ministers:

1. **Encourage relevant officials and regulators to collaborate with APFF's capacity building activities in:**
    - **promoting deep and liquid bond, repo and derivatives markets;**
    - **modernizing credit information, valuation, secured transactions and insolvency systems;**
    - **developing pilot programs for cross-border supply chain financing; and**
    - **expanding long-term investors' roles in infrastructure development.**

2. **Support APFF's efforts to develop a regional platform for public-private dialogue on harnessing fintech to create inclusive, sound and efficient financial systems.**

3. **Encourage senior finance officials to work with APFF in 2018 to finalize the roadmaps envisioned in the CAP for:**
    - **developing the region's financial market infrastructure;**

- **expanding the coverage of microinsurance; and**
- **promoting greater private sector participation in disaster risk financing and insurance.**

4. **Encourage more economies to host discussions on the Asia Region Funds Passport (ARFP) where APFF can convene experts from regulatory, industry, multilateral and academic institutions.**

5. **Encourage relevant authorities to collaborate with APFF in finalizing in 2018 a work program for the Islamic Infrastructure Investment Platform (I3P) to help expand cross-border investment by Islamic financial institutions in infrastructure.**

Asia-Pacific Financial Forum
2017 Progress Report to the APEC Finance Ministers

INTRODUCTION

The debate on globalization, long thought of as resolved, has reemerged to become the defining theme of recent political discourse. While this debate involves a complex set of issues, much of it has been fueled by discontent among parts of the electorate in developed economies that saw themselves as adversely affected by open trade policies and greater freedom for commercial enterprises to choose where they wish to do business and create jobs.

Globalization can be disruptive, insofar as it enables businesses and consumers to seize opportunities across multiple markets at different levels of development that offer varying comparative and competitive advantages. In our region, this has been reflected in the growth of cross-border investment and supply chains. It has also led to huge trade imbalances among economies and the migration of jobs, especially in many traditional manufacturing sectors, from developed to developing economies.

Predictably, trading arrangements and practices have been convenient targets of blame for these trade imbalances, and protectionist measures promoted as the logical response. However, the fact that some developed economies have performed better than others under the same globalized regime suggests that the quality of policy and regulatory ecosystems affecting the international competitiveness of businesses has as much, if not more, to do with the outcomes than trade policies.

While it may appear that developing economies have benefited disproportionately from globalization, there is also a growing realization that growth strategies focused mainly on exports and related investment are not sustainable over time. The damaging impact on emerging markets of the collapse of consumer demand in developed economies following the Global Financial Crisis prompted this rethinking, which eventually came to be reflected in the APEC Finance Ministers' decision to adopt the Kyoto Report on Growth Strategy and Finance in 2010.[1]

An important element of this rethinking is the move to shift toward a more balanced economic growth strategy that raises the role of domestic consumption in the economy relative to exports and investment, which will also help address trade imbalances. There is much to be done in this regard. The East Asia and Pacific region's

[1] "Against this backdrop, we discussed and adopted "The Kyoto Report on Growth Strategy and Finance" today, which we believe will contribute to the discussion of the APEC Leaders' Growth Strategy. In this Report, we highlight the importance of strong, sustainable and balanced growth in the future, as well as the importance of fostering sound fiscal management, particularly in light of the challenge posed to public finances by aging populations. We also draw attention to the importance of securing appropriate financing as a critical component of growth, competitiveness, employment and poverty reduction, particularly: enhancement of infrastructure finance, and improvement of access to financing for micro, small and medium enterprises and households." APEC Finance Ministers, *The Kyoto Report on Growth Strategy and Finance*, 2010.

household consumption currently amounts to 49 percent of its GDP, compared to North America's 67 percent. Combining the ratios of exports and gross capital formation to GDP, the figure for East Asia and Pacific is 63 percent, compared to 35 percent for North America.[2]

The factors behind the low level of household consumption in many Asian emerging markets are complex and manifold. Various studies in China, which is now striving to promote domestic consumption, indicate that among the key inhibitors of household consumption growth are the lack of pension and health insurance,[3] lack of access to consumer finance, financing constraints on the growth of the MSME sector and its ability to provide more employment opportunities,[4] and the lack of infrastructure and investment in rural areas.[5]

Finance plays an important role in addressing these issues, and it is noteworthy that the Cebu Action Plan (CAP) includes a number of initiatives that are geared towards this objective. These include promoting an enabling financing environment for MSMEs, including trade, supply chain and alternative financing mechanisms; expanding financial inclusion and literacy; facilitating the cross-border offering of funds through the Asia Region Funds Passport; developing disaster risk financing and insurance across the region; developing local currency bond markets in APEC economies and a roadmap to promote financial infrastructure; and various initiatives to promote bankable infrastructure projects and long-term investment in them.

The APFF is currently undertaking work to progress a number of initiatives under the CAP. These include work that has been started in previous years in the following areas:

- Collaboration in capacity building to assist interested economies in developing their financial infrastructure, in particular credit information, secured transactions and insolvency systems to facilitate and expand MSMEs' access to credit;
- Regional workshops to help relevant agencies, financial institutions and global

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2 World Bank, *World Development Indicators*.

3 See for example a recent study on consumption among migrant workers in China, which concludes that the lack of pension and health insurance is a major contributor to the low level of domestic consumption among these population groups, Xin Meng, Sen Xue and Jinjun Xue, "Consumption and Savings of Migrant Households 2008-14," in Ligang Song, Ross Garnaut, Cai Fang and Lauren Johnston (Eds), *China's New Sources of Economic Growth: Reform, Resources and Climate Change*, Volume 1 (Canberra: ANU Press 2016), pp. 159-196.

4 This is described in Zeng Gang and Li Guangzi, "Consumer Finance and its Significance," in Guogang Wang, Gang Zeng and Xuan Xiaoying (Eds), *Development of Consumer Demand in East Asia* (Palgrave MacMillan 2017). The authors also define consumer finance as including (a) payment, (b) risk management, (c) credits, and (d) savings.

5 A recent analysis of consumption patterns in China's urban and rural areas concluded that the government's efforts in recent years to improve rural infrastructure, including transportation, electricity and communications stimulated consumption in small towns and rural areas and significantly narrowed the urban-rural divide in consumption, especially of electrical appliances and durable home appliances, Li Chunling, "Urbanization and the Urban-Rural Consumption Divide," Zheng Yongnian, Zhao Litao, Sarah Y. Tong (Eds.), *China's Great Urbanization* (London and New York: Routledge 2017), p. 52.

supply chain participants identify barriers to trade and supply chain finance, innovative solutions to address these challenges and opportunities for collaboration;

- Regional public-private sector dialogues on advanced technology in finance (fintech), particularly in the areas of lending, payments and regulatory technology (regtech) to promote collaboration among regulators, industry participants and experts in developing balanced regulatory approaches;
- Workshops to assist relevant stakeholders in interested economies, including regulators and industry participants, in identifying and addressing legal, policy, regulatory and market issues to enable the effective use of repurchase agreements (repos) and over the counter (OTC) derivatives for the purpose of improving the depth and liquidity of bond markets;
- Collaboration with regulators and industry to assist in progressing and increasing membership in the Asia Region Funds Passport;
- Advice to regulators of interested economies in implementing the APFF self-assessment templates to improve availability and quality of information for capital market investors in three key areas: issuer disclosure, bond market data and investor rights in insolvency;
- Development of recommendations for expanding the role of the pension fund and insurance industries as long-term investors in infrastructure projects and capital markets;
- Discussions and conferences to address policy and practical barriers to the expansion of cross-border investment in infrastructure by Islamic financial institutions; and
- International conferences to discuss broader global and regional issues and their implications for financial market development and integration in the Asia-Pacific region.

This year, APFF commenced work on two initiatives mandated by the CAP:

- The drafting of a proposed roadmap for the development of the region's financial market infrastructure; and
- The drafting of a proposed roadmap for expanding the coverage of microinsurance in developing Asia-Pacific economies.

Finally, the APFF is currently planning ways to advance the CAP's mandate to establish and promote private disaster insurance schemes, develop regional risk sharing measures and develop a roadmap for expanding the private sector's role in disaster risk financing and insurance.

This report is divided into five sections, under which the progress of these initiatives are described:

- Expanding MSMEs' Access to Finance
- Creating deep, liquid and integrated capital markets
- Expanding the region's long-term investor base
- Fostering financially resilient communities
- Dialogue and research on the future of financial regulation

Expanding MSMEs' Access to Finance

Micro-, small and medium enterprises (MSMEs) are the most important contributors to employment and innovation in Asia-Pacific economies. Thus, enabling MSMEs to effectively participate in economic activities and global value chains, including domestic commercial activity and access to international markets and export opportunities, has always been an important objective for APEC. Accessing finance is a key challenge for most MSMEs, due in large part to inadequate legal and institutional infrastructure to support risk-based lending using transaction data and the use of a wider range of assets, especially movable assets, as collateral.

The Finance Ministers have identified these issues as priorities and incorporated them in the CAP, which called for the establishment of the Financial Infrastructure Development Network (FIDN) within the APFF as a platform for collaboration among the private sector, finance ministries, regulatory agencies and other stakeholders to support member economies in developing their credit information, secured transaction and insolvency systems. The FIDN was launched in 2015 and following this, various activities were held in the Philippines, China, Brunei Darussalam, Thailand and Vietnam.

In addition to financial infrastructure that enable lenders to expand credit to MSMEs using their movable assets as collateral, as well as transaction data of business owners, opportunities to finance business activities are also increasing as a result of new business models arising from the development of advanced technologies in finance (fintech). Recognizing these opportunities, the Finance Ministers through the CAP called for promoting the development of new financial instruments for MSMEs, addressing regulatory barriers to digital, mobile and innovative financing and developing policy frameworks for alternative finance.

Finally, the Finance Ministers also acknowledged the need to address challenges that hinder MSMEs from participating in international trade and global supply chains. MSME exporters have been disproportionately impacted by increased costs and risks from elevated penalties for non-compliance with rules, such as those related to customer due diligence, that financial institutions face in providing trade financing. The CAP included initiatives to develop regionally consistent rules to facilitate cross-border trade and supply chain finance. It also called for expanding the use of electronic supply chain management platforms; and facilitating digital, mobile and innovative working capital management techniques.

Credit information systems

Capacity building to develop domestic credit information systems

Since 2015, the FIDN has been undertaking activities to bring together experts from the private sector, international organizations and development institutions to provide advice to policy makers and regulators in several economies on reforms to create or improve their credit information ecosystems. In 2017, through the Asia-

Pacific Credit Coalition (APCC) and the Policy and Economic Research Council (PERC), FIDN continued to serve as a resource to Philippine stakeholders currently developing the credit information system. At the soft launch of the Credit Information Corporation (CIC)'s data sharing platform in Manila on April 24, APCC and PERC recognized the progress made by CIC in acquiring data in their repository that will increase access to finance for MSMEs and individuals across the economy.

In addition to work in the Philippines, the FIDN has been in dialogue with industry executives and government officials in Australia. In 2012, both Australia and New Zealand reformed their domestic privacy laws to permit lenders and other non-financial creditors to report both timely and late payment data to private credit bureaus—positions advocated by the APFF. While the credit information system has progressed steadily in New Zealand, Australia remains a negative-only credit reporting regime.

In March 2017, the Australian Productivity Commission issued an interim report calling for industry to accelerate the reporting of full-file data to private credit bureaus (a target of 40 percent coverage by mid-2017 was set) or else face a mandate to do so. The Final Report of the Productivity Commission, issued in May, extended the deadline for the coverage target to December 31.[6] Given these developments, FIDN is now considering to be active in Australia both on full-file credit reporting and cross-border credit information sharing in 2018 as Papua New Guinea (PNG) assumes the chairmanship of APEC. Cross-border credit data flows between Australia and other Pacific Island nations, including PNG, is of growing interest.

Privacy regime development and credit information

FIDN stakeholders, including ABAC, the International Finance Corporation of the World Bank Group (IFC/WBG) and the People's Bank of China (PBOC) jointly organized a conference on Personal Data Protection and Credit Reporting on 20-21 April in Beijing. The event focused on the increasingly important topic of data privacy under the new environment that financial institutions are collecting, processing and increasingly using more data.

The senior leadership members of PBOC gave keynote addresses and announced a revised direction for the development of the credit reporting market in China. About 150 policy-makers, regulators and industry executives attended the conference including speakers and participants from several APEC economies (Korea, Hong Kong, Thailand, New Zealand, USA). The conference attracted extensive news coverage.

In recent years, numerous data and analytics players have emerged in China with many claiming to be doing credit reporting or credit reference. Among others, the two-day discussions helped to clarify the difference between credit bureaus and data

[6] Australian Government. Productivity Commission, *Data Availability and Use* [Productivity Commission Inquiry Report No. 82, 31 March 2017], http://www.pc.gov.au/inquiries/completed/data-access/report/data-access.pdf.

companies and risk management firms. The discussions underscored the need for a modern personal data protection framework that balances the interests of businesses and the privacy of consumers. It is expected that the Chinese market will gradually evolve into a tiered structure with a few real comprehensive credit bureaus, a number of specialized credit reporters and many other data and risk management companies.

Preparing the way for future cross-border credit information sharing

FIDN is currently undertaking preparatory work on the CAP's initiative to develop a pathway to a common data dictionary for the region, which is a key step toward making cross-border credit information sharing possible. At the APEC Seminar on Cross-Border Credit Information Sharing on 16 May, in Ninh Binh, Viet Nam, in conjunction with the APEC Senior Financial Officials' Meeting, as well as at the Roundtable Discussion on Cross-border Credit Information in the Mekong Region convened by ABAC and IFC/WBG on 13 July in Hoi An, Viet Nam, participants discussed the outline of the data dictionary.

FIDN is also hosting discussions about a pilot project on the sharing of cross-border credit information involving five economies in the Mekong region, including three APEC member economies (China, Thailand and Vietnam) and two others (Cambodia and Laos) that could potentially indicate a way forward for other APEC economies as well as help assess its beneficial impact on MSMEs doing business across borders. Following an initial workshop held in July 2016 in Bangkok, ABAC, IFC/WBG and the State Bank of Viet Nam jointly organized the previously mentioned Ninh Binh seminar.

The main objectives of the seminar were to (a) promote cross-border credit information exchange in the region, (b) address the key elements of cross-border credit information exchange mechanism, (c) present the Mekong initiative of the cross-border credit information exchange, and (d) discuss next steps. The seminar was attended by nearly 100 participants from 21 APEC economies' central banks, global credit reporting service providers (CRSPs), industry associations, local stakeholders and other international organizations.

During the seminar, the speakers discussed the following topics: (a) the need for cross- border credit information in the context of increasing trade and foreign direct investment flows and intra-regional migration; (b) economies' perspectives on the topic; (c) the World Bank Group's general principles on cross-border credit information exchange; (d) the legal and data elements in a successful mechanism; and (e) the way forward.

Participants shared experiences in the Mekong region as well as in Europe, particularly on the role of regulators in promoting cross-border credit information exchange, the relationship between regulators overseeing credit reporting and general data protection, and what CRSPs should advocate to the regulators. Speakers from the industry association and regional CRSPs discussed the conditions for successful cross-border information sharing and mechanisms for data subjects to exercise their rights in a foreign jurisdiction to amend incorrect information.

Participants discussed the next steps following the agreement on basic guidelines among eight regional CRSPs reached at the July 2016 meeting in Bangkok and the agreement on the text of a draft memorandum of understanding between two CRSPs in different jurisdictions.

Further discussions were held at the 13 July Roundtable Discussion in Hoi An. Participants discussed the challenges arising from laws in certain jurisdictions that prevent the transfer of credit information across borders as well as from regulators' hesitancy to allow such cross-border sharing of information in the absence of clear laws. Next steps identified to advance the pilot project include (a) the use of informal mechanisms such as exchange of letters among CRSPs that have been successfully implemented and allowed in participating jurisdictions; (b) informal outreach efforts to key regulators; and (c) undertaking continued advocacy efforts focused on communicating the benefits of cross-border credit information sharing to key decision-makers in participating economies.

Finally, a baseline analysis of the current state of credit information sharing across the 21 member economies of APEC is being undertaken for FIDN by PERC and the APCC. The survey instruments are currently being designed by PERC with input from the IFC/WBG and industry advisors, and will be in the field in late 2017. The baseline results will be published either in late 2107 or early 2018.

Secured transactions and insolvency regimes

The Secured Transaction Reform (STR) sub-stream of the FIDN aims to promote an enabling environment based upon clear and predictable legal frameworks for economic development and inclusive growth. Its work is specifically focused on facilitating a diverse set of financing solutions for MSMEs, market infrastructure projects and cross-border trade and supply chains. ABAC, IFC/WBG, partnering private sector organizations and the OECD are collaborating with a broad range of institutions including international organizations, public sector bodies, private sector firms, and academic entities within interested economies.

Through workshops, direct policy maker outreach, dialogues and studies, this sub-stream seeks to:

- *Support reform* and development of secured transactions systems and insolvency frameworks among APEC economies;
- *Promote good practices and internationally accepted principles* on secured transactions legislation, including comprehensive definitions of eligible collateral, the free assignability of claims for the purposes of financing, and other provisions shown to enhance the ease of credit for MSMEs;

- *Foster the establishment and development of effective modern collateral registries* and promoting pathways to single, central and online security interests notice filing systems and comprehensive coverage of security interests on movable assets, receivables and other forms of intangible assets within the economy; and
- Partner with local economy stakeholder to *improve the capacity of lenders* in structuring, delivering and managing credits based on movable assets, receivables and other forms of intangible assets as well as the *development of the necessary operational infrastructure* such as third-party collateral management industries, electronic finance platforms and credit enhancement services to support the expansion of such credits for MSMEs, agri-business operators, domestic and cross-border traders and infrastructure companies, among others.

Since its launch in November 2015, FIDN has developed a network of leading experts in secured transactions reform to support member economies. This network encompasses multilateral development agencies, leading industry trade groups, private sector lenders, academic think tanks and universities, leading legal experts, and collateral registry officials. This diverse network provides member economies with simple, cost efficient access to global best practices and expertise across the necessary elements to achieve modern secured transaction reform, including areas such as:

- *Legislative / Model Laws*: FIDN members include experts from IFC/WBG, UNCITRAL, the US Department of State, the Hong Kong Department of Justice, the United States Agency for International Development (USAID), National Law Center, university professors, and consultants with experience in working with economies to develop modern secured transaction regimes.
- *Collateral Registry Development*: FIDN members include the Australian Financial Security Authority (Collateral Registry Registrar), the Ministry of the Economy of Mexico, and the Land Registration Authority under the Philippines' Department of Justice.
- *Training / Capacity Building*: FIDN members include the Commercial Finance Association, the predominant industry trade group for asset-based lending; and the combined International Factors Group/Factors Chain International (IFG-FCI), the leading global factoring trade organization. These trade groups, additionally joined by IFC/WBG and its experts, have deep resources and experience in providing training and capacity building to lenders and factors globally.

FIDN has also actively engaged with the Strengthening Economic Legal Infrastructure (SELI) group of the APEC Economic Committee to promote reform efforts across APEC member economies. Members of SELI have actively participated in FIDN update calls and workshops (most notably, the FIDN Conferences on Credit Infrastructure in Manila in March 2016 and in Hoi An in July 2017). Additionally, FIDN stakeholders participated in the APEC Seminar on the Use of International Instruments to Strengthen Contract Enforcement in Supply Chain Finance for Global Businesses (including SMEs) in Nha Trang, Vietnam in February 2017.

2016 Legislative and Legal Updates

In 2016, modernized secured transactions laws in both Thailand and Brunei Darussalam became effective. Brunei Darussalam launched its modern collateral registry in December 2016. In July, a new modern secured transactions law was introduced in the Philippine Congress, with passage expected within 2017. Vietnam implemented its new modernized law effective as of 1 January 2017.

UNCITRAL completed work on the Model Law on Secured Transactions, which was adopted at its convention in July. Additionally, the previously adopted Convention on Assignment of International Receivables, adopted in 2001 but not yet ratified, was submitted by then-President Obama to the US Senate for ratification. If ratified by the US, it is expected that additional UN jurisdictions will quickly follow suit, clearing the way for its effectiveness.

2016-17 FIDN Activity Summary

Since its launch, FIDN has provided expert advice to interested member economies, including the Philippines, Brunei, China, Vietnam and Thailand. Following a number of activities outlined in the 2016 APFF Progress Report to APEC Finance Ministers, various follow-up activities were undertaken by FIDN in the area of secured transactions and insolvency.

In August 2016, FIDN co-sponsored a workshop with the Bank of Thailand, in partnership with the Thai Bankers' Association, to support the introduction of the recently enacted secured transaction law, the Business Collateral Act, for policymakers, regulators and industry participants focusing on supply chain finance.

In October 2016, FIDN partnered with IFC/WBG, the government of Viet Nam and the Vietnam Banks Association to hold a Supply Chain Finance workshop in Ho Chi Minh City to further capacity building and awareness among lenders and SMEs in Vietnam of the recently implemented secured transaction law.

In November 2016, FIDN cooperated with IFC/WBG and the Supreme People's Court of Viet Nam in holding the Forum for Asian Insolvency Reform (FAIR) in Hanoi to build cross-specialty support among regional insolvency practitioners of the current secured transactions reform efforts across the region.

In December 2016, FIDN members provided support to IFC/WBG in promoting moveable asset finance in the Mekong Region, continuing to build regional capacity building, awareness and support for development of modern secured transactions laws and related infrastructure in the region.

In December 2016, FIDN stakeholders again partnered with the Government of the

Philippines in holding the 3rd FIDN Conference on Credit Infrastructure in Manila in a two day conference widely attended by policymakers, regulators, financial institutions and MSMEs. The conference highlighted the progress of the pending legislation in Congress and showcased unique and related financial infrastructure support for expanding MSMEs' access to credit being developed in the Philippines showing continued development growth and capacity building.

FIDN participated in the 1st Secured Transactions Coordination Conference sponsored by the University of Pennsylvania Law School and National Law Center which brought together academic, professionals and experts from multilateral development agencies to share best practices and enhance the effectiveness of secured transactions reform globally.

In February 2017, FIDN stakeholders participated in an APFF Conference on Creating an Effective MSME Financing Ecosystem in partnership with the Thai Bankers Association. The conference leveraged the rich knowledge and real world experience of private firms, public agencies and international organizations to provide an opportunity to identify strategies to accelerate the expansion of MSMEs' access to finance, including the areas of digital finance, digital payment platforms for cross-border finance, sharing of best practices on improving policies and regulations to address disincentives for bank lending to MSMEs.

On 12 July 2017, APFF, the State Bank of Viet Nam and IFC/WBG jointly convened the 4th FIDN Conference on Financial Infrastructure Reform in Hoi An. This conference focused on secured transactions reform region-wide and in key APEC economies, focusing on progress in Vietnam and Philippines, with strong participation from both economies. Key sessions included discussions on tackling legal reforms through the legislature, key legal provisions of a modern secured transaction law, judicial support, interpretation and implementation, and the importance of valuation practices in secured transactions reform implementation. The conference presented views from a wide range of constituents, including regulators, policymakers and private sector practitioners.

FIDN is also currently undertaking work in collaboration with SELI in preparation for their 5th Meeting, where their work focuses on online dispute resolution.

FIDN and ABAC will co-organize with the IFC/WBG and CAWD (China Association of Warehouses and Delivery under the Ministry of Commerce) the 5th Warehouse and Collateral Management Conference, which will be a 1.5-day event for bankers, policy makers, collateral managers and other relevant stakeholders. The first half-day will be about the Property Law and advocacy on the upcoming secured transactions chapter of the Civil Code.

Additionally, FIDN will participate in the APEC SME Finance Forum on 11 September in Ho Chi Minh City, and the APFF Trade and Supply Chain Finance Workshop in Thailand on 17 October, as well as provide additional support in convening workshops and roundtables in member economies, such as the Philippines and Brunei.

FIDN stakeholders also participated actively in key industry conferences, in particular the Global trade Review conferences in Hong Kong and Singapore, to advocate wider support for the reform of secured transactions laws in APEC.

In the short period since its launch in November 2015, FIDN has built a broad network of experts, enhanced and expanded its support of the reform efforts in the Philippines, and initiated supporting activities with Brunei, Thailand, Vietnam and China. FIDN hopes to build upon these successes with each of the economies through continued workshops and capacity building, as well as further support additional interested member economies.

Trade and supply chain finance

This year's APFF Workshop on Trade and Supply Chain Finance, convened on 7 April 2017 in Singapore, focused on digital trade. The discussions were set against the backdrop of a global trading environment that has been shaped by continued austerity and is facing political headwinds. While there are economic cyclical improvements, the future remains clouded by uncertainties. In a Pacific Economic Cooperation Council (PECC) survey of APEC policy makers,[7] the top risks to growth (demand side) included a slowdown in global markets (particularly in China) and a failure to implement structural changes. Protectionism was noted to be on an upward trend. There are also supply-side constraints including infrastructure, institutional quality, education and capacity.

The workshop discussed inhibitors to digital trade which included paper-based manual processes and a lack of real-time information, as well as an emerging tool-set including the Internet of Things (IoT) and distributed ledger technology (DLT) that may provide solutions. Participants concluded that digital trade is more than just digital tools and that technology and business practices are moving ahead of laws and regulations. They also agreed that modernization of legal infrastructure is key to reducing legal risks and to ensuring long-term sustainability of digital trades. The workshop identified three key issues:

- *Legal environment for supply chain finance.* Participants agreed that a legal environment that facilitates supply chain finance and new technologies supporting it is necessary. As explained by one of the speakers,[8] supply chain activity involves banks, traders, transport entities, and customs officials, among others. Consequently, an enabling legal environment requires a fresh "whole of supply chain" approach, instead of treating each legal area impacting supply chain finance as a silo. It must encompass all relevant laws that govern digital/crypto-currencies, electronic transferable documents (such as digital bills of lading), cybersecurity and the issue of cross-border data flows, tax, and evidentiary value of digital documents and their ultimate enforceability in courts

[7] Pacific Economic Cooperation Council (PECC), *State of the Region 2016-2017*.

[8] Prof. Locknie Hsu, Professor of Law, Singapore Management University.

and other commercial tribunals. The legal status of digital trade documents is important as a fundamental facilitator of cross-border digital trade.

- *Cybersecurity.* Cybersecurity is the new "trust" and enabler for digital trade. Related to cybersecurity are the issues of cross-border data transfer and storage. In the region, various measures are currently being introduced to address cybersecurity risks, but these measures could end up creating new complexities if cross-border data flows become very costly and cumbersome. A healthy balance between cybersecurity and cross-border economic data flows needs to be found.

- *Trade ecosystem approach to anti-money laundering (AML).* Effective AML efforts in trade finance requires the collaboration of a wide range of participants across the trade ecosystem, including customs authorities, logistics firms and banks. Banks handle the financing documents and not the underlying goods that the documents represent. They do not have the wherewithal to ensure that the prices of the goods are not misrepresented, that there are no discrepancies between the quantity of goods being shipped and what invoices indicate, or that trade-based money laundering is not occurring in other similar ways. Banks recognize the need for trade-based AML and invest in such efforts. However, trade-based AML can only be effective with a trade ecosystem approach that digital trade can greatly facilitate.[9]

Overall conclusions and recommendations

Workshop participants made the following conclusions from the discussions:

- In the face of the growing digitalization of trade and supply chains, effective regulatory approaches will require a variety of expertise and skills and a holistic view of the trade ecosystem. Increasing demand for and wider adoption of cross-border digital trade will amplify this need.

- To encourage the healthy growth of cross-border digital trade, cross-ecosystem expertise should be harnessed in the earliest stages to develop digital trade-related law, cybersecurity and trade-based AML. This will be important for promoting a wider and more closely shared awareness of issues and better informed considerations leading to growth-centric measures.

Platform for regular public-private dialogue on fintech

The rapid evolution of advanced technologies in finance (fintech)[10] presents today's regulators with a critical challenge. New business models, new players

[9] Bankers Association for Finance and Trade (BAFT), *Combatting Trade Based Money Laundering – Rethinking the Approach 2017.*

[10] These categories includes payments, insurance, planning, lending and crowd funding, block chain, trading and investment, data and analytics and security as described in OICV-IOSCO, *IOSCO Research Report on Financial Technologies (Fintech)*, February 2017., p. 4.

entering markets long dominated by traditional financial service providers, and the latter's embrace of new technologies are impacting regulators' mission of promoting financial stability, protecting consumers and privacy and maintaining the integrity of financial systems.

However, fintech also brings opportunities. Innovations are helping unbanked individuals and small businesses gain access to finance. New applications are enhancing business processes such as clearing and settlement, compliance, risk management and fund administration. Technologies such as blockchain and artificial intelligence are helping financial services firms improve their efficiency and responsiveness to customer needs. Emerging markets hoping to leapfrog their way to modernization will benefit from these innovations, but must adequately address emerging risks and concerns.

The impact of fintech has been most publicized in well-developed markets, particularly in Europe and North America, where favorable environments for start-ups exist and financial sectors are more diverse. In emerging markets such as those in Asia, the development of fintech has been uneven and concentrated in the areas of payments and credit, particularly marketplace or peer-to-peer (P2P) lending. Its impact is already being felt through greater access to finance in a growing number of economies. China still accounts for an overwhelming portion of fintech credit in Asia, while payments fintech has developed significantly across a broader range of markets.[11]

Nevertheless, the evolution and growth of fintech in Asian emerging markets continue to accelerate, requiring policy and regulatory attention. In two roundtables convened in 2016 under the auspices of the APFF,[12] policy makers and regulators agreed on the need to establish a regional platform to bring together stakeholders from the public and private sectors to help identify key issues in timely fashion as they arise. These stakeholders would include representatives from fintech startups and major financial institutions, related service providers, associations and experts, government and regulatory agencies and relevant international organizations.

To implement this agreement, ABAC and ADB jointly organized on 5 July 2017 at the ADB Headquarters an APFF workshop on the theme "Encouraging Innovation, Promoting Inclusion and Managing Risks" to bring together key stakeholders and discuss how to respond to this need. The workshop, held back-to-back with the ASEAN+3 Bond Market Forum (ABMF), was attended by financial regulators from

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[11] Sean Creehan and Nicholas Borst, "Asia's Fintech Revolution," *Asia Focus* (Federal Reserve Bank of San Francisco, February 2017). The APFF thanks the authors for insights that have helped in designing the structure of the workshop and guiding the discussions that are reflected in this section of the report.

[12] These were the ***APFF Roundtable on Financial Innovation: How can we harness innovation to build bigger, robust and inclusive financial markets?*** (24 February 2016, PayPal Corporate Campus, Silicon Valley, California, USA) and the ***APFF Roundtable on Financial Innovation: Fintech 2016: Challenges and Opportunities for Asian Industry and Regulators*** (15 July 2016, Co-organized by ABAC and ASIFMA and Co-hosted by the Hong Kong Monetary Authority, Hong Kong, China).

ASEAN+3 economies.

The workshop focused on two areas where significant disruption is already occurring in the region and where regulators are most concerned – payments and fintech credit. The workshop also discussed regulatory technology (regtech), where solutions in a number of key areas are being developed by industry and being tested or adopted by regulators, and provided an opportunity to share experiences in implementing regulatory sandboxes and discuss broader questions related to regulatory approaches and institutional arrangements.

Fintech Credit

Fintech credit (which includes marketplace or peer-to-peer lending, platform loans that are securitized and invoice trading) emerged to fill the financing needs of many households and small enterprises unable to obtain loans from traditional financial institutions. In Asia, this has mostly taken the form of online platforms that connect borrowers with investors. China has been by far the largest market for fintech lending in Asia, with characteristics that set it apart from other Asian markets, such as the predominance of consumer loans (as opposed to business loans) and retail investors (as opposed to institutional investors).

Despite its growth, however, fintech credit remains a small portion of the total credit market (only 3 percent in the case of China), and banks are expanding their presence by developing their online platforms or investing in start-ups. Regulation has been largely light-touch or negligible, with China among Asian markets having the most detailed focus on risk management, fraud prevention and consumer protection, while dealing with the challenge of a highly fragmented market that is not easily regulated. As fintech credit grows in volume and importance across the region, however, policy makers and regulators will need to pay increasing attention.

Participants discussed this issue, focusing on the evolution of technology, business models and regulatory responses in the areas of consumer and business fintech credit, and the use of data analytics and algorithms with respect to the development of financial identity.

Payments

The development of fintech in the payments sector is a major issue across various markets in Asia, as non-banks that largely played a supporting function vis-à-vis the banking sector in the past are now increasingly offering innovative financial services, driven by smartphone technology, Asia's huge market for payments and efforts to leapfrog old payment technologies. Many of these new services using mobile phone platforms do not alter the underlying structure of the payment system, as they continue to operate in conjunction with traditional bank accounts and credit or debit cards. However, others that provide digital wallets competing with banks and card networks for fee revenue or those offering new services such as insurance and investment promise to be more disruptive.

While still at a nascent stage, distributed ledger technology has the potential to provide speedier and more efficient clearing and settlement for trade finance, cross-border payment and syndicated lending, and smart contracts can fuel automatic payments and transfers. Wider adoption of these innovations would have disruptive effects as they replace legacy financial infrastructure currently being used, including trusted third parties such as clearing houses. The cost of remittances are likely to fall if mobile payment services, virtual currencies and pre-paid cards succeed in replacing bank-based transfers.

Adoption of these new technologies, however, face challenges in terms of regulatory frameworks (including compliance with AML rules), the lack of supporting infrastructure (e.g., availability of payment card readers) and issues intrinsic to the technology (e.g., volatility of virtual currency exchange rates). Asian regulators are responding to these challenges in various ways, undertaking research and conducting experiments. Participants discussed these issues and regulatory responses, particularly with respect to retail payments, distributed ledger technology for clearing and settlement, and digital currencies.

Regtech

While much attention has been given to the disruptive impact of fintech, technologies are being developed that can promote more effective and efficient attainment of key regulatory objectives and make compliance by regulated institutions with rules and regulations less costly and more aligned with the mission of providing inclusive and responsive financial services to the real economy. Regtech[13] solutions can help address a number of compliance and regulatory issues, including: risk data aggregation; modeling, scenario analysis and forecasting; monitoring payment transactions; identifying clients and legal persons; monitoring internal culture and behavior within regulated institutions; trading in financial markets; and identifying new regulations.

Among these solutions are those in areas such as machine learning, robotics, artificial intelligence, cryptography, biometrics, distributed ledger technology, application programming interfaces and shared utility functions and cloud applications.[14] Participants discussed regtech solutions that have been developed within the industry and are now being looked at by regulators, early results and responses so far, and the likely shape of future developments.

Regulatory Frameworks and Approaches

Even as fintech continues to evolve from its current early stages of development in the region, regulators are beginning to respond more proactively, especially in the

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[13] Regtech, as defined by the Institute of International Finance, is"the use of new technologies to solve regulatory and compliance requirements more effectively and efficiently," Institute of International Finance, *Regtech: exploring solutions for regulatory challenges*, Washington DC, October 2015.

[14] Institute of International Finance, *RegTech in Financial Services: Technology Solutions for Compliance and Reporting*, Washington DC, March 2016.

areas of payments and fintech lending. A number of regulators are turning to regulatory sandbox approaches that can support innovation by trusted partners, while closely monitoring and managing their impact on consumers and financial stability. The emergence of fintech has also lent greater urgency to finding practical solutions to key issues such as financial identity and the standardization of technology, and how existing regulations can be applied to new non-bank market participants.

Many regulators are revisiting fundamental questions, including whether to move away from regulating types of institutions toward regulating types of activities, how to achieve effective regulation across various institutions responsible for oversight of different financial subsectors and technologies, and what regulatory approach can best encourage innovation while enabling adequate risk management. Participants shared experiences and perspectives to contribute useful insights to regulators on how they can respond to the challenge of fintech.

The workshop also discussed the various responses of regulators to the emergence of new business models brought about by fintech. Regulators and industry participants agreed that it is still too early to make definitive conclusions on the way forward for the regulation of these new business models in the region, given the continuing rapid evolution of technology and the fact that fintech has not yet gone through a full credit cycle. However, regulators are responding by establishing mechanisms for cooperation to deepen their understanding of fintech, such as through the newly established ASEAN Financial Innovation Network (AFIN) and the continuing dialogue with industry and experts using the APFF platform.

CREATING DEEP, LIQUID AND INTEGRATED CAPITAL MARKETS

The capital market is a critical component of an economy's financial system. It plays a crucial role in promoting financial stability, economic growth, and the efficient channeling of long-term savings to investment in long-term assets like infrastructure. For this reason, the development of capital markets is indispensable for achieving the CAP's goals of promoting financial integration, resilience and infrastructure.

The lack of local currency bond markets was one of the main causes of the Asian Financial Crisis, which resulted from many economies' overdependence on bank lending in foreign currencies to fund long-term investments that yielded revenues in local currencies (the double mismatch problem). In the wake of the crisis, ABAC recommended to Finance Ministers the development of local currency bond markets, which gained traction a few years later with the launch of various initiatives that have led to the rapid growth of Asian government bond markets, a key stage in the process of capital market development.

To advance to the next stage, which would involve the expansion of private sector issuance and investment in and across markets, increasing market depth and liquidity will be critical. APEC Finance Ministers have incorporated into the CAP key initiatives to achieve this objective. These include the development of liquid repo markets, legal and documentation infrastructure facilitating risk mitigation, transparency of capital markets, a funds passport scheme, and a regional securities investment ecosystem to promote cross-border investment in capital markets.

Developing classic bond repurchase (repo) and OTC derivatives markets

This year, APFF continued to provide a platform for the private sector to dialogue with regulators and officials on practical steps to provide effective hedging instruments for market participants that can help improve market liquidity, especially repurchase agreements (repos) and over-the-counter (OTC) derivatives.

Developing classic bond repurchase (repo) markets is critical to the deepening of the region's capital markets and the real economy. Repo markets play an important role in increasing liquidity in local currency bond markets, expanding the pool of available finance, mobilizing collateral regionally, reducing funding costs for governments, pension funds, asset managers and other long-term investors and offering hedging tools which contribute to risk management.

Over the counter (OTC) derivatives also play important roles. They are used by firms to manage balance sheet liabilities and cash flows as well as hedge various economic risks, including interest rate and foreign exchange risks. A number of new regulations introduced to improve transparency, mitigate systemic risk and prevent market abuse are changing the landscape for these instruments, including in ways not intended but posing challenges in terms of their impact on hedging costs, bid-offer spreads and ease of trading. Emerging Asia faces additional risks of growing fragmentation with the emergence of a multiplicity of clearing systems handling relatively small transaction volumes.

Following previous seminars to undertake these dialogues in Manila, Philippines (in November 2015) and Jakarta, Indonesia (in April 2016), ABAC, the Asia Securities Industry and Financial Markets Association (ASIFMA) and the International Swaps and Derivatives Association (ISDA) convened further seminars on 22 February 2017 in Bangkok, Thailand and 16-17 March 2017 in Beijing, China in collaboration with other partner institutions.

APFF Workshop on Key Issues in Developing Thailand's Repo and OTC Derivatives Markets

This workshop, which was hosted by the Thai Bankers' Association, followed on the various steps that Thailand has already undertaken to create a classic repo market. Participants from the public and private sectors examined remaining actions to further develop the depth and liquidity of the repo market. During the workshop, experts from the industry and the private sector as well as government and regulatory agencies were on hand to discuss these issues.

Participants discussed the development of the private repo market, which consists of the repo transactions between dealers, or between dealers and clients without central bank participation. The Thai private repo market has many of the features which are essential for the development of a classic repo market, such as use of the Global Master Repurchase Agreement (GMRA) documentation and availability of close-out netting.

Nevertheless, market activity has not been as robust due to three main issues. First, market participants are not able to enter into cross border repo transactions. Second, the 0.46 percent surcharge imposed by the Bank of Thailand on deposits, including those stemming from repo business, has had a dampening effect on the level of activity. Finally, restrictions by the Securities and Exchange Commission on domestic funds (the country's largest investors) from lending out their bond inventory (as it is viewed as a form of borrowing) decrease the availability of bonds for repo transactions.

Participants also discussed a summary of the fundamental provisions of the GMRA 2000, key differences between GMRA 2000 and GMRA 2011, the 2011 GMRA Protocol, and recent case law relating to GMRA and repo documentation.

The discussions on OTC derivatives focused on the impact of the margin requirements for non-centrally cleared derivatives as agreed by the Basel Committee on Banking Supervision (BCBS) and the International Organization of Securities Commissions (IOSCO), and of the Basel capital reforms. Participants were briefed by ISDA on the timeline of the global regulatory roll-out of the margin requirements, a comparison of final rules by jurisdiction and the impact on Thai financial institutions.

Among the key messages from the discussions are the following: (a) Thai banks are caught by foreign regulations because of their trading partners. (b) Foreign trading partners contribute important liquidity to meet the hedging needs of the Thai economy; (c) The time required to negotiate new credit support annexes (CSAs), which are legal documents that regulate collateral for derivative transactions, should not be underestimated. (d) It is recommended to prioritize signing with one or more international counterparts first to maintain access to international liquidity. (e) Market participants should be prepared to meet the operational challenges of T+1 margin settlement.

The discussions on Basel capital reforms included a review of the evolution from Basel I to Basel IV, the key takeaways and industry concerns regarding the fundamental review of the trading book (FRTB), the leverage ratio and the net stable funding ratio (NSFR). The key message from the discussions is that the new Basel capital rules will have a disproportionate impact on emerging markets, and prudential regulators from these markets should carefully consider the proposals before casting their Basel Committee votes.[15]

APFF Workshop on Corporate Bonds, Repo and Derivatives Markets Development in China

ASIFMA hosted an APFF workshop convened jointly by ABAC, ASIFMA and ISDA on 16-17 March 2017 in Beijing. The conference was essentially divided into three streams: China bond market development, OTC derivatives market development and repo market development. The repo market development stream focused on how a centralized and unified repo market would work in China and on the development of China's repo market, which currently has three types of repos available, and the challenges facing the development of a classic repo market. It was concluded that the market is still overwhelmingly done on a pledged repo basis and there is a lack of clarity on close-out netting. Adoption of messaging standards and investment in infrastructure to handle margin management are some of the areas identified as helpful for the development of classic repo market in China.

Participants also discussed the legal documentation for repos, where a comparison of the repo documentations of China's National Association of Financial Market Institutional Investors (NAFMII) and GMRA repo documentation were made and similarities and differences were discussed. An outline of all the different taxes that

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[15] Specifically, the conclusions of the discussions include the following: (a) Basel IV entails segmentation of banking and trading book activities. Standard approach is the new normal, supplanting use of internal models with significant implications for capital requirements. (b) Market studies suggest an aggregate increase in risk-weighted assets of 40 percent-65 percent from Basel IV. (c) Increased FRTB capital costs fall disproportionately on emerging market trading instruments. (d) Capital Requirements Regulation (CRR) II introduces a binding leverage ratio requirement of3 percent which must be met with Tier 1 capital. (e) The leverage ratio is generally overstated for derivative trades because collateral offsets are not recognized. This has negatively impacted client clearing, which runs counter to the G20 objective to promote clearing. (f) The leverage ratio does not recognize high quality liquid assets as eligible variation margin. (g) The NSFR limits fundable collateral to cash collateral that is nettable under the Basel III leverage ratio calculation. End users will be impacted since they typically rely upon the ability to post securities as collateral.

affect the repo market was also presented.

ISDA organized two panels during the conference: one on the importance of bankruptcy reforms and of recognizing netting and settlement finality for capital market development and other legal issues with collateral, and another on margin requirements. The first panel explored in depth the wording of China's Enterprise Bankruptcy Law in the context of what it means for contractual netting rights. The panel also discussed possible self-help contractual remedies and legislative amendments or regulatory fixes that would address the lack of certainty around netting enforceability. Some of the costs and inefficiencies of trading under a non-netting legal framework were also discussed.

The second panel focused on the practical challenges of signing new, regulatory compliant CSAs with Chinese counterparties given that (a) the requirement is driven by international regulation that is not being mirrored in domestic regulation; (b) lack of netting enforceability puts Chinese counterparties at a disadvantage under US and European regulatory requirements; (c) Chinese regulators do not want Chinese counterparties to agree to "unequal" contractual terms; and (d) without agreement on new CSA terms, many international counterparties will not be able to trade with Chinese counterparties after 1 September 2017 when the (delayed) requirements come into force.

Information in capital markets

The quality, comparability and availability of information are key ingredients in bringing together buyers and sellers of both debt and equity, and are thus critical to the deepening of capital markets. The APFF [16] created three self-assessment templates, covering the investment life cycle:

- before investment: disclosure –information about a company or security;
- while invested: bond market data –individual security and aggregate information; and
- exiting investment: investor rights in insolvency –property rights; insolvency process

Deciding upon and developing these templates, the group followed four principles. First, rules made by public policy makers are integral to well-functioning capital markets. Second, dialogue with the private sector can offer insight to the most effective policies. Third, an incremental method is more manageable and effective than a big bang approach. Fourth, given the varying levels of development across Asia Pacific markets, the approach must be applicable to capital markets in any stage of maturity.

In March 2015, the templates were presented to several officials from the Philippines'

[16] The steering committee managing the APFF Capital Markets Information Sub-Stream is led by representatives of Moody's, supported by representatives from Deloitte, Asian Development Bank, the University of Hawaii, HSBC, Nomura, Standard Chartered, Clifford Chance, Nishimura & Asahi, PwC, Ernst & Young, CFA Institute and CLP Holdings.

Securities and Exchange Commission, who worked on their adoption. Following the successful engagement with the Philippines, APFF reached out to a number of regulators from other economies to both make them aware of and to fill out the templates. As to date no other economy has responded, the steering committee for this work stream will undertake a review and discuss future options on the way forward.

Supporting the Asia Region Funds Passport (ARFP)

The ARFP is a program aimed to provide a multilaterally agreed framework to facilitate the cross-border marketing of managed funds across participating economies in the region. The APFF Sub-Stream on the ARFP was established to support its successful launch. The channels for public-private collaboration created under the APFF has allowed the ARFP sub-stream to facilitate a discussion on the early enlargement of ARFP to include a critical mass of participating jurisdictions, as well as the interoperability of ARFP with other regional mutual recognition frameworks.

For the past years, the APFF convened several discussions with representatives from the international asset management and financial industries, as well as experts from the legal and consulting professions and international organizations, to provide industry feedback to regulators and officials as they worked to advance the ARFP. Among the views that garnered agreement are the following:

- *Enlargement of the ARFP*: The flexibility of the ARFP to enlarge is critical to its impact and success. The participation of as many economies as possible in the ARFP, particularly at the outset, and the opportunity for future enlargement would incentivize active participation by financial service providers in the ARFP, increasing the ARFP's coverage and thereby increasing intra-regional capital market integration, and allowing its benefits to be more widely enjoyed. ARFP's enlargement will increase investors' investment options and reduce cross-border investment costs through economies of scale.

- *Reciprocity*: Member economies should work towards according equivalent priority to promoting ARFP funds so that they are treated on a basis that is comparable to domestic funds. This spirit of reciprocity will allow the ARFP to facilitate greater financial integration.

- *Dispute resolution*: In the European funds passport arrangement – the Undertakings for Collective Investment in Transferable Securities (UCITS) – mechanisms exist for the European Securities and Markets Authority (ESMA) to resolve disputes over issues such as the interpretation of UCITS directives and disputes arising between home and host regulators or regulators and investors. There is a strong case for the creation of a resolution mechanism to help address uncertainties, disputes or issues of misinterpretation that may arise in the course of operation of the ARFP.

- *Standardization of fees and performance figures*: It is suggested that rules on the method of calculation of and disclosure of performance figures and fees in the prospectus of ARFP Funds be established in order to ensure investors are able to conduct a fair comparison of the available ARFP Funds.

- *International Recognition of ARFP funds*: It is suggested that APFF begin engaging with non-member regulators with a view to facilitating the cross-border distribution of ARFP Funds beyond member economies. ARFP Funds should eventually be permitted to be offered in non-member economies in the same way that UCITS funds may be distributed in non-EU jurisdictions.

The APFF established a Tax Task Force that completed an assessment of the key tax metrics in actual and potential ARFP participating jurisdictions. This was done to help regulators understand the detailed tax implications of ARFP, by making this assessment available to regulators in participating jurisdictions. Based on this assessment, the Tax Task Force made the following key observations, which it recommends be taken into consideration in the implementation of the ARFP:

- While there seems to be consensus that the absence of a permanent establishment (PE) created by either the passported fund or the foreign fund manager or both would generally limit adverse tax implications for either the passported fund or foreign fund manager or both, the challenge would be to align the rules and guidelines on what would constitute a PE.

- There are obvious differences in local tax rules. It is not practical to expect the alignment of tax treatment of funds in different economies under the ARFP regime. Instead, a reasonable task could be alignment within each participating economy of the tax treatment of domestic versus passported funds.

- In economies in which there are likely to be mismatches in tax treatment between domestic and passported funds, the task force looks forward to the local authorities revisiting and changing the rules to achieve tax neutrality for resident investors.

Recently, there has been a rise in regional bilateral mutual recognition agreements. Examples include the following:

- In July 2017, the Securities and Futures Commission (SFC) of Hong Kong and the Autorité des Marchés Financiers (AMF) signed a Memorandum of Understanding (MOU) on France-Hong Kong Mutual Recognition of Funds (MRF). Under this scheme eligible Hong Kong public funds and French UCITS funds will be able to be distributed to retail investors in each other's market through a streamlined authorization process. This is the first agreement between Hong Kong and a member of the European Union to establish the regulatory framework for distribution of eligible Hong Kong and French funds.
- In December 2016, the SFC and the Swiss Financial Market Supervisory Authority (FINMA) signed a MOU on the MRF between Switzerland and Hong Kong which provides recognition of asset managers and a framework for the mutual recognition of publicly offered funds in both markets.

It is important that the ARFP is flexible enough to interoperate with other regional investment schemes, such as the Hong Kong-China MRF, the ASEAN Collective Investment Scheme (CIS) Framework and other bilateral frameworks to facilitate the future convergence of the various initiatives and structures. Interoperability with other regional schemes would, as with the introduction of more economies into the ARFP, create greater economies of scale, reduce market fragmentation and improve financial market integration, while ensuring that alternatives continue to be available to retail investors.

The APFF welcomed the signing of the Statement of Cooperation on the establishment and implementation of the ARFP in June 2016 by Australia, Japan, Korea, New Zealand and Thailand. These participating economies have up to 18 months to implement domestic arrangements in accordance with the rules. The passport is expected to commence in early 2018. Over time, the aim is to ensure that all other eligible APEC economies are able to participate in the passport.

APFF collaborators conducted informal discussions with regulators in Hong Kong, Singapore, Malaysia and Chinese Taipei and spoke at industry events to encourage other member economies to join the ARFP. APFF also shared best practices, industry insights and relevant ARFP materials with the Pacific Alliance to potentially launch a similar passport arrangement in the South America region. Finally, APFF stakeholders support on-going efforts under the Financial Markets Infrastructure (FMI) work stream to address standardization of fund services (e.g., registration process, lexicons, platforms, etc.) between passporting economies.

The following are recommended to be given consideration to advance the ARFP. First, more member economies should join the ARFP by signing the Memorandum of Cooperation. APFF welcomes opportunities and invitations to provide private sector resource persons to dialogue with regulators and industry in economies that decide to consider joining the ARFP. Second, participating regulators should continue to engage the private sector on the implementation of the ARFP. Third, given that there are various mutual funds recognition initiatives in the region (Hong Kong-China MRF, ASEAN CIS, ARFP and bilateral initiatives), ARFP should explore interoperability between various initiatives to create synergies and economies of scale. Fourth, member economies that are unable to join the ARFP should be allowed to distribute ARFP funds, just as some non-UCITS member economies accept UCITS funds.

Developing the Asia-Pacific financial market infrastructure

Financial Market Infrastructures[17] or FMIs are the pillars of financial market integrity and market progress. FMIs withstood the strains of extreme volatility brought about by the global financial crisis (GFC). Since then, the importance of ensuring their continued robustness has become a foremost concern of policy makers and regulators, as manifested in the adoption of the CPMI-IOSCO Principles for FMIs. In recent years, FMIs have also increasingly taken on new roles as the global regulatory agenda focused on promoting greater transparency of transactions and greater standardization of financial products, among others. FMIs continue to stand as a bulwark against market disruptions.

Such an expansion of FMI roles is a response to new and rising complexities and costs, which need to be better understood and managed for markets to have higher levels of sustainability and economies of scale. For example, emerging capital markets can struggle with the tension between business case viability and the need for a CCP for nascent derivatives markets to avoid punitive balance sheet costs for banks operating domestically.

On top of the new changes, overseas investors continue to face existing account opening and repatriation processes that need to be streamlined, while there are funds post-trade paper-intensive services that serve as a contrast to the electronic speed of investments. Cybersecurity concerns and responses have emerged to add to this complexity that could lead markets to develop as stand-alone digital fortresses, inhibiting cross-border investment flows. There are no clear and easy answers to any of these, and other, dilemmas.

For a start, economies can consider a number of issues and needs that face FMIs, financial markets, intermediaries and cross-border investors. These include:

- how to promote transparency through a standardized and common platform for trade reporting;

[17] Traditional Financial Market Infrastructures (FMIs) encompass a variety of institutions and systems including payment systems that are systemically important, Central Securities Depositories (CSDs), Securities Settlement Systems (SSSs), Central Counterparties (CCPs) and Trade Repositories (TRs). FMIs are central to the clearing and settlement of transactions in the financial markets, the movement of money and securities, and centrally managing the counterparty risks around the world. Issues in Large Value Payment Systems (LVPS) are not included in this report since it could be discussed separately with the currency policy issues in the region.

- how to improve coordinated monitoring of markets through facilitation of cross-border data flows;
- how to maintain and broaden access to cross-border money transfer mechanisms providing the required transparency in an affordable and meaningful way;
- the standardization of market practices, account structures, operational and processing models; and
- consistent tax treatment of domestic and cross-border transactions.

Regulatory clarity and private-public sector collaboration will be key to realizing new value from untangling some of these complexities.

As reported by the Asian Development Bank's Asian Economic Integration Report 2016, "…[it] is essential to follow an FMI development strategy that is both tailored to the AEC [ASEAN Economic Community] and draws from global best practices. There is no one-size-fits-all approach for regional FMI development. While Europe primarily chose a top-down approach to financial market integration, this is not necessarily right for the AEC. Thus, existing multilateral initiatives should be intensified to provide a policy environment that is both enabling and prudent for the public and private sector to foster a balanced regional FMI development path". While this was written with reference to ASEAN, it remains equally applicable to the rest of the Asia Pacific region.

The potential benefits and goals of such collaborative efforts would be to improve market liquidity (a key issue for the growth of the region's bond markets), to streamline unnecessary costs and fragmentation of markets, to enable economies of scale, to be inclusive of economies and participants' involvement, to facilitate financing and investments, and to reduce the cost of funding from international capital markets.

In 2015, the APEC Finance Ministers called for a roadmap to improve the region's FMIs and create a regional securities investment ecosystem to facilitate cross-border investment in capital markets to deepen markets and increase economies of scale. This task was incorporated in the CAP, the Finance Ministers' multi-year blueprint for financial sector development in APEC. On 25 April 2017, an APFF symposium involving international private and public sector representatives was convened in Seoul, Korea.[18] The following are key highlights and messages from the Symposium's panels.

The roles of FMIs in the region

The panel observed that the roles of FMIs have been under the spotlight after the GFC. The GFC had prompted the G20 authorities to introduce a new suite of

[18] This was the Asia-Pacific Financial Forum Symposium ***Developing APEC's Financial Market Infrastructure***, organized by the APEC Business Advisory Council (ABAC), hosted by the Federation of Korean Industries (FKI), and co-sponsored by PayPal and Nomura Research Institute (NRI).

regulations, which has influenced and reshaped global markets. Among its recommendations were those related to the use of CCPs in the management of counterparty and liquidity risks to markets. However, domestic CCPs may not be appropriate for all APEC markets. While post-GFC regulations and rules are driving financial transactions to be further collateralized, market participants report a scarcity of high quality liquid asset (HQLA)[19] collateral. Local currency collateral, including highly rated government bonds, is often not accepted internationally.

As a result, there is generally a high level of call for standardization in many areas and the panel viewed that standardization should not only be considered in technical terms, where it is perhaps more obvious (such as the utilization of ISO20022 for messaging), but also in terms of industry expectations: as an example, harmonizing issuance documents might both help issuers streamline multinational issues and increase investors' appetite to diversify through cross-border investments. At the same time, participants also recognized the widely varying levels of development among capital markets in the APEC economies, which means that a one-size approach cannot fit all.

The panel viewed that, on one hand, FMIs should be encouraged to cooperate in a similar manner to how central banks link to each other. This cooperation should not only be in large value payments and securities settlement systems, but also in electronic payments (e-payments) that need to be interlinked internationally. On the other hand, while regional initiatives include access programs and activities to achieve inter-operability of markets, new systemic risks could arise from markets becoming more interconnected.

The panel recommended that responsible authorities be encouraged:
(a) to support the harmonization of issuance documents and efforts to enhance the transparency of securities and tax rules (including efficient disclosure framework of ultimate beneficial owner) to the regulators and authorities through the custody chain;
(b) to monitor in coordination with the region's market participants the extraterritorial effects of developed economies' rules and consider ways to address potential conflicts of laws and economic viability, especially in smaller economies, such as through adoption of international best practices ;
(c) to collaborate together with international organizations to convene workshops for the purpose of better understanding the issues, particularly in view of global tapering now becoming a more distinct possibility, addressing considerations for regional HQLA collateral; and
(d) to promote inter-operability among FMIs and participants, including financial intermediaries, to more efficiently mitigate risk and reduce de-risking or hindering financial inclusion as a result of elevated compliance costs, and to evaluate the effects of interconnectedness between markets and their potential impact.

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[19] HQLAs are assets with a high potential to be converted easily and quickly into cash.

An APEC Roadmap for the Development of Financial Market Infrastructure in the Asia-Pacific Region

Through a series of discussions before, during and after the APFF symposium, Participants agreed on the text of a proposed *APEC Roadmap for the Development of Financial Market Infrastructure in the Asia-Pacific Region*. This roadmap, which is attached to this report as Appendix 1, consists of sections dealing with securities markets' post-trade ecosystem; non-resident accounts, tax, investor identification and transparency; increasing market efficiency in relation to repo and lending as well as to derivatives; and fund services.

Securities Markets: Post-Trade Ecosystem

Driven by over a decade of new regulatory requirements at global and individual jurisdiction level as well as their implementation, in addition to legacy requirements, today's levels of post-trade operational running costs and complexities have significantly increased. Even as there are consistent analysis on the potentials of greater regional market interconnectivity[20], a cross-border market participant will face a significant level of costs that can act as a deterrent to higher levels of cross-border activities.

The panel recommended the following:
(a) The public and private sectors should collaborate to assess and promote the regional standardization of account opening documents like KYC/AML and tax reporting that needs to be completed by securities investors, be they domestic or cross-border. Standardization can only have meaningful impact if industry-wide implementation is at the regional level.
(b) Regulators should support (e.g., through clear guidelines) the use of third party industry utilities to store, manage and facilitate access of relevant parties to such standardized documents ("documentary industry utilities"). Public and private sectors should collaborate to explore the feasibility of such documentary information reuse/portability at the regional level and discuss how these goals can be better achieved and in what time frame.

Non-Resident Accounts, Tax, Investor Identification and Transparency

In capital markets, account structure refers to omnibus or direct holding under the beneficial owner name, and its requirements are often determined by macroprudential considerations related to management, cross-border tax, transparency, reporting and operational requirements. This panel discussed account structure in the context of cross-border investments and covered various stages of intermediation.

The panel recommended that responsible authorities be encouraged to consider the

[20] "An analysis of Asia's cross-border asset and liability holdings finds that Asia's financial links with the rest of the world remain stronger than those within the region", Asian Development Bank, *Asian Economic Integration Report 2016*.

following:
(a) Local markets should feel free to choose the account structure they consider appropriate, whether it be direct holding, omnibus or a mix of both. The omnibus account structure is the preferred option for attracting cross-border investment flows to the market. Both account structures can coexist. Ideally the omnibus account structure should be combined with the nominee concept legal structure.
(b) Cross-border investments are facilitated where there is either no tax or a simple tax scheme (i.e.: a withholding tax based on a Record Date principle); there is no capital gains tax based on a price difference or a tax calculated on a holding period (which is unmanageable on a cross-border basis); tax is imposed at source rather than refunded (refunds are best limited to corrections post payment), involves a one-time certificate instead of requiring yearly certificates or a certificate per payment, and local notarization of tax certificates or supporting documents are not required.
(c) It is important to find the right balance between transparency and market efficiency. Responsible authorities should review whether legal frameworks support requests to report investors' information and undertake legislative reforms if they do not. Securities regulators should introduce requirements for bond prospectuses to facilitate investors' information reporting requests.

Increasing Market Efficiency: Issues specific to Repo/Lending

Liquid and well-functioning repo and securities lending markets are essential to the efficient allocation and movement of capital and collateral through the financial system. They also play a role in facilitating the diversification of risk among different types of market participants across economies. The relatively diverse range of Asia-Pacific markets' growth stages gives rise to additional regional issues and challenges in developing consistent practices.

The panel recommended that both responsible authorities and market participants be encouraged:
(a) to continue to pursue various initiatives, including promulgation and promotion of international best practices and formulation of codes of conduct; and to further develop and improve the market, by ensuring very clear principles on regulatory expectations on capital raising and investment;
(b) to review the local practices if they adopt the international standard documentation such as the GMRA and the Global Master Securities Lending Agreement (GMSLA) and undertake promotionally initiatives if they do not, including reflecting some locality to be reflected in the standard contract document; e.g. in the form of annex, through the collaborative work with market practitioners and wide variety of stakeholders including industry associations; and
(c) to support constant dialogues with the industry representatives through public-private platforms including APFF, the Pan Asia Securities Lending Association (PASLA), International Capital Market Association (ICMA), ASIFMA, and ABMF to review current policies and practices could effect as a barrier and undertake reforms if they do.

Increasing Market Efficiency: Issues specific to Derivatives

Greater regulatory transparency in the OTC derivatives markets is a key public policy goal that was codified at the September 2009 Pittsburgh G20 summit. In order to help improve regulatory transparency, a number of critical milestones need to be met. The active support and cooperation of a range of stakeholders – regulators, market participants and market infrastructure providers will be required.

The panel recommended that capital market regulators be encouraged to:
(a) review whether their reporting requirements are harmonized, data requirements from market participants can be streamlined and consistent within and across jurisdictions, and undertake regulatory reforms if they are not;
(b) adopt standards for derivatives reporting, and those that have not yet deployed their rules should avoid introducing unique requirements;
(c) review whether current regulations hinder sharing derivatives trading information across borders, and undertake reforms if they do;
(d) defer to each other's regulatory regimes where their intended outcomes are consistent by adopting equivalence decisions;
(e) review the level of inter-operability between trade repositories and promote and incentivize the sharing of data; and
(f) leverage cooperation with other authorities to achieve their objectives: both for sharing lessons learnt, as well as sharing data by designating jurisdictional, regional and global leaders to spearhead the aggregation effort.

The panel also recommended the removal of barriers to sharing of data and information between regulators.

Fund Services

In an era where more investors are investing for retirement income and can benefit from the diversity of funds offered by funds passport initiatives like the ARFP, managing industry costs is important to facilitate these investors' activities. Automation is also required to bridge the "mismatch" between slower post-investment paper and inefficient spaghetti processes and the higher speed of electronic investments.

A regulator-supported funds back-office processing utility will be needed to progress this key industry that can support individuals' wealth management, pension accumulation and drawdown – in the later cases, reduction of unnecessary costs to preserve returns will be important.

Amid the call to better understand different fund services in the region and develop recommendations for standardized practices, a consultative body of CSDs was established under the name of Asia Fund Standardization Forum (AFSF) in 2015. However, it will be important to note that standardization activities will only have meaningful impact if industry-wide implementation is encouraged on the regional scale, as failure to do so will result in a development of multiple standards that are not harmonized.

The panel recommended that capital market regulators be encouraged to:
(a) establish standardized registration process for funds between passporting economies to ensure that benefits of streamlined regulations are felt by the market;
(b) lead the standardization in the terminology used between fund markets for market players to communicate and report effectively for cross-border transactions; and
(c) support the development of industry fund platform utilities

Data management and technology

In addition to the discussion focusing on FMIs, in order to promote the common understanding of the current status and priority issues to be addressed in the public-private platform in region, symposium participants discussed emerging issues in data management and technology in financial markets.

Fintech

Advanced technology in finance (fintech) is rapidly changing the shape of how financial services are delivered to clients as well as managed by institutions and monitored as a whole financial market. The discussions covered three key focus areas: KYC, e-payments, and cybersecurity.

Disruptive technologies / new FMI-like entities

Disruptive technologies such as distributed ledger technologies, robo-advisers or artificial intelligence bring promises of better data management, faster access to data and cost reduction for the usage of that information, benefiting a growing financial product customer base through digitization.

However, these new technologies also bring risks such as technological and operational risks arising from immature systems; fragmentation risks due to a lack of technical and data standardization for mainstream and cross-border usage; cybersecurity and data confidentiality risks; and legal risks, considering the existing regulatory uncertainty around their use, especially for cross-border activities, and the legal protections that are available (particularly in a consumer context).

As such, the panel urged FMIs and the private sector to continue experimenting and contributing to industry's awareness and knowledge to overcome the maturity challenge. Collaborative work with regulators will bridge the gaps with the needs for new regulatory frameworks.

The panel recommended the following:
(a) FMIs should experiment and contribute to the research and development exercise required to overcome the maturity challenge. They should work collaboratively with regulators, the financial industry and the broader public sector. Such collaborative experimentation is important not only to contribute to maturing

these technologies further but also to better understand them, ensure focus on the right problems to be solved and identify as well as understand the risks. It also helps getting the necessary buy-in for when an implementation decision needs to be taken. (b) Regulators and FMIs also need to collaborate across markets to agree on harmonized domestic legal frameworks supporting the implementation of such new technologies and ensure cross-border regulatory certainty.

Most recommendations presented in this report are suggested to be implemented starting within the next two to three years to further foster forward looking, robust and streamlined capital markets.

EXPANDING THE REGION'S LONG-TERM INVESTOR BASE

Retirement income and long-term investment

Insurers and pension funds play a critical role in the development of capital markets and financing of infrastructure projects. The long-term liabilities of insurers and pension funds are an ideal match for long-term assets such as infrastructure that can provide adequate returns to meet future emergency and retirement needs.

Mobilization of such large pools of long-term capital by insurers and pension funds to finance long-term infrastructure investment in Asia would represent a "triple win" for consumers, the financial sector and APEC member economies:

- Consumers receive high and stable returns for long-term savings.
- The financial sector is able to access deeper capital markets for infrastructure investment.
- Governments obtain relief from large contingent fiscal liabilities.

This "triple win" could be achieved by addressing three gaps that profoundly limit the development of both insurance and pension coverage and capital market development in APEC economies:

- **Pension/Protection Gap**: The 2015 and 2016 APFF Progress Reports listed high-level recommendations and measures that promote the development of retirement income system and ensure adequate retirement savings as well as adequate lifetime retirement incomes, and described three key means to address this gap: (a) mandatory provision for retirement savings at a sufficient replacement rate to fund retirement; (b) tax relief to promote long-term savings products; and (c) product and distribution innovation and financial awareness. Altogether the system promotes public financial awareness, ensuring a diverse range of retirement income products and improved financial security for the region's rapidly growing number of retirees.

- **Infrastructure/Investment Gap**: Inadequate infrastructure investment has been a long-standing issue in emerging Asia (outside of China). At the same time, Asia's huge savings are still being mostly channeled into short-term bank deposits and government securities in mature markets. The 2016 APFF Report noted the following possible solutions to address the dearth of investable assets in Asia, particularly in infrastructure: (a) promotion of infrastructure as a defined asset class; (b) increased fiscal spending by Asian sovereigns within macroeconomic parameters suitable for developing economies; and (c) adoption of various financing vehicles, with a broader public-private partnership framework to promote long-term infrastructure investment.

- **Regulatory/Accounting Gap**: The 2016 APFF Progress Report recommended that APEC economies should adopt accounting, solvency, investment, and securities standards supportive of the development of retirement savings and infrastructure investment. To encourage insurers and pension funds to engage in long-term investments and retirement solutions, barriers arising from regulations and accounting should be removed, and policies that are suitable for long-term business should be promoted. Global solvency and accounting standards should be designed in a way to incentivize companies to improve risk management and adopt best practice. The main regulatory issues identified by the APFF, in particular, for insurance companies and corporate pension funds, are: (a) bank -centric regulations; (b) short-term oriented economic regimes; and (c) one-size-fits-all model. Remaining key accounting issues identified by the APFF are: (a) level of aggregation; (b) scope of variable fee approach; and (c) transition.

- It was recommended that APEC Finance Ministers encourage the participation of all relevant public sector stakeholders in dialogues with the private sector to address barriers to long-term investment. APFF intends to promote active participation of the private sector in relevant conferences and to convene workshops in the region involving a wide range of stakeholders.

The 2017 work plan and its progress in each of the three areas are described below.

Pension/Protection

The APFF intends to coordinate with global initiatives (i.e. OECD, [21] World Economic Forum or WEF[22]) and the pension industry (i.e., Asia Pacific Investors Cooperation or APIC) and to hold dialogues with both pension and insurance regulators.

- ***APFF/APIC Regional Pension Funds and Social Security Systems Summit, 5-6 December 2017, Hong Kong, China***. The APIC Summit is a private and confidential, 360-degree in-depth coverage of the Asian pension funds and social security systems, with participation and support of key stakeholders: policy makers, regulators and asset owners (pension funds, social security systems, insurance), plan participants and investment management companies' leaders. This year, as

[21] OECD is currently planning to collaborate with the APFF to convene a conference on pensions, insurance and long-term investment in infrastructure in Asia.

[22] See the pension white paper from the World Economic Forum (http://www3.weforum.org/docs/WEF_White_Paper_We_Will_Live_to_100.pdf).

pension and retirement systems are pressured to focus on returns and sustainability, the APIC network of pension funds will also focus on infrastructure investments. Delegates include APIC network members (central banks, treasuries, ministries of finance, pension funds, social security systems, trusts and insurance companies) and their international counterparts. The APIC Summit provides an exclusive venue where strategies, successful implementation of innovative asset allocation, and concerns affecting the retirement industry are discussed in confidence. Summit highlights include asset owners and stakeholders presenting case studies of successful collaborative investments into infrastructure and other alternative assets. Regulators and asset owners present the latest initiatives in providing maximum fund choices to plan participants. High-level discussions and presentations by select Asian emerging economies' policy and capital markets delegation. The APIC Regional Pension Funds Infrastructure Investment Survey is also presented. APFF as Summit Co-Host shall invite APEC Finance Ministers and relevant senior leaders to speak and participate at the Summit, and intends to deliver key messages to the summit participants.

The APFF continues to study selected APEC economies and examine gaps and potential solutions on retirement income and longevity solutions. The following are some examples of the recent developments in the region:

- ***Thai Government introducing a new mandatory provident fund scheme***: The Thai government is planning to introduce a new mandatory provident fund scheme to address the issue of low coverage of the existing voluntary scheme. In 2016, only 2.8 million private company employees were taking part in the scheme out of a workforce of 38 million. The draft new scheme will require companies with 100 employees or more and without a comparable scheme to participate at the inception (estimated to be in 2018), and companies with fewer employees to comply at a later date. For the first three years, the new mandatory scheme will require employers and employees to each contribute 3 percent of the salary, with the contributions capped at 60,000 baht per month. Thereafter, the contribution rates for both employers and employees will gradually increase by 1 percent per year to a maximum of 10 percent over seven years.

- ***Malaysia's Employees Provident Fund (EPF) receives innovation award for its retirement advisory service***: Malaysia's EPF was awarded the 2016 World Pension Summit Innovation Awards in the Communications category for its Retirement Advisory Service (RAS). First introduced on July 1 2014, RAS serves as a platform for EPF members to obtain free personalized advice on their EPF savings and retirement planning from EPF's trained officers. The initiative has quickly expanded over the past years and is now serving customers through 43 advisers at 18 RAS branches nationwide. In addition to advice and investment counselling, RAS also conducts awareness and educational programs on basic financial and retirement planning. RAS is EPF's effort to enhance its service delivery, thereby transforming its traditional transactional services model into an advisory-based relationship with its customers.

- ***Australian government's consultation on the Discussion Paper:*** The Australian Government recently conducted a consultation on the discussion paper to develop a framework for the retirement phase of superannuation (see its one-page fact sheet[23]). The Australian government realized that retirees are faced with complex financial decisions and are often unsure what to do with their retirement savings. In addition, they have very limited post-retirement solutions that manage longevity risk. As a result, many retirees are drawing down their pension savings very conservatively, for fear of outliving their savings. To address this, the government is exploring a framework that meets 3 requirements: income, risk management and flexibility. The product would have a higher income (15-30 percent higher than Account Based Pensions), and it would be flexible, without increasing the risk of outliving retirement savings.

- ***Life Annuity Scheme in Hong Kong:*** With Hong Kong having the highest life expectancy in the world (87 years for females and 81 years for males, according to the Japanese Government's figures in 2016), it is important for retirees to have adequate savings saved up during the accumulation phase. But it is equally important to focus on the decumulation phase, with the ultimate objective of providing a steady income stream during retirement. Commissioned by the Hong Kong government, the Hong Kong Mortgage Corporation Limited (HKMC) announced the launch of a public annuity scheme in April 2017. It is a first step in helping retirees turn lump sum cash into lifelong streams of income. The scheme will provide guaranteed fixed monthly annuity payment to annuitants (aged 65 or above who are Hong Kong permanent residents) until his/her death. A lump-sum premium payment to the HKMC has a tentative cap and floor of HK$1 million and HK$50,000 respectively. An independent consultant has verified and validated the internal rate of return can be set at 4 percent, translating into monthly fixed payouts of HK$5,800 for male and HK$5,300 for female per HK$1 million premium paid. The scheme also comes with a death benefit provision – which guarantees each annuitant to receive monthly annuity payments with total amount equal to 105 percent of the premium paid and in the event an annuitant dies before receiving 105 percent of the premium paid, his/her beneficiary(ies) will receive the remaining unpaid monthly instalments or a lump-sum amount. The scheme is expected to be launched in mid-2018, subject to the support of the Hong Kong Monetary Authority and the authorization by the regulatory authority for the insurance sector.

Infrastructure/Investment

The APFF is coordinating with global (i.e. Global Infrastructure Hub, OECD, WEF) and ASEAN initiatives (i.e. ASEAN Insurance Council) and the securities industry (i.e.

[23] https://consult.treasury.gov.au/retirement-income-policy-division/comprehensive-income-products-for-retirement/supporting_documents/CIPR%20Factsheet.pdf.

ASIFMA), and undertakes dialogues with selected APEC economies (i.e. Indonesia, Vietnam, Philippines, Thailand).

- ***APFF/APIP Dialogue with Indonesian Government on PPPs in Waste Management on 14 March in Jakarta***: The APFF collaborated with APIP, the Government of Japan and the Government of Indonesia in capacity building to help promote a pipeline of bankable PPP projects in waste management in Indonesia.

- ***APEC Finance Ministers Process Seminar on Long-Term Investment in PPP on 17 May in Ninh Binh***: The APFF provided inputs to the work of FMP on risk allocation in PPPs, development of a pipeline of bankable infrastructure waste-to-energy projects, and promoting long-term investment in infrastructure from pension funds, insurance companies and Islamic financial institutions.

- ***APFF Roundtable on Long-Term Investment in Infrastructure on 25 July in Toronto***:[24] Confronted with aging populations, lengthening life spans and a low-interest rate environment, institutional investors are seeking greater portfolio diversification and more profitable investments in long-term assets that match their long-term liabilities. This Roundtable was held to help address issues, including the lack of capacity in many developing economies' public sector to bring bankable projects to the market, the dearth of deep and liquid local currency bond markets that are the usual channels for long-term investment in infrastructure, and the lack of capacity of most pension funds and insurers to directly manage infrastructure assets, especially in developing economiesIt brought together key stakeholders from the public sector, the investor community, infrastructure experts, and multilateral and specialized institutions to identify forms of collaboration that can directly facilitate investment in infrastructure.

The APFF continues to study selected APEC economies and examine possible improvements to attract long-term investors, including financing vehicles, green finance, and survey on infrastructure investments[25].

- ***Rethinking risk allocation in PPPs:*** Over the past decade, the flow of funds to infrastructure has increased dramatically and is now projected to continue to increase for years to come. Prequin reports that AUM grew from $25 billion in 2005 to $332 billion in 2015. Allocations to infrastructure are also increasing, from current allocations of 3.5 percent in 2011 to 4.3 percent in 2015. However, target allocations are still not being met, with a 2015 target allocation average of 5.7 percent and only 4.3 percent currently allocated. The bottlenecks in Asia preventing capital from flowing to meet demand include insufficient awareness

[24] This is the APFF Roundtable on ***Expanding Trans-Pacific Opportunities for Long-Term Investment in Infrastructure***, co-organized by ABAC with the Asia-Pacific Foundation of Canada in collaboration with the GIH, OECD and World Bank's Global Infrastructure Facility and sponsored by the Governments of Canada and Ontario.

[25] APIC is conducting a survey on infrastructure investments in ASEAN region and intends to present the result at APFF/APIC Summit on 5-6 December in Hong Kong.

of investors, inadequate legal and regulatory frameworks, poorly structured and prepared projects, inequitable risk allocations, lack of capacity by governments to manage projects, and imbalance between risk and return. At the 2016 Executive Dialogue with APEC Finance Ministers in Lima, there was an acknowledgement by Ministers that governments need to rethink how risk is allocated between the public and private sectors in PPPs. Key to growing and incentivizing long-term investment in infrastructure is a deeper understanding by policymakers of the risk appetite of different investors. PwC has undertaken a qualitative survey to provide an investor perspective, and preliminary findings were presented at the APEC Seminar on Long Term Investment held in Ninh Binh on 17 May. The seminar underlined the need for further dialogue between stakeholders on how to address regulatory, foreign exchange, construction and other types of risks so that they do not deter investment.

- ***The IFC/WBG's PPPs in infrastructure***: IFC/WBG has partnered with insurers Prudential and Allianz to create a new fund that allows institutional investors to increase their exposure to emerging market infrastructure with managed risk. Institutional investors establish and fund special purpose vehicles for co-investment with IFC in emerging market infrastructure. When IFC/WBG provides debt financing for infrastructure projects, it offers a portion of each new loan to the special purpose vehicles on the same terms and conditions as IFC/WBG's lending. This approach helps to overcome one of the major barriers to institutional investors allocating more of their assets to infrastructure, which is their preference and/ or regulatory requirement for investment-grade risk/return profiles. The joint fund addresses this by providing a first-loss tranche of up to 10 percent of each partner's portfolio, supported by guarantees from the Swedish International Development Cooperation Agency (SIDA). The partnership enables each US$1 invested by IFC/WBG and SIDA to mobilize an additional US$8-10 from a third party. East Spring Investments, the Asian asset management business of Prudential plc, has raised $500 million for the fund.

Regulation/Accounting

The APFF participates in global and regional conferences and meetings to discuss relevant regulatory and accounting issues. The following are some examples of external conferences, for which the APFF provided or plan to provide inputs:

- 17th OECD/ADBI Roundtable on Capital Market and Financial Reform, Tokyo, 2-3 March
- 3rd Indonesia Infrastructure Finance Conference, Jakarta, 17-18 May
- OECD/NAIC/OIC Joint Roundtable on Insurance and Retirement Savings in Asia, Bangkok, 20-21 September
- 5th Insurance China International Summit, Shanghai, 22-23 September
- OLIS 50th Anniversary Life Insurance Symposium, Tokyo, 25-26 October
- 24th IAIS Annual Conference, Kuala Lumpur, 2-3 November
- 36th FIDES Conference, El Salvador, 12-15 November
- 27th CNSF International Conference, Mexico City, 16 November

- 28th Pacific Insurance Conference, Hong Kong, 19-22 November
- 20th ASEAN Insurance Regulators' Meeting and 43rd ASEAN Insurance Council Meeting, Vientiane, 21-24 November
- 4th NAIC Asia Pacific International Forum, Honolulu, 29 November – 1 December

In its 2014 Interim Report, the APFF identified regulatory and accounting issues and high-level recommendations to implement approaches in promoting long-term investment and longevity solutions by insurers and pension funds. The APFF also supported ABAC in drafting a comment letter to the International Association of Insurance Supervisors (IAIS) on the risk-based global insurance capital standards (ICS) on 20 January 2015, a comment letter to the IASB/FASB on insurance contracts on 10 October 2013 and a comment letter to the IASB on the Conceptual Framework for Financial Reporting. As the 2015 and 2016 APFF Progress Report also highlighted, the APFF has engaged in continuous outreach and dialogue with policymakers, regulatory authorities and accounting standard setters, international (i.e. IAIS, IASB, OECD, World Bank) and regional institutions (i.e. ADB, ASEAN, NAIC, ASSAL), based on the list of identified issues and recommendations:

- ***IAIS work on risk-based global ICS:*** On July 21, the IAIS released the risk-based global insurance capital standard (ICS) Version 1.0 for extended field testing. This represents a significant step towards the development of ICS Version 2.0 in late-2019. ICS Version 2.0 is expected to achieve a greater global convergence as the IAIS continues progressing towards the ultimate goal of a single global standard delivering substantially the same outcome across jurisdictions.

- ***Dialogue with IAIS:*** The APFF held bilateral meetings with the IAIS Secretariat and key IAIS members and participated in various IAIS conferences and meetings to be engaged in active discussions on key issues for the Asia-Pacific region. The APFF's key messages included the following: (a) ICS should take into account the specific nature of the insurance business, avoid bank-centric capital weighted rules, and consider the characteristics of long-term assets supporting long-term liabilities as well as the effect of asset diversification. (b) An economic based regime should have a long-term vision. Short-term oriented mark-to-market valuation may produce significant volatility for long-term business, which may not be conducive to the insurers' capacity to meet long-term obligations. Insurers should be allowed to invest in assets with long-term growth opportunities, such as infrastructure investments. (c) International standards should be principles-based and aim to achieve comparable outcomes by taking into account the region's diversity. Regulators are now generally aware of the issues identified by the APFF, and are considering various measures to mitigate their negative impact on long-term business and investments. A number of IAIS members in the region noted the relevance of APFF's recommendations to promote long-term investments and business, and requested the APFF to provide more inputs.

- ***IASB issued IFRS17:*** On 18 May, IASB published a new standard, IFRS 17 (Insurance Contracts), which would require insurance liabilities to be measured at a current fulfillment value and provide consistent and principle-based accounting requirements for insurance contracts. IFRS 17 supersedes IFRS 4 (Insurance Contracts) and is effective for periods beginning on or after 1 January 2021, with earlier adoption permitted if both IFRS 15 (Revenue from Contracts with Customers' and IFRS 9 'Financial Instruments) have also been applied.

- ***Dialogue with IASB:*** The APFF held bilateral meetings with some IASB Board Members and engaged in constructive discussions on key issues, which may ultimately facilitate the implementation of IFRS in the region. As a result, we observed some improvements in the final IFRS17 from the 2013 Exposure Draft, including the permission of optional OCI, a measurement model for participating contracts under some conditions where changes in the estimate of the future fees that an entity expects to earn from participating contract policyholders are adjusted against the CSM (so-called "variable fee approach"), and alternative approach for CSM at transition. These changes would address some of the issues identified by the APFF. Remaining key issues include level of aggregation and scope for variable fee approach. While the IASB made some improvements on these areas, there are some technical and practical aspects yet to be addressed. The APFF intends to be involved in the interpretation and implementation processes, in cooperation with European and North American representatives, who share similar concerns, and assist the IASB in reflecting economic reality and long-term nature of the business, and avoiding the creation of disincentives for insurers in undertaking long-term investments and business.

- ***Dialogue with regulatory authorities in the region:*** The APFF has engaged in dialogues to exchange views on regulatory and accounting issues with the insurance regulatory authorities in the region, including Brunei, China, Chinese Taipei, Hong Kong, Indonesia, Japan, Malaysia, Singapore, Thailand, and the United States.Most recently, the APFF convened a dialogue with the Indonesian insurance regulator (OJK) on 19 May in Jakarta to discuss retirement, long-term investment in infrastructure, regulatory and accounting issues.[26]

- ***Coordination with ASEAN:*** The APFF and the ASEAN Insurance Council have coordinated to make consistent recommendations and communicate with the ASEAN Insurance Regulators. The APFF also had a dialogue with the ASEAN Secretariat on 19 May to discuss key issues and emphasize the collaboration between APFF and ASEAN to promote sustainable, resilient and inclusive long-term growth of the APEC and ASEAN economies.

- ***Coordination with other stakeholders:*** The APFF has coordinated with the Geneva Association, Institute for International Finance (IIF) and Hub Group so that their global positions properly reflect Asia-Pacific perspectives.

The APFF continues to study selected APEC economies and examine regulatory and

[26] The APFF is planning to have a similar dialogue with Thai insurance regulator (OIC) in September in Bangkok.

accounting issues and consider possible implementation support:

- ***APFF Roundtable on Insurance Regulations and Accounting on 31 October in Hong Kong***: To better understand key issues and support implementation on recent development, including IFRS17, the newly published standards on insurance contracts, the ICS, and new solvency regimes in the region, the APFF is holding a roundtable hosted by Deloitte China in collaboration with the Hong Kong University of Science and Technology to allow the IASB and key stakeholders in public and private sectors to exchange viewpoints and discuss key issues on insurance regulations and accounting in the region. Unlike Solvency II in Europe, a number of local regulators in the Asia Pacific region are considering IFRS 17 as the basis for the solvency balance sheet, in which case the impact of IFRS17 would go beyond financial reporting, and may produce unintended consequences. The APFF intends to assist in analyzing such indirect impact, identifying issues (i.e. choice of discount rate, treatment of CSM/risk adjustments), and considering possible solutions in selected APEC economies.

Communication Strategy

The APFF intends to enhance communication with stakeholders by focusing on key messages and explore various effective communication tools (i.e. video interviews, short movies, cultural performances) to promote sustainable, resilient and inclusive development with diversity in APEC economies.

Enabling Islamic financial institutions to expand cross-border investment in infrastructure

Islamic finance has significant potential to meet long-term funding needs for infrastructure projects, which are suitable for its asset-based and risk-sharing nature.[27] At the 2015 APEC Finance Ministers' Meeting hosted by the Philippines in Cebu, ministers and the private sector discussed the development of an Islamic Infrastructure Investment Platform (I3P), in order to facilitate the mobilization of capital in Islamic institutions to fund infrastructure across the region.

In October 2015, the government of Brunei Darussalam hosted a workshop in collaboration with the APEC Business Advisory Council (ABAC) Brunei, the Asia-Pacific Infrastructure Partnership (APIP) and the Asia-Pacific Financial Forum (APFF). In May 2016, the government of Malaysia, in collaboration with ABAC Malaysia, hosted an APFF workshop to develop concrete proposals on the structure and mission of the I3P. In February 2017, ABAC Thailand and the Thai Ministry of Finance led discussions in Bangkok on the way forward to advance this initiative. Participants in these

[27] The World Bank's latest global report on Islamic finance estimated total Islamic banking assets at US$1.9 trillion, outstanding sukuk issuance of US$310.9 billion and Islamic assets under management at US$60.6 billion in 2014. Growth rates have been high and the future is promising as financial access increases among the mostly young 1.5 billion Muslim customers in coming years. World Bank Group, *Islamic Finance: A Catalyst for Shared Prosperity*, 2016.

discussions agreed on the following proposed features of I3P:

- I3P would provide a platform for collaboration among public, private, international and academic experts to address the key obstacles to the expansion of cross-border investment by Islamic financial institutions, especially long-term investment, in infrastructure projects in APEC economies.

- I3P would be developed under APFF with the support of Brunei, Malaysia, Thailand and other interested APEC member economies, and will be open to participation by other APEC members as it develops. It is hoped that I3P's success in addressing key issues would lead to more cross-border investment in infrastructure among participating economies, as well as more investment from leading Islamic financial centers to the region.

- Stakeholders will include experts drawn from Asian Development Bank, World Bank Group, Islamic Development Bank, the Sustainable Infrastructure Foundation, the APFF's Retirement Income and Insurance Work Stream, the APIP, institutional investors, financial institutions, industry associations, legal and consulting firms, government agencies, academic organizations, regulatory bodies and other relevant institutions.

- I3P will have a small secretariat based in a location agreed upon by the pathfinder economies. The funding for the secretariat may be provided by the public or private sector or both, or may be shouldered by an existing organization. During the initial stage, a small APFF task force led by the Brunei private sector would play a provisional secretariat role, while undertaking activities and discussions leading to the establishment of the secretariat. The role of the secretariat would be mostly coordination, maintenance of a directory of experts participating in the initiative, and collection and management of information related to definitions, projects and others needed to meet the goals of the initiative.

- Actual work would be undertaken by stakeholders on a volunteer basis, organized around a number of work streams led by volunteer Sherpas agreed upon by the pathfinder economies. Activities would be undertaken on a self-funded basis. Participating organizations will be encouraged to host activities. Participants will be responsible for financing their own travel and accommodation through their own institutions or sponsors. Funding may be solicited from appropriate sources for projects that require significant dedication of time and effort, such as research projects or surveys.

Participants have identified priority issues that need to be addressed by dedicated work streams, which are as follows:

- development of ***common definitions*** of Sharia-compliant infrastructure projects and financial instruments acceptable in all pathfinder economies;
- development of Islamic ***hedging instruments***;
- development of ***financial instruments suitable for infrastructure investment*** from Islamic pension funds and takaful;

- identification of discriminatory ***tax policies*** in pathfinder economies and actions to address them; and
- development of ***project preparation tools*** for participating economies and possible pilot projects.

An APFF conference will be convened in 2017 to discuss how these priority issues could be addressed in concrete terms, and develop a proposed initial work program for the I3P.

FOSTERING FINANCIALLY RESILIENT COMMUNITIES

The Asia-Pacific is the world's most natural disaster-prone region on the planet. For decades, it has recorded the biggest number of natural disaster events. Their economic consequence has been enormous, which is attributable to growing concentration of population and economic activities in hazard-prone areas. In addition to their vulnerability to natural disasters, many people belonging to the low-income segments of society, including owners of micro- and small enterprises, do not have access to insurance services.

To address these issues, APEC Finance Ministers included in the CAP deliverables to establish and promote private disaster insurance schemes and to develop a roadmap and network of experts through the support of APFF for expanding the coverage of microinsurance in member economies. This report highlights the work being undertaken in APFF with respect to disaster risk financing and insurance (DRFI) and microinsurance. In particular, APFF this year completed the draft of a proposed roadmap for expanding the coverage of microinsurance in the region, which is attached to this report as Appendix 2.

A roadmap for expanding the coverage of microinsurance in APEC

Effective risk management through microinsurance is critical for low income individuals and micro and small enterprises, especially in developing economies. However, only around 5.2 percent of people in emerging markets worldwide are currently covered by micro-insurance. Related to this, Asia-Pacific policy makers need to develop financial instruments to mitigate the impact of natural catastrophes in the world's most disaster-prone region. To help implement the CAP's deliverable on microinsurance, the APFF Microinsurance Sub-Stream[28] convened an international group of microinsurance experts, practitioners and regulators to draft a proposed roadmap for expanding the coverage of microinsurance in the region, referred to henceforth as the Microinsurance Roadmap (MIR).

[28] This APFF Sub-Stream is led by the Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) - Regulatory Framework Promotion of Pro-poor Insurance Markets in Asia (RFPI Asia).

Table 1: The Process of Developing the APEC Microinsurance Roadmap

Activities/Date/Location	Collaborators	Results
1. APFF Workshop on Microinsurance Development Roadmap for Asia-Pacific Emerging Markets /16 March 2017 / Hanoi, Vietnam	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) - Regulatory Framework Promotion of Pro-poor Insurance Markets in Asia (RFPI Asia), Ministry of Finance -ISA Vietnam, ABAC	✓ Identified the issues that will be addressed by the MIR ✓ Defined the elements of MIR ✓ Created the interim MIR drafting group (DG)
2. Discussed the concept of MIR in a panel session in the Catastrophe Insurance and Risk Management Summit/23-24 May 2017/ Singapore	Organizer: Equip Global	✓ Raised awareness
3. Drafting the MIR and consultation calls with the DG/June-July 2017/ Various	GIZ RFPI Asia and the MIR DG"	✓ MIR was drafted. Comments collected in the consultation calls with the DG
4. Presented the concept of MIR during the MiN June Members Meeting/28 June 2017/Luxembourg	Microinsurance Network (MiN)	✓ Raised awareness ✓ Campaigned for volunteers to the MIR Drafting Group
5. MIR panel session in the ABAC Financial Inclusion Forum /11 July/ Hoi An, Vietnam	GIZ RFPI Asia, The Foundation for Development Cooperation (FDC), ABAC, Central Bank Vietnam	✓ Gathered inputs and comments to the draft MIR from 4 expert panellists and from the participants of the ABAC FI Forum ✓ Added new members to the DG ✓ Submitted the draft MIR to ABAC for inclusion in the 2017 APFF report to APEC FMs
6. **Coming soon** – APFF MIR Roundtable meeting / 7 Nov 2017/ Lima, Peru	GIZ RFPI Asia, Asociación Peruana de Empresas de Seguros (APESEG), Microinsurance Network (MiN), Munich Re Foundation, Superintendencia de Banca y Seguros (SBS), ABAC	✓ Will gather inputs and comments to the draft MIR from Latin America stakeholders

** The drafting group (DG) is composed of volunteer officials from Asian insurance regulators, regional insurance companies, international network of insurance regulators, global network of microinsurance stakeholders, national association of insurers, international foundation, international consulting/service company, and international development organizations.*

The MIR aims to address the following issues

1. Lack of responsive policies and proportionate regulations supportive of microinsurance;
2. Dearth of scalable business models that takes advantage of large aggregators and the use of fintech;
3. Need for sustainable financial literacy measures that will inform and educate key stakeholders on microinsurance; and
4. Inadequate public-private sector collaboration and poor inter-agency cooperation.

As such, the MIR identifies four key result areas or pillars that will guide APEC member economies in developing an inclusive insurance market. These are:

1. Establishment of policies and proportionate regulations for inclusive insurance and microinsurance;
2. Adoption and replication of scalable business models using fintech for inclusive insurance;
3. Establishment of inter-agency coordination and private-public sector coordination mechanism supportive of inclusive insurance; and
4. Adoption and implementation of financial literacy and consumer protection measures for insurance clients.

The MIR suggests priority action plans that maybe implemented in the short-term, medium-term or long-term depending on the level of enabling environment in the member economy. *See Appendix 2 for a full draft of the MIR.*

Under the current APEC chairmanship of Vietnam and in the upcoming APEC chairmanship of Papua New Guinea in 2018, the APFF wishes to issue the following Recommendations

1. Include the MIR in the 2018 agenda of the Finance Ministers Process and in the 2018 Meeting of Economic Leaders;
2. Collaborate with APFF in identifying stakeholders that would champion the adoption and implementation of MIR in their respective APEC member economies;
3. Mobilize public and private resources that could contribute to the implementation of MIR; and
4. Form oversight groups in each member economy that would steer and monitor the implementation of MIR.

Disaster risk financing and insurance

The Asia-Pacific continues to be the most disaster-prone region on the globe. The year 2016 saw severe earthquakes in Japan's Kyushu Island and New Zealand's South

Island, flooding in the Southern US and China, a large scale wildfire in Canada, and a winter storm in Australia. Their economic consequence has been enormous, largely due to growing concentration of population and economic activities in hazard-prone areas, and recovery from devastation may often take years. It not only slows down economic activities, but also has the potential negative impact on sovereign risk ratings. APEC Finance Ministers are aware of the situation and recognize the need to develop coordinated disaster risk management strategies and to improve their approach to Disaster Risk Financing and Insurance (DRFI) as a means to build resilience in the region.

Consequently, Asia-Pacific policy makers are setting their sights on developing financial instruments to help mitigate the impact of disasters *ex ante*. This complements ongoing efforts to improve disaster response and disaster risk management strategies. It was therefore not a coincidence that the APEC Finance Ministers selected DRFI as one of the priority issues in the CAP. The Ministers identified initiatives and expected deliverables, and how they should be carried out in terms of short, medium, and long-term objectives over the course of ten years. It is worthy of note that CAP recognizes the role of private sector players, and stresses the importance of public and private sectors working closely together. The three sets of deliverables were laid out as follows:

- Establish and promote private disaster insurance schemes (medium/long term).
- Deepen insurance penetration within their economies and develop regional risk sharing measures (long-term).
- Develop a roadmap and network of experts through the support of APFF for expanding the coverage of micro-insurance and disaster risk finance in member economies (medium term).

In response to the CAP's request to study the possibility of constructing a disaster risk data base, it was deemed necessary to start with framing the scope and granularity of what constitutes a database. In order to avoid overlapping or duplication of work with existing initiatives, this needs to be approached mindfully of the limited resources. Meanwhile, APFF continuously stays in contact with international institutions such as the Asian Development Bank (ADB), OECD, WBG, the Insurance Development Forum (IDF) and the Geneva Association to support policymaking efforts pertaining to DRFI.

APFF also collaborates with ASEAN Natural Disaster Research and Works Sharing (ANDREWS), a Working Committee of the ASEAN Insurance Council (AIC). APFF's DRFI expert was invited to the 2nd ASEAN Insurance Summit on 23 November 2016 in Yogyakarta, Indonesia, where DRFI was discussed intensively. It was agreed that the two communities work closely by sharing knowledge and experience with each other.

Under the APEC's 2016 Peruvian presidency, the subject of DRFI was highlighted in APFF's Dialogue with APEC Finance Ministers, which took place as part of the APEC Finance Ministers Meetings in October 2016. In its opening remarks, APFF called for enabling regulatory mechanisms to help private sector companies comfortably write natural disaster risks, by citing catastrophe reserving and risk-based capital systems as examples. Finance Ministers of Japan, Chile and New Zealand each shared their experience in how effectively their national disaster insurance scheme responded in the occasions of large scale natural disasters. The Ministers took note of the importance of designing an *ex-ante* disaster risk insurance system that meets the domestic needs, while putting in place an enabling regulatory system that facilitates private sector insurance companies write more natural disaster risks.

APFF has been encouraging each economy to strategize its financial risk management pertaining to disaster risks. The Peruvian Ministry of Economy and Finance demonstrated leadership in this regard by releasing a report entitled "Peru: A Comprehensive Strategy for Financial Protection Against Natural Disasters." The report lays out strategic lines of action which are specifically designed for Peru, and can be referred as a benchmark for other disaster-prone economies with a view to promote DRFI domestically.

In response to the high level of interest expressed by the Ministers, and building on its milestone, APFF continues to offer its views and expertise through continuous dialogues with officials involved in the APEC-FMP, along with interested stakeholders.

Among a number of potential engagement opportunities in the future, APFF plans to hold a multi-stakeholder dialogue at the World Bosai Forum in Sendai, Japan on 27 November, 2017. The forum is expected to attract government officials, academia and disaster risk practitioners from all over the world. With the accumulated knowledge on disaster risks, APEC and APFF have much to offer to enable a practical and in-depth debate on how to better mitigate financial concerns arising out of natural disasters.

APFF continues to abide by its recommendations as set forth in its 2015 & 2016 Progress Reports. While the APFF's previous recommendations on DRFI remains valid, the timeline is adjusted and reformatted as follows in alignment with CAP and the pace of its progress. Our focus remains with identifying which economies and risks should be prioritized in designing a DRFI scheme. To that end, APFF continues to make itself available for a constructive dialogue between public sector officials and private sector experts towards designing practical DRFI solutions.

CAP Deliverables	APFF Activities	Proposed Timeline		
		2017 (Vietnam)	2018 (PNG)	2019 (Chile)
1. Establish and promote private disaster insurance schemes	✓ Contribution to APEC DRFI seminars	● Presented private sector perspective (@APFF WS on Microinsurance 16 March, Hanoi, Vietnam)	● Continue as an annual effort	● Continue as an annual effort
	✓ Assist APEC in identifying economies and perils of priority	● Initiate discussions with APEC FM officials	● Identify economies and perils of priority*3	● Communicate with relevant officials towards implementation
2. Deepen insurance penetration within their economies and develop regional risk sharing measures	✓ Enhance the availability of risk exposure data (in collaboration with the World Bank)	● Initiate stock-taking on the availability of risk exposure data*1	● Complete stock-taking*4	● Study on risk pooling among APEC Economies
3. Develop a roadmap and network of experts	✓ Formalise an expert group	● Invite core expert members*2	● Broaden the geographical scope	● Continue efforts to expand the network
	✓ Contribute to the drafting of the roadmap	● Plan and organize a multi-stakeholder dialogue @World Bosai Forum, Sendai, Nov 2017	● Initiate the drafting process	● Complete the roadmap

*1 Design a template for stock-taking (ideally through a face-to-face meeting of the DRFI SS experts, to be held by year-end)
*2 APFF's DRFI Sub-stream has so far received support from OECD, the World Bank, the Geneva Association, ASEAN Natural Disaster Research and Works, Citi, Munich Re, Swiss Re and Tokio Marine
*3 To be worked out in conjunction with the 2nd deliverable "deepen insurance penetration" and its identification process of economies and perils of priority (ideally through a workshop-style meeting with the presence of finance ministry officials from the economies prone to natural disasters, to be held by first-half of 2018)
*4 Completing the template for stock-taking (ideally through a workshop-style meeting as indicated above, to be held by first-half of 2018.

DIALOGUE AND RESEARCH ON THE FUTURE OF FINANCIAL REGULATION

APFF continues to provide a platform for research and discussions on the present conditions and future directions of financial markets and regulations, which help authorities and industry deepen their knowledge of markets and anticipate emerging issues. This year, research and discussions were undertaken by various stakeholders under the leadership of the University of Melbourne Team through their Financial Regulation in Asia Project,[29] which seeks to examine, from a multi-disciplinary perspective, the regional architecture for financial regulation in Asia and, in particular, the various ways in which regional coordination and integration can be strengthened.

Following are high-level recommendations and conclusions of these discussions to date:

- The purpose or focus of coordination changes depending on the area concerned. One size does not fit all. In the case of shadow banking, for example, the focus is on information-sharing and monitoring; in the area of consumer financial dispute resolution, on the other hand, the focus is on promoting convergence and harmonization of best practice.
- There are benefits in utilizing and expanding the mandate of existing regional bodies for the purpose of achieving greater regional coordination; e.g. ASEAN+3 Macroeconomic Research Office (AMRO) in the area of shadow banking; SEACEN Research and Training Centre in the area of banking resolution; ASEAN Committee on Consumer Protection in the area of consumer financial dispute resolution.
- There is a need to adopt a flexible approach that takes into account different levels of development and allows different markets to progress at different rates (i.e. a multi-track approach). This is consistent with the ASEAN model of cooperation with its multi-track approach that allows more developed countries to progress towards regional integration at a faster rate while less developed countries implement reforms as and when they have the capacity. A multi-track approach needs to be supported by capacity-building and resourcing support. The post-GFC regulatory response has fostered regulatory divergence in important areas (e.g. Basel III) and, by adding substantial new burdens to regulated entities and regulators, has also increased the divergence in implementation across jurisdictions with large differences in capacity. ASEAN's flexible approach makes a virtue of necessity.
- The ASEAN Banking Integration Framework will face significant challenges in implementation due to the differential financial sector development across the region and differences in the nature of regulatory and institutional arrangements

[29] The team is composed of the following members: Professor Kevin Davis (Finance), Professor Andrew Walter (International Relations), Professor Andrew Mitchell (Law), Professor Ian Ramsay (Law) and Associate Professor Andrew Godwin (Law).

– and is something that warrants more study.

Areas examined to date include Basel compliance and international standards relating to bank supervision, the Asia Region Funds Passport scheme, shadow banking, bank resolution regimes, OTC derivatives market reforms, financial benchmarks, trade in services, consumer finance, and prudential provisions in international trade agreements. Working papers and journal articles have been published and are available on the project website: https://government.unimelb.edu.au/financial-regulation-in-asia.

Areas currently under examination include fintech (coordination and regulatory sandboxes), deposit insurance schemes, the changing politics of regulating systemically important banks, Asia's institutional architecture for financial regulation, bank resolution regimes, Islamic finance, convergence in finance law, cross-border insolvency, financial inclusion, supervision and enforcement under the IOSCO Multilateral Memoranda of Understanding (MMoU), methodologies for coordination and integration, and international commercial courts and coordination.

Another area where research and discussions are being undertaken in conjunction with the APFF is Islamic finance. The work program on Islamic Finance at Harvard University which is being conducted in collaboration with the Capital Cooperation Project Group continues to be focused on the policy mechanisms for capturing Islamic Capital for investment in and the development of long-term essential service projects such as infrastructure.

Recommendations being developed by the Capital Cooperation Project Group are concerned with promoting Islamic investors' interest in infrastructure and in infrastructure related enterprises and with characterizing and positioning infrastructure to comply with Islamic investors' goals and needs. These Recommendations will complement previous Recommendations made by the Capital Cooperation Project Group regarding Sharia compliant interpretations of infrastructure and of a real asset. The recommendations will reflect the import and meaning of making infrastructure investments in the APEC economies within the context both of Islamic finance and of the integration of Islamic capital with conventional capital.

A Harvard University paper, titled "Value and Values of Islamic Finance" which will be completed by late August 2017, will provide the basis for the recommendations currently being framed."

CONCLUSION

The foregoing report highlights the growing interest of APEC member economies to engage with the private sector in a wide variety of areas and confirms the importance of the CAP to the region's economic development. This year, the APFF made progress in starting new collaborative activities with various economies, such as in capital market development (with China and Thailand) and credit information and secured transactions (with Vietnam). The APFF also commenced work on two deliverables under the CAP – the roadmap for developing financial market infrastructure in the Asia-Pacific region and the roadmap for expanding the coverage of microinsurance, both of which are appended to this report.

Progress also continues to be made in the ongoing work on credit information and secured transactions work in the Philippines and Thailand, advancing a pilot project on cross-border sharing of credit information in the Mekong region, the development of a platform for public-private sector dialogue on fintech, support for the Asia Region Funds Passport, creating a platform for enabling Islamic financial institutions to expand cross-border investment in infrastructure, expanding the role of pension funds and insurance firms in infrastructure, and promoting a more active private sector participation in disaster risk financing and insurance.

To help advance the implementation of the CAP in coming years, this report recommends the following to the APEC Finance Ministers:

1. **Encourage relevant officials and regulators to collaborate with APFF's capacity building activities in:**
   - **promoting deep and liquid bond, repo and derivatives markets;**
   - **modernizing credit information, valuation, secured transactions and insolvency systems;**
   - **developing pilot programs for cross-border supply chain financing; and**
   - **expanding long-term investors' roles in infrastructure development.**

2. **Support APFF's efforts to develop a regional platform for public-private dialogue on harnessing fintech to create inclusive, sound and efficient financial systems.**

3. **Encourage senior finance officials to work with APFF in 2018 to finalize the roadmaps envisioned in the CAP for:**
   - **developing the region's financial market infrastructure;**
   - **expanding the coverage of microinsurance; and**
   - **promoting greater private sector participation in disaster risk financing and insurance.**

4. **Encourage more economies to host discussions on the Asia Region Funds Passport (ARFP) where APFF can convene experts from regulatory, industry, multilateral and academic institutions.**

5. **Encourage relevant authorities to collaborate with APFF in finalizing in 2018 a work program for the Islamic Infrastructure Investment Platform (I3P) to help expand cross-border investment by Islamic financial institutions in infrastructure.**

Asia-Pacific
Economic Cooperation

APEC Business Advisory Council

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2017 Progress Report to the APEC Finance Ministers

Appendix 1

DEVELOPING APEC'S FINANCIAL MARKET INFRASTRUCTURE: A ROADMAP

DEVELOPING APEC'S FINANCIAL MARKET INFRASTRUCTURE: A ROADMAP

Contents

FOREWORD

The Asia Pacific Financial Forum (APFF) is one of the parties assigned by the APEC Finance Ministers under the Cebu Action Plan (CAP[1]) to draft a roadmap for the development of the region's Financial Market Infrastructures (FMIs). This year, APFF hosted a series of conference calls and a symposium to initiate this process. These activities involved a large group of stakeholders, which included the ADB, IMF and World Bank, private sector firms and industry associations from across the region including Asia, North and South America and Russia, experts from academe and industry, and some regulators and officials.

The CAP incorporates initiatives that have been proposed by the private sector over many years. The Ministers gave the private sector the responsibility to take the lead in advancing them.

To fulfill this responsibility, ABAC created platforms for collaboration between the public and private sectors. There are three of these platforms, each populated by different sets of stakeholders but with overlaps. These are the Asia-Pacific Forum on Financial Inclusion, the Asia-Pacific Infrastructure Partnership or APIP, and the APFF. All of these are involved in advancing various parts of the CAP. The work of APFF on FMI is part of the initiatives under its Capital Market Development Work Stream.

The work on capital market development is focused on three important and interrelated objectives, which are the improvement of market depth and liquidity, the promotion of cross-border portfolio investment and reducing costs and risks.

While there are many issues to be addressed to reach these objectives, we decided to take a results-oriented approach. We identified a few initiatives that could be realistically progressed by the private and public sectors collaborating with each other within a reasonably short time frame and that would have significant impact on market development. These concrete initiatives are: first, the development of classic or title transfer repo markets where such market practice is not yet established; second, assisting jurisdictions in creating and improving the legal and documentation infrastructure required to support OTC derivatives markets including close-out netting arrangements, enforceability of collateral rights and implementation of mandatory margining for non-cleared OTC derivatives; and third, supporting the implementation and membership expansion of the Asia Region Funds Passport. The fourth, which we have initiated in 2016, is the drafting of a roadmap for FMI development in the APEC region.

This report summarizes the outcomes of the series of conference calls and the symposium held in Seoul, Korea on 25 April 2017, subsequent discussions with financial market experts through the collaborative drafting, as well as the interactive dialogue with regulators and officials at the joint session with the 25th ASEAN+3 Bond Market Forum (ABMF) held in Manila, Philippines on 4 July 2017.

[1] The CAP was launched by the APEC Finance Ministers to guide their work over the next 10 years, identifying specific initiatives and deliverables, providing timelines, and assigning tasks to stakeholders. The Plan has four pillars, corresponding to four priority areas identified by Ministers – financial integration, fiscal transparency, financial resilience and infrastructure.

Asia-Pacific Financial Forum
DEVELOPING APEC'S FINANCIAL MARKET INFRASTRUCTURE: A ROADMAP

Conference Report

EXECUTIVE SUMMARY

Financial Market Infrastructures[2] or FMIs are the pillars of financial market integrity. FMIs withstood the strains of extreme volatility brought about by the global financial crisis (GFC). Since then, the importance of ensuring their continued robustness has become a foremost concern of policy makers and regulators, as manifested in the adoption of the CPMI-IOSCO Principles for FMIs. In recent years, FMIs have also increasingly taken on new roles as the global regulatory agenda focused on promoting greater transparency of transactions and greater standardization of financial products, among others. FMIs continue to stand as a bulwark against market disruptions.

In 2015, the APEC Finance Ministers called for a roadmap to improve the region's FMIs. This included the creation of a regional securities investment ecosystem that can facilitate cross-border investment to deepen capital markets and increase economies of scale. This task was incorporated in the Cebu Action Plan, the Finance Ministers' multi-year blueprint for financial sector development in APEC. The Asia-Pacific Financial Forum (APFF), a platform for collaboration among the public and private sectors and multilateral and academic institutions to accelerate the development and integration of the region's financial markets and services launched by the Ministers in 2013, is supporting this effort. Using the APFF platform, this symposium was hosted by the Federation of Korean Industries (FKI) in Seoul, Korea on 25 April 2017. The following is a summary of its key outcomes.

FMIs serve to facilitate the efficient and cost-effective flow of investment across markets. They support financial market stability and integrity, and promote greater financial inclusion, fair and equitable competition and innovation. Historically, FMIs served as nodes that accumulated market, liquidity and counterparty risks to facilitate transparency and management. Without appropriate oversight they can also become a significant source of systemic risk, especially during times of market stress. Consequently, they came to be increasingly regulated[3].

Since the GFC of 2007/08, new complexities and costs have emerged that need to be better understood and better managed for markets to have higher levels of sustainability. For example, emerging capital markets can struggle with the tension between business case viability and the need for a Central Counterparty (CCP) for nascent derivatives markets to avoid punitive balance

[2] Traditional Financial Market Infrastructures (FMIs) encompass a variety of institutions and systems including payment systems that are systemically important, Central Securities Depositories (CSDs), Securities Settlement Systems (SSSs), Central Counterparties (CCPs) and Trade Repositories (TRs). FMIs are central to the clearing and settlement of transactions in the financial markets, the movement of money and securities, and centrally managing the counterparty risks around the world. Issues in Large Value Payment Systems (LVPS) are not included in this report since it could be discussed separately with the currency policy issues in the region.

[3] To help address the threat of systemic shocks and increase the resilience of FMI, CPSS-IOSCO in 2012, released a report entitled Principles for Financial Market Infrastructures (24 Principles). The report contained 24 Principles designed to ensure a more robust infrastructure for the global financial markets and allow the infrastructure to better withstand financial shocks. In the subsequent five years since the publication of the CPSS-IOSCO's first report, the global financial system is much stronger and FMI adoption across the global has dramatically increased.

sheet costs for banks operating domestically. On top of the new changes, overseas investors continue to face existing market access and repatriation documentation that need to be streamlined, while there are funds post-trade paper-intensive services that serve as a contrast to the electronic speed of investments. New cybersecurity concerns add to this complexity.

Today, economies must consider new issues and needs facing FMIs and financial markets. These include how to promote transparency through a standardized and common platform for trade reporting, how to improve coordinated monitoring of markets through facilitation of cross-border data flows, and how to maintain and broaden access to cross-border money transfer mechanisms providing the required transparency in an affordable and meaningful way. They also include issues such as the standardization of market practices, account structures, operational and processing models, as well as consistent tax treatment of domestic and cross-border transactions.

Regulatory clarity and private-public sector collaboration are key to realizing new value from untangling some of these complexities and to addressing the growing costs and fragmentation of markets after the GFC. They are also important for enhancing liquidity and depth, ensuring the smaller players' involvement, and lessening the cost of raising funds from international capital markets.

1. The Roles of Financial Market Infrastructures in the Region

The Symposium discussed the regulatory environment, covering five key areas and recommendations. These include (1) the need for clear regulatory goals; (2) private-public sector engagements to find optimal solutions to reach these goals; (3) approaches that incorporate considerations of the potential regulatory effects on emerging capital market and their growth; (4) expanding high quality collateral to include local currency assets for mitigating liquidity and market risks; and (5) evaluating the potential effects of interconnectedness among markets at different maturity stages across the region. These are highlighted as follows:

- The symposium participants underscored the importance of cooperation as a fundamental regulatory tool, whose intensity will be driven by the policy objectives under consideration. It is critical to better understand and to appropriately calibrate the extraterritorial implications of domestic regulations and their potential impact. This highlights the rationale for regional regulators to publicly set out a clear medium-term strategy and their regulatory expectations.

- Standardization should not only be considered in technical terms but also in terms of industry expectations, for example with respect to harmonization of documentation, issuance rules and enhancing transparency of securities and tax rules, including common disclosure language or procedures for cross-border investors. The panel encouraged wider regulatory collaboration, including the sharing of Asian economies' experiences in the ASEAN+3 Bond Market Forum (ABMF) under the Asian Bond Markets Initiative (ABMI) with other member economies outside the region.

- There is a need to monitor extraterritorial effects in the region of post-GFC rules being implemented by developed economies, and to consider ways to address their impact on smaller economies and the growth of their capital markets. Smaller jurisdictions need to better understand how they are affected by global policies, while collaborating in their appropriate implementation to minimize regulatory arbitrage. International bodies should also understand the challenges facing domestic regulators as they try to find the appropriate balance between global consistency and local capital market growth.

- Participants discussed the need to evaluate the requirements for High Quality Liquid Assets (HQLA) and whether local currency assets could be utilized as acceptable collaterals in cross-border trades by financial intermediaries and CCPs. In this regard, CSD-RTGS[4] Linkages under the Cross-Border Settlement Infrastructure Forum (CSIF) of the Asian Bond Markets Initiative (ABMI) can be considered as a leading example. Suggestions were made on a further need to discuss how regional financial integration and better hedging markets would further promote liquidity and enhance the eligibility of local currency assets.

- While regional initiatives include access programs and activities to achieve inter-operability of the markets, there could be a rise in systemic risk associated with greater interconnectedness, which could pose a threat especially to smaller economies. Adoption is best facilitated by better insights and knowledge. Hence, a recommendation was made to evaluate the potential effects of interconnectedness on markets at different stages of maturity across the region, possible implications to policy makers and regulators, and likely measures that can mitigate identified risks that are also efficient in terms of cost and implementation.

2. APEC Roadmap on Financial Market Infrastructures

The introduction of various new global and domestic regulatory requirements and their implementation over the past decade, coupled with the evolution of financial markets, has resulted in significantly heightened levels of post-trade operational running costs and complexities, on top of legacy issues. The symposium highlighted the significant drain on market participants' growth-oriented investments that could occur if these costs and complexities continue to accumulate. Participants discussed specific areas of capital markets where proper regulatory attention could help alleviate these operational and compliance complexities.

2-1. Securities Markets: Post-Trade Ecosystem

This panel brought together a holistic view – from representatives of FMIs, a market intermediary and a multilateral body – on the state of the securities post-trade ecosystem. Progress and challenges were highlighted and two recommendations were made. The key recommendations are as follows:

a. The public and private sectors should collaborate to assess and promote the regional standardization of account opening documents like KYC/AML and tax reporting that needs to be completed by securities investors, be they domestic or cross-border. Standardization can only have meaningful impact if industry-wide implementation is at the regional level.

b. Regulators should support (e.g., through clear guidelines) the use of third party

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[4] Real Time Gross Settlement

industry utilities to store, manage and facilitate access of relevant parties to such standardized documents ("documentary industry utilities"). Public and private sectors should collaborate to explore the feasibility of such documentary information reuse/portability at the regional level and discuss how these goals can be better achieved and in what time frame.

2-2. Non-Resident Accounts, Tax, Investor Identification and Transparency

This panel focused on "account structure" in the context of cross-border investments and covered various stages of intermediation. The account structure (omnibus or direct holding under the beneficial owner name), is often determined by macroprudential considerations related to management, cross-border tax, transparency, reporting and operational requirements. It concluded that while no change is needed to the way local participants operate in their market (which could be direct holding, omnibus or a mix of both), the omnibus account structure is the most conducive option for jurisdictions wishing to attract cross-border investment flows to their market. Ideally the omnibus account structure should be combined with the nominee concept legal structure to ensure optimal asset protection. The key recommendations are as follows:

a. Local markets should feel free to choose the account structure they consider appropriate, whether it be direct holding, omnibus or a mix of both. The omnibus account structure is the preferred option for attracting cross-border investment flows to the market. Both account structures can coexist. Ideally the omnibus account structure should be combined with the nominee concept legal structure.

b. Cross-border investments are facilitated where there is either no tax or a simple tax scheme (i.e., a withholding tax based on a Record Date principle[5]); where there is no capital gains tax based on a price difference or a tax calculated on a holding period (which is unmanageable on a cross-border basis); where tax is imposed at source rather than refunded (refunds are best limited to corrections post payment), where it involves a one-time certificate instead of requiring yearly certificates or a certificate per payment; and where local notarization of tax certificates or supporting documents are not required.

c. It is important to find the right balance between transparency and market efficiency. Responsible authorities should review whether legal frameworks support requests to report investors' information, and undertake legislative reforms if they do not. Securities regulators should introduce requirements for bond prospectuses to facilitate investors' information reporting requests.

2-3. Increasing Market Efficiency: Issues Specific to Repo/Lending

Liquid and well-functioning repo and securities lending markets are essential to the efficient allocation and movement of capital and collateral through the financial system. They also play a role in helping diversify risks among different types of market participants across economies.

[5] Record Date principle: Use of a date (instead of a holding period) to determine the eligible bond holders who will receive an interest payment or a distribution

The relatively diverse range of Asia-Pacific markets' growth stages gives rise to additional regional issues and challenges in developing consistent practices. Securities regulators and policy makers are encouraged to review local practices when adopting international standard documentation such as GMRA and GMSLA. Where these have not yet been adopted, regulators and policy makers should undertake initiatives to promote progress, including reflecting local practices in the standard contract document, e.g. in the form of an annex, through collaborative work with market practitioners and a wide variety of stakeholders including industry associations.

2-4. *Increasing Market Efficiency: Issues Specific to Derivatives*

Greater regulatory transparency in the OTC derivatives markets is a key public policy goal that was codified at the September 2009 Pittsburgh G20 summit. In order to help improve regulatory transparency, a number of critical milestones need to be met which includes: (a) a shared public commitment to global convergence on harmonized reporting requirements; (b) greater regulatory endorsement of data standards and formats already in use; (c) the removal of barriers to sharing information across trade repositories and borders; (d) increased availability of substituted compliance; (e) promotion of inter-operability and connectivity between trade repositories; and (f) the designation of leaders to drive the mechanism for global data aggregation

The active support and cooperation of a wide range of stakeholders – regulators, market participants and infrastructure providers – will be required.

2-5. *Fund Services*

More people today are investing for retirement income and can benefit from the diversity of funds offered by fund passport initiatives like the Asia Region Funds Passport. To facilitate these activities, managing industry costs is important. Automation is also required to bridge the "mismatch" between the high level of post-investment paper and inefficient spaghetti processes (unstructured processes where it is difficult to define pre- and post-conditions for activities) and the speed of electronic investments.

A regulator-supported funds back-office processing utility can help this key industry more efficiently support individuals' wealth management, pension accumulation and drawdown. In the latter cases, the reduction of unnecessary costs to preserve returns will be very important.

Industry utilities can facilitate these goals. They can take the form of a centralized digital network connecting fund industry participants through more effective electronic exchange of information instead of through email or other manual processes. In order to promote the growth of portfolio investments in the form of funds among the region, support for the activities of public-private platforms such as the Asia Fund Standardization Forum (AFSF) is needed.

3. Data Management and Technology

In addition to the discussions on FMIs, symposium participants also discussed developing issues in data management and technology in financial markets. This was done for the purpose of promoting a common understanding of the current situation and the priority issues that the public and private sectors should address.

3-1. Fintech

Advanced technology in finance, or fintech, is rapidly changing the shape of how financial services are delivered to clients as well as how these are managed and monitored by institutions. The APFF FMI Fintech Substream has focused its discussions on know-your-customer (KYC) rules, e-payments, and cybersecurity.

- Identity is a baseline for participation in the formal financial system. However classical forms of identity provisioning struggle to reach underserved populations, contain clear security vulnerabilities, and cannot be verified remotely. Digital IDs can be linked with electronic forms of know-your-customer (e-KYC) verification mechanisms. Therefore digital IDs and e-KYC initiatives being conducted outside the region need to be analyzed to document best practices that could be leveraged based on the review of such initiatives within the APEC region.

- Payments form the core of the financial services ecosystem. There are a multitude of players currently introducing solutions for electronic payments. These include governments, banks, card networks, mobile operators, and pure technology companies. Economies need to explore whether there are inter-operability concerns that exist in the APEC e-payments ecosystem and whether APFF can make recommendations on how to resolve those concerns.

- The digitization of financial services is coupled with the onset of new cyber-risks. The major vulnerability associated with fintech is the multitude of new actors it brings into the financial services ecosystem, the linkages created between these new actors, and in some cases their interaction with established financial institutions and systems. APEC economies are encouraged to engage in research and analysis of emerging cybersecurity solutions and to share those learnings with stakeholders.

3-2. Disruptive technologies / new FMI-like entities

"Disruptive" technologies such as distributed ledger technology, robo-advisors and artificial intelligence are giving rise to new business models that leverage better data management, faster access to data, machine learning and new paradigms represented by the decentralized nature of the blockchain. These new business models where new technologies intersect with financial services can create new potential risks and costs even as they create new value.

In this context, the panel urged FMIs and the private sector to continue experimenting and contributing to industry's awareness and knowledge to overcome the maturity challenge. Collaborative work with regulators can help bridge the gaps with the needs for new regulatory frameworks.

Over time, regulators, private sector and FMIs should also plan to collaborate across markets to agree on harmonized domestic legal frameworks supporting the implementation of such new technologies and ensure cross-border regulatory certainty.

Where appropriate, standardization at the technical and business data levels needs to be considered from the start to ensure domestic and cross-border inter-operability. Inter-operability will also need to be promoted with other parallel initiatives as well as with legacy systems and processes that will not disappear overnight. Leveraging existing reference data standards (Legal Entity Identifier, ISIN, etc.) and business standards such as ISO 20022, while also supporting collaborative open source initiatives such as the Hyperledger project, should be considered to avoid “reinventing the wheel”.

A greater challenge facing industry is recognizing when current standards become obsolete, and open minds should be adopted for new practices and requirements of future technologies and their applications. Meeting this challenge is critical to ensure that growth potentials are not inhibited as a result of ill-fitting legacy standards.

Authorities should also assess the interaction of financial regulation with other statutes, such as fiscal policy or data privacy provisions, and consider the overall impact to the industry. Authorities need to account for the industry’s capacity, i.e. available resources, to innovate and execute on those innovations.

Symposium participants identified the above perspectives and issues that need to be addressed to improve the region’s FMIs and financial markets, and to facilitate cross-border portfolio investments in the region. As post-GFC rules are implemented and new technologies rapidly introduced in the region’s financial markets, requirements are evolving. Regulations and conditions need to be adjusted in a timely manner to support continued growth and manage current and emerging risks. Most recommendations presented in this report are meant for consideration immediately or within the next three years, which provides a critical window of opportunity for the market to develop and benefit from a coordinated policy effort.

At the same time, participants also recognized the wide diversity of capital markets’ stages of development in APEC, which means that a one-size approach will not fit all.

The industry proposes these feedback and recommendations for consideration and endorsement by the APEC Finance Ministers Process.

Asia-Pacific Financial Forum

DEVELOPING APEC'S FINANCIAL MARKET INFRASTRUCTURE: A ROADMAP

Conference Report

I. INTRODUCTION

Over the past few years, various discussions have been undertaken to address the development of the region's financial market infrastructure (FMI). In 2015, the APEC Finance Ministers sought to give impetus to this effort by calling for a roadmap to improve the region's FMIs and create a regional securities investment ecosystem to facilitate cross-border investment in capital markets. This task was incorporated in the Cebu Action Plan, the Finance Ministers' multi-year blueprint for financial sector development in APEC. The Asia-Pacific Financial Forum (APFF), a platform for collaboration among the public and private sectors and multilateral and academic institutions to accelerate the development and integration of the region's financial markets and services launched by the Ministers in 2013, is supporting this effort.

The symposium was co-organized by ABAC through the APFF FMI Cross Border Practices and FMI Fintech sub-streams, and hosted by the Federation of Korean Industries at the FKI Conference Center in Seoul Korea on 25 April, 2017. Over sixty participants representing a wide spectrum of organizations in the region's public and private sectors as well as international institutions, FMIs and academic and research institutions attended the event.

Participants discussed the state and challenges of Asia-Pacific financial markets in the post-Global Financial Crisis (GFC) regulatory environment. The financial markets are becoming better connected with technology and there are many types of infrastructures that provide services to support connectivity. We can collectively call these FMIs, including various types of financial intermediaries and service providers. Historically, regulators have viewed payment, clearing and settlement infrastructures as nodes that accumulate various types of risks and so increasingly paid regulatory attention to them.

Most traditional FMIs serve to facilitate the efficient and cost-effective flow of investment across markets, support financial market stability and integrity, while promoting financial inclusion, fair and equitable competition and innovation. Historically, they arose to serve domestic markets, while financial intermediaries played the role of bridging the differences in regulations, market practices and tax issues to promote cross-border portfolio trade.

The GFC underlined the importance of transparency, risk mitigation and robust market infrastructures to deal with systemic risks arising from the potential default of one or several major market participants. However, this must also be viewed in the context of the continuing long period of ultra-low interest rates in developed markets that is slowing down growth in developing and emerging markets.

It is more important than ever to support economic growth while maintaining stability. This can be achieved through enhanced efficient functioning of markets, including the growth of cross-border portfolio investments and wider use of local currency assets as eligible financial collateral by FMIs and bilaterally by market participants. This also involves broader access to affordable and transparent cross-border money transfer mechanisms, and progressive use of innovative technologies.

Economies will need to consider new issues and needs facing FMIs and financial markets. These include how to promote transparency through a standardized and common platform for trade reporting and how to improve coordinated monitoring of markets through facilitation of cross-border data flows. They also include issues such as the standardization of market practices, account structures and operational and processing models, as well as consistent tax treatment of domestic and cross-border transactions.

They are key to addressing the rising costs of services and growing fragmentation of markets in the aftermath of the GFC, and to enhancing market liquidity and depth, enabling the involvement of all market players, and lessening the cost of raising funds from international capital markets. These call for translating into reality the Cebu Action Plan's objective of creating a roadmap for public-private sector collaboration in identifying and prioritizing issues to be addressed in developing the region's FMI.

The discussions in the Seoul symposium and the preparatory and post-event conference calls reflected broad support across economies, sectors and institutions on both sides of the Pacific for the further development of FMIs in the region. The messages have been discussed further with financial regulators, officials and public sector representatives who participated in the joint APFF session with the ASEAN+3 Bond Market Forum (ABMF) in Manila on 4 July 2017 and expressed broad support. This conference report describes the outcomes of these discussions, including the Roadmap for APEC FMIs.

II. ANALYSES AND RECOMMENDATIONS

1. The Roles of Financial Market Infrastructures in the Region

Financial Market Infrastructures (FMIs) are central to the clearing and settlement of transactions in the financial markets, the movement of money and securities, and centrally managing counterparty risks around the world. Traditional FMIs include payment systems that are systemically important, central securities depositories (CSDs), securities settlement systems, central counterparties (CCPs), and trade repositories (TRs).

FMIs strengthen the markets they serve and promote and enhance financial stability. However, without appropriate oversight they can also become a significant source of systemic risk, especially during times of market stress. To help address the threat of systemic shocks and increase the resilience of FMIs, the Committee on Payment and Settlement Systems (CPSS) and International Organization of Securities Commissions (IOSCO) in 2012, released a report entitled *Principles for Financial Market Infrastructures.*[6] The report contained 24 principles designed to ensure a more robust infrastructure for the global financial markets and allow the infrastructure to better withstand financial shocks. In the subsequent five years since its publication, the global financial system has demonstrated strength and the principles' adoption across the globe has dramatically increased.

[6] http://www.bis.org/cpmi/publ/d101a.pdf

Financial market participants require an open and competitive infrastructure environment which can deliver best-in-class, reliable and cost-effective services that produce lower risk, faster execution, and transparent data reporting. The question remains how these FMIs, together with financial intermediaries and fund service participants in the APEC region, can best deliver such services.

With different products covered, investment strategies employed and a wide variety and caliber of trading, clearing and settlement venues, the future of FMIs in the region remains uncertain. Clear consensus exists among market participants and policymakers on the critical importance of central clearing and increased need for transparency. However, a great deal more work remains to be done to achieve the overarching objectives and great promise of robust financial architecture that promotes balanced and sustainable growth in the region.

International collaboration and cooperation is a fundamental regulatory tool. Collaboration between policy makers and the industry to identify market/systemic weaknesses needs to be encouraged. It is also very important to appropriately calibrate the extraterritorial implications of domestic regulation, and its potential negative impact. Hence, a consultative approach, giving market participants and stakeholders ample time to respond to public consultations on rules and regulations to avoid cross-border conflicts and unintended consequences, is welcomed.

Relationships should leverage existing multilateral organizations, but in addition to – not as a replacement for – bilateral relationships. There should be a thorough understanding of the impact which regulatory changes and infrastructure implementation have on the efficiency of a market and acknowledgement that the cost of introducing inefficiencies will be avoided by participants, wherever possible, sometimes leading to unintended consequences (such as shifting operations away from the jurisdiction or having to compensate investors for the additional operational cost through increased yields of sovereign issues).

A good understanding of regulatory requirements and the readiness to adjust regulatory frameworks to suit each market are critical. The over-riding regulatory objective should be to foster stability and trust in financial markets, conducting, where appropriate, a cost-benefit analysis for each new regulation to assess whether it might harm market development or the economy. Using risk-based analysis for adoption of new regulation - how much risk is in the market vis-à-vis how much regulation is being created to address that risk - could be a useful tool to approach the issue.

FMIs have come under increasing scrutiny after the GFC, and much attention has been focused on their role in enhancing financial stability while maintaining the availability of funding channels to support economic growth. Even as regional initiatives to promote issuance and liquidity of local currency bonds are underway through standardization and harmonization, global regulatory initiatives could impact market participants in the region. Responsible authorities and private sectors together are encouraged to monitor such effects and review regulations and policy measures to address such issues, including a potential scarcity of High Quality Liquid Assets (HQLAs). In addition, the implications of an increase in interconnectedness among FMIs also need to be considered.

The GFC prompted the introduction of a new suite of regulations[7] in developed economies in

[7] One of the G20 regulatory initiatives recognizes the issue in lack of transparency in the OTC derivatives market. Hence the pillar of the initiative

North America, Europe and parts of Asia. Those regulations are influencing markets and market participants in developing and emerging markets by way of extraterritorial effects, even as regulators in these markets have been encouraged to introduce similar sets of regulations in their own markets. APEC economies need to understand the effects of mandatory margining of non-centrally cleared OTC derivatives and the challenges that arise with definitions of eligible collateral and different economies' rules. FMIs are adjusting to facilitate cross-border collateral transfers through linkages.

Questions arose from regulators and policy makers in smaller economies[8] as to whether such economies should be required to establish local CCPs which accept local currency assets as eligible collateral. Challenges include relatively low local currency trading volumes, leading to questions of how these CCPs could achieve economies of scale and netting efficiencies, and whether utilizing CCPs outside of their home economy would be more viable.

Participants observed that some economies outside of APEC have established their own CCPs to keep margin (collateral) onshore. Where volumes are sufficient to achieve economies of scale this has worked. In other places it has stimulated the development of offshore non-deliverable markets in response to high clearing fees. In its 2010 OTC Markets and Derivatives Trading in Emerging Markets Report, IOSCO noted that economies with smaller, less developed derivatives markets should consider mandatory OTC margining as an alternative to investing in small-scale onshore clearing infrastructure[9]. APEC economies have a breadth of different types of markets. While there has been no serious discussion about creating a regional CCP in APEC, as markets grow, such a CCP may be necessary. In this regard, regional discussion to share experiences is encouraged.

As not all OTC derivatives transactions are cleared by CCPs, there is also a role for financial intermediaries to manage risk bilaterally, as well as collateral. Policy makers need to understand the developments on the bilateral front. APEC economies need to identify the issues applicable to both the CCP and the bilateral clearing constructs, including segregated third party custodial accounts to manage counterparty risk. Nevertheless, stages of market development in APEC economies vary greatly, and each must consider the development of FMIs in line with the development stage of its market.

a) Standardization and harmonization

One of the key tools to bring efficiency to global markets is to espouse standardization wherever practicable. Standardization should not only be considered in technical terms, where it is perhaps more obvious (such as the utilization of ISO 20022 for messaging), but also in terms of industry expectations. For example, harmonizing issuance documents might help both issuers streamline multinational issues and increase investors' appetite to diversify through cross-border investments.

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consists of electronic capture of trades and reporting to a Trade Repository.

[8] Fundamental issues in this region would be what are the systemic issues and priorities, given that OTC derivatives markets may very small in some markets in the region.

[9] However it needs to be carefully examined that uncleared margin should only be promoted for jurisdictions that have good netting and collateral status. Holding margin for uncleared trades in a jurisdiction without effective netting and collateral is prohibitively expensive and works counter to the concept of holding collateral to offset credit risk – firms could end up holding gross collateral for the same trade in a jurisdiction in which they may not actually be able to get back their collateral.

CASE STUDY

Regional financial integration initiatives are showing how we can prevent fragmentation while maintaining rapid growth in respective local markets. For instance, the ASEAN+3 Multi-Currency Bond Issuance Framework (AMBIF), which is targeting institutional investors such as financial intermediaries, has encouraged the acceptance of English as the common disclosure language with templates, adherence to international accounting standards, and relaxation of regulations to incentivize issuers to utilize this platform to obtain finance from regional markets.

RECOMMENDATION 1A: Responsible authorities are encouraged to support the harmonization of issuance rules and enhancing transparency of securities and tax rules. Efforts should include targeting professional investors such as financial intermediaries to enable common disclosure language, procedures and investor protection rules. To promote this, relevant authorities are encouraged to collaborate with the ASEAN+3 Bond Market Forum (ABMF), which promotes AMBIF, to link professional markets in the region, and then apply the experience gained to other member economies.

Harmonization can be based on outcomes as well. For instance, collateral rules can be a powerful alternative to clearing mandates where they are impractical or inefficient. Harmonization can help drive broader usage of regional assets. For example, regional bonds could be used more broadly as collateral instead of US Treasuries which remain the preferred tool. In this regard, Central Securities Depository-Real Time Gross Settlement (CSD-RTGS) Linkages under the Cross-Border Settlement Infrastructure Forum (CSIF) of the Asian Bond Markets Initiative (ABMI) can be considered as a leading example. Such initiatives to promote regional issuances should also be supported by central and policy bank practices. They should, for example, assess the liquidity impact of their collateral practices.

b) Monitoring the effects of G20 regulatory initiatives

G20 regulatory initiatives post-GFC are affecting not only the developed economies in the world but also developing APEC economies[10]. For example, although promotion of central clearing is the policy objective of the non-centrally cleared derivatives mandatory margining regime, some APEC economies lack the economies of scale to establish their own CCPs, and local currency collateral may not be accepted as eligible collateral at international CCPs. This is a particular problem for jurisdictions whose currencies are not freely tradable or convertible.

The industry and regulators must acknowledge that in order to be efficient, infrastructures must have a combination of scale and competition on comparable services. In smaller markets such as those in the region, this might not be achievable and therefore it must be accepted that some infrastructure services might not be best offered onshore. It must be remembered that the purpose of promoting the use of infrastructure is not an end in itself, but rather as a risk mitigation tool[11].

[10] The effects of European regulations, such as MiFID II and MiFIR were discussed, as well as how US issues such as substituted compliance come into play for FMIs such as CCPs. However, there are additional issues on recognition of trading venues that may have downstream impacts on CCPs used by those venues.

[11] How each region interprets and implements the PFMI should be analyzed as well.

CASE STUDY

For example, forcing clearing of OTC derivatives or the use of listed derivatives for hedging transactions might force institutions to accept imperfect hedging, therefore shifting the risk from the financial markets into the real economy. Corporate end-users may be denied favorable hedge accounting treatment in such circumstances and choose not to hedge as a result.

Infrastructures such as CCPs not only require scale and significant capital, but also significant regulatory oversight – and implementing regulatory principles remains a challenge. For instance, it remains a challenge to finalize recovery and resolution plans for CCPs.

CASE STUDY

- Policy makers from some emerging APEC economies are considering whether they need to establish a local OTC derivatives CCP in their respective jurisdictions. This is because most local market participants are not able to post their local currency-denominated assets to major international derivatives CCPs, usually due to capital account restrictions. Some economies in APEC are G20 members and hence are asked by international regulatory organizations if and when they intend to introduce central clearing. However smaller economies may find it difficult to achieve economies of scale in such CCPs given the high costs of establishment, development and maintenance, as well reduced netting efficiencies in a small local currency market.
- Brazil might be a market which has the breadth and financial depth to provide all types of hedges to its local banks and corporates, such that they can compete. Domestic Brazilian CCPs are interlinked and interoperable, so the pricing and netting benefits accrue to users, who are then able to provide hedges at roughly the same price as an international CCP.

RECOMMENDATION 1B: Securities regulators and central banks are encouraged to monitor together with the region's market participants the extraterritorial effects of developed economies' rules and consider ways to address this, especially in smaller economies. Smaller jurisdictions are encouraged to carefully consider global policies and international best practices and their appropriateness for smaller markets, subject to their size and level of development. They should strive to achieve the outcomes that have been internationally agreed, while being very mindful of what implementation means for their jurisdiction. Implementation must also avoid creating further fragmentation. It should be noted that domestic CCPs may not be appropriate for all APEC markets, and that uncleared margin should only be promoted for jurisdictions that have good netting and collateral status.

c) Scarcity of HQLA / Expansion of local collateral eligibility requirements

Post-GFC regulations and bank prudential rules are forcing financial transactions to be further collateralized. Even if there was to be a tapering of this through quantitative easing or other measures were introduced to increase the stock of HQLAs available to the market[12], there could

[12] Potential rise of supply in HQLA from long-term investors including pension funds and insurance companies need to be further examined.

be still a scarcity of HQLA collateral to provide enough financing, including in developing markets.

Local currency collateral, including highly rated government bonds with very little credit risk, is often not commonly accepted in international / foreign markets due either to market custom or the internal guidelines of key market intermediaries, limiting the flow of collateral and liquidity in the bond markets. Barriers to cross-border collateral flow due to limited collateral eligibility requirements need to be addressed, as well as their impact on markets and liquidity and market participants.

RECOMMENDATION 1C: Responsible authorities are encouraged to collaborate with international organizations to convene workshops to better understand the issues to address the growing need for HQLA collateral in the region. Measures could include how local currency assets may be utilized as part of collateral accepted for cross-border trades between financial intermediaries and CCPs, how regional financial integration and better hedging markets would assist further liquidity, and identification of specific classes of securities where liquidity and eligibility could be expanded. This should be followed by advocacy efforts in jurisdictions where collateral eligibility could be expanded. In this regard, CSD-RTGS Linkages under CSIF of ABMI can be considered as a leading example.

d) Infrastructure inter-operability and interconnectedness

Market infrastructures, including central banks, should be encouraged to cooperate – in a similar manner to how central banks already link to each other to allow cross-border delivery versus payment (DvP) settlements.

CASE STUDY

To mitigate settlement risk, the Cross-border Settlement Infrastructure Forum (CSIF) is discussing to link central banks and CSDs to create cross-border DvP settlements. While it will consist of a network of bilateral linkages, standardization of technical components will mitigate the risk of becoming a complex network. Such initiatives are leading the way to utilize platforms for local bond markets across the region.

While regional initiatives include access programs and activities to increase inter-operability of markets, these may also give rise to an increase in systemic risk associated with more interconnected markets, which may pose a threat especially in smaller economies[13].

RECOMMENDATION 1D: Respective authorities are encouraged to promote inter-operability among FMIs and participants including financial intermediaries, and evaluate the effects of interconnectedness between markets and their potential impact, implications for policy makers and regulators, measures to mitigate risk while avoiding "risk-off" or hindering financial inclusion.

[13] Currently real-time payment systems are developing in many economies. The discussion of connecting such systems can be seen as an effort to reduce FX settlement risk related with the difference in time zone and conversion of local currencies into USD as intermediary even in a case of local currency vs local currency settlement. However, it is also necessary to note that the expansion of the network may create a larger systemic event. In this regard, CSIF is discussing common understanding among the members for cross-border business continuity plan and cybersecurity, which will be observed when establishing the CSD-RTGS Linkages among the CSIF members.

2. APEC Roadmap on Financial Market Infrastructures

2-1. Securities Markets: Post-Trade Ecosystem

The securities market post-trade ecosystem is a large one and for the purposes of the APFF FMI symposium, we have defined the securities market's post-trade ecosystem as including:

(1) Financial Market Infrastructures (FMIs), securities central counterparties (CCPs), central securities depositories (CSDs) and payments infrastructure needed for settlement,

(2) Securities intermediaries and messaging systems including custodian banks and broker-dealers; and

(3) Fund services participants, including centralized industry fund services platforms, transfer agencies and fund administrators.

The introduction of various new global and domestic regulatory requirements and their implementation over the past decade, coupled with the evolution of financial markets, has resulted in significantly heightened levels of post-trade operational running costs and complexities, on top of legacy issues.

The symposium highlighted the significant drain on market participants' growth-oriented investments that could occur if these costs and complexities continue to accumulate. Over time, unintended consequences could arise if the industry prioritizes scarce resources into certain areas and diverst attention away from others where market development can be inhibited. Unnecessary complexities and costs also act as invisible "behind the border" barriers to cross-border investment activities as well as financial market integration and the achievement of economies of scale.

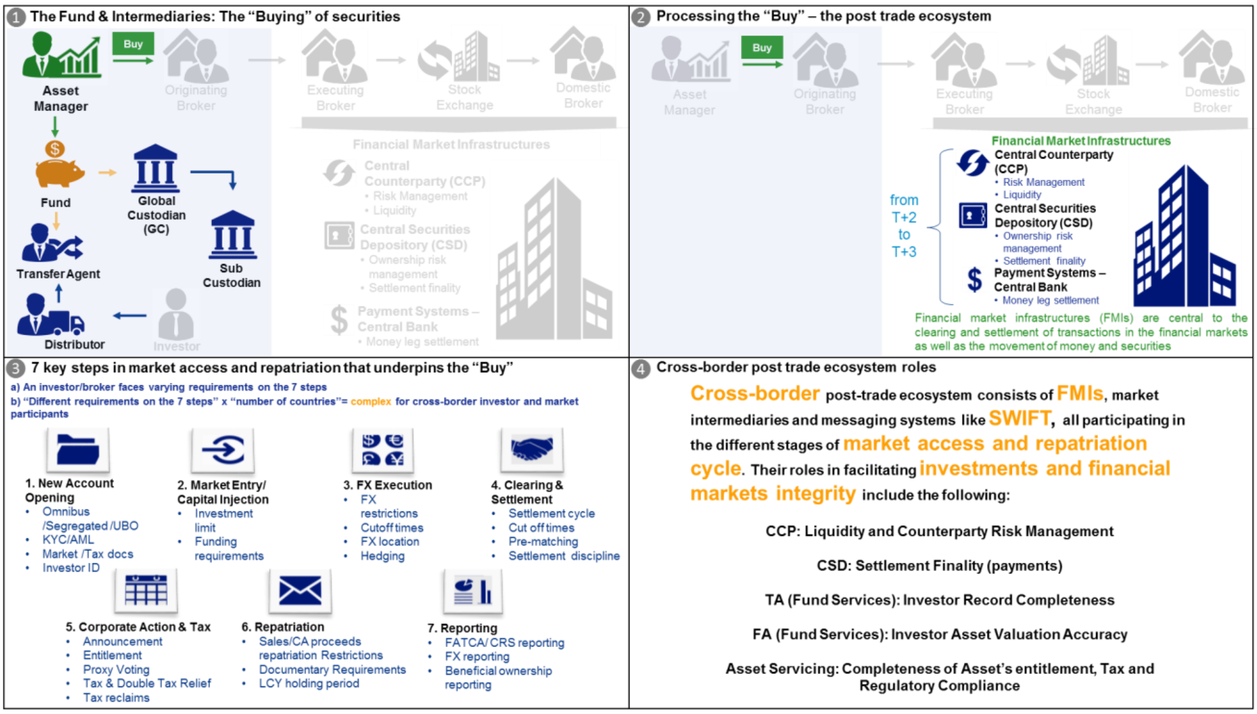
As a starting point, the potential to realize cost, compliance and regulatory reporting efficiency benefits can be found in the region's diverse set of market access and repatriation requirements and their inherent documentary compliance and regulatory reporting activities. (See for example the Account Opening stage of the illustrated market access and repatriation cycle below.) Greater standardization and the use of FMIs as industry utilities have been highlighted as two possible solutions. In the future, technology or "RegTech" may also play a role in achieving such efficiency goals. The panel voiced the need for private-public sector collaboration to establish a shared understanding of regulatory goals that can lead to better approaches towards compliance.

Every financial market will have a set of cross-border market entry and repatriation steps that underpin cross-border investments. The efficiency in fulfilling these steps counts toward the market's overall cost, operational complexity level and risk levels, which are of concern to all participants.

This set of cross-border market entry and repatriation steps generally consists of the following:

i. New Account Opening
ii. Market Entry and Capital injection
iii. FX Execution and Hedging
iv. Clearing and Settlement
v. Asset Servicing or Corporate Actions and Tax
vi. Repatriation
vii. Reporting

The following illustration provides a view of the ecosystem.



Source: Deutsche Bank

A cross-border market participant faces the costs and complexities that are amplified by the actual number of activities, the frequency and extent of changes that affect these activities and the number of markets that this cross-border participant is vested in.

Ideally, there needs to be a review of the related post-trade documentary and reporting regulatory requirements to determine which legacy requirements may be retired and which areas can be streamlined or, in certain cases, automated using advance technology.

Therefore, two recommendations related to cross-border securities post-trade ecosystem were made.

RECOMMENDATION 2-1:

a) **The public and private sectors should collaborate to assess and promote the regional standardization of account opening documents like KYC/AML and tax reporting that needs to be completed by securities investors, be they domestic or cross-border. Standardization can only have meaningful impact if industry-wide implementation is at the regional level.**

b) **Regulators should support (e.g., through clear guidelines) the use of third party industry utilities to store, manage and facilitate access of relevant parties to such standardized documents ("documentary industry utilities"). Public and private sectors should collaborate to explore the feasibility of such documentary information reuse/portability at the regional level and discuss how these goals can be better achieved and in what time frame.**

A sequencing of the recommendations would be beneficial to build on each step of understanding and momentum. The recommendations here are for the cross-border securities post-trade ecosystem. They can be related to some of the recommendations by the Panel on Non-Resident Accounts, Tax, Investor Identification and Transparency; and the Panel on Fund Services which is similarly focused on increasing automation to reduce complexity and to support cross-border fund activities.

2-2. Non-Resident Accounts, Tax, Investor Identification and Transparency

Account structure, tax, investor identification and transparency are influenced by each market's development history and level of maturity. There is no global consensus around these three issues, but they are discussed around the world due to their importance for markets' liquidity and stability. These two elements (liquidity and stability) can be used (among others) as measurable benchmarks to assess the efficiency of a particular market. While harmonization is a great ambition, it is not an absolute must as any barrier to cross-border flows can be solved unilaterally by the market where such a barrier exists.

To achieve harmonization while leaving each market to manage its own priorities at its own pace, safely and cost-effectively, it is recommended that the responsible authorities review whether legal/tax frameworks support international rules and best practices and undertake reforms if they do not. Indeed, any domestic investor becomes an international investor as soon as he invests outside of his home market.

Jurisdictional authorities should clearly articulate their statutory objectives: asset protection, tax collection and market surveillance prior to engaging in market reforms touching any of these three dimensions. This will allow fair assessment of the assets by foreign investors - which is particularly relevant for some markets in the region.

a) Account structure

Three dimensions must be considered when looking at the optimal account structure for a market: asset protection, cost and operational efficiency**.** It is also important to keep in mind that multiple account structures can co-exist in the same market for different asset classes and even for the same asset class. Each structure offers different advantages and has limitations. On a purely domestic basis, any account structure can be adopted. On a cross-border basis, however, additional considerations are required. The objective is to strike the right balance between transparency and operational efficiency knowing that market needs can evolve over time together with the market's maturity level.

The account structure supports the identification of legal ownership and asset protection attached to securities in case of insolvency of a counterparty, an intermediary or an infrastructure. It is also an important component of the custody chain which influences market participation, risk mitigation and settlement efficiency. This acquires special importance on a cross-border basis.

On a cross-border basis, empirical evidences show that the omnibus account structure combined with a nominee concept legal structure is the most effective from an operational viewpoint and is also the preferred method of international investors to enter a market. Indeed, opening direct accounts at the level of the CSD prevents intermediaries from isolating the investors from local complexities.

CASE STUDY

- When reforms are introduced, they must be reviewed to ensure that they are meeting the intended objectives. For instance, an APEC economy has recently introduced the ability to bulk orders. While this is a positive development, it does not fundamentally meet the need to have a 'nominee' or 'omnibus' account structure.
- Equities are traded on an exchange with a high concentration on the main liquidity pool. Fixed-income is mostly traded over the counter, and trading takes place on a decentralized basis, hence the custody chain is also decentralized. Korea has been re-introducing the omnibus account for equities as of 6 March 2017. China adopted the omnibus for Stock Connect and for Bond Connect.

It is important as well that fixed income assets do not grant ownership rights, which has significant policy implications in terms of the economy's interest and tax purposes. When information and transparency are required with regard to ownership, disclosure regimes should be preferred over segregated account structures, and authorities should be aware of the difficulty of obtaining qualitative data compared to quantitative data. Quantitative data can be in most instances used for policy and monitoring purposes, and the incremental value of the qualitative data for these purposes often does not justify the cost of systematic collection.

In the context of CCPs, regulators have been looking at the ideal account structure to ensure portability. However, it is best to leave the choice to the asset owner.

RECOMMENDATION 2-2A: Local markets should feel free to choose the account structure they consider appropriate, whether it be direct holding, omnibus or a mix of both. The omnibus account structure is the preferred option for attracting cross-border investment flows to the market. Both account structures can coexist. Ideally, the omnibus account structure should be combined with the nominee concept legal structure.

In the spirit of reciprocity, jurisdictions should strive to harmonize fiscal treatment across asset classes. In fiscal matters, simplification should be the driving principle.

b) Tax

Authorities are encouraged to consider the comprehensive statutory framework, and crucially this includes tax implications. While most mature markets do not levy tax on fixed income instruments, it remains each government's decision to levy tax or not but it should ideally be considered (1) from an economic perspective (e.g., whether the tax revenues can be offset by an increase of yield) and (2) from an operational perspective (e.g., whether the tax computation and collection processes are operationally efficient or whether they can negatively affect the liquidity of the instruments).

While the economic relevance of the tax can be debated between the tax authorities and the issuers (corporate and debt management office), operational efficiency is a lower hanging fruit to catch. Indeed, investors can request a yield premium to offset an excessive tax rate but will likely not invest or limit their activity should the operational complexity be too high.

While a no-tax regime is the easiest model under which to operate, should there be tax levied on fixed-income instruments, it is important to consider its extra complexity under a cross-border environment. Typically, tax requiring computation based on price differences (certain capital gains taxes or value-added taxes) or holding period are the most complex to operate on a cross-border basis. Processes requiring local notarization, original documents, and the use of a local agent should be avoided as they bear a heavy cost and add complexity.

CASE STUDY

- A Financial Transaction Tax (FTT) implemented in Scandinavia was reversed when capital market liquidity dried up completely. The new FTT being discussed in Europe is facing many hurdles and could pose a threat to collateral management-related transactions, which are a major pillar of liquidity.
- Japan changed its tax scheme to eliminate "clean and dirty JGBs" and gaining from benefits of merging the two liquidity pools.
- China recently confirmed that for China Interbank Bond Market (CIBM) there would be no capital gains tax and no tax at all for government and municipal bonds.
- Chinese Taipei simplified the tax scheme for Formosa Bonds in order to attract foreign investors.
- Several APEC economies' markets suffer because of the complexity of their tax regimes.

The withholding tax process can be optimized by preferring a "tax at source" principle with a refund process to support corrections after the payment date. The second best option is a "quick tax refund" process followed by a "standard refund". The collection of tax certificates to define the tax rate of the investor can also be optimized by preferring a "perpetual" certificate valid until a change occurs. The second best option is a recurrent certificate (every "x" years). The least preferred is a certificate required for each payment. The collection of certificates can be greatly facilitated by the intermediaries in the custody chain so it is advisable to leverage them.

A frequent misgiving is that financial institutions, especially foreign ones, are unwilling to pay taxes. In reality, firms seek to have a tax regime that does not impose a significant operational burden and that is predictable enough to permit accurate pricing of the assets.

An ideal tax regime will unlikely be found. However, even imperfect regimes can yield the expected level of income. Simple regimes can improve fiscal compliance. On the contrary, complex regimes will increase the operational cost of servicing capital market assets. This increased cost is incorporated in the asset valuation, and therefore will increase the interest demanded by investors on domestic issues including sovereign ones. As a result, any marginal tax revenue benefit could be erased by the higher yield.

The impact of tax policies on capital market policies must be also well understood. For example, the focus on beneficial ownership in an APEC economy is driven by the wish to broaden the tax base. However, this has a significant impact on the efficiency of trading. Authorities are encouraged to consider other implementation options provided there is no overwhelming fiscal leakage.

Evidence suggests that beneficial ownership shifts have not been used for tax avoidance. Even under the current regime where double taxation agreements (DTAs) vary and investors might benefit from taking advantage of specific agreements by shifting designated owners just before the record date, there is little indication that they are in fact doing so.

If exemptions are withdrawn, data used for assessment should make use of the existing data pools, such as the one collected under the OECD Common Reporting Standards.

In terms of tax principles, it is suggested that authorities avoid transactional taxes, and prefer the record date principle over holding period calculation methods.

Generally, taxation should be based on operations based in the jurisdiction. Cross-border capital investments are not actual operations, and should therefore not be equated to income tax. Removing what is effectively a transaction tax is not a harmful tax practice. It does not result in base erosion and profit shifting.

RECOMMENDATION 2-2B: Cross-border investments are facilitated where there is either no tax or a simple tax scheme (i.e.: a withholding tax based on a Record Date principle); where there is no capital gains tax based on a price difference or a tax calculated on a holding period (which is unmanageable on a cross-border basis); where tax is imposed at source rather than refunded (refunds are best limited to corrections post payment); where it involves a one-time certificate instead of requiring yearly certificates or a certificate per payment; and where local notarization of tax certificates or supporting documents are not required.

c) Investor Identification and Transparency

There are multiple reasons why transparency may be desired by issuers, investors, tax authorities and/or regulators. Such reasons can include statistical purposes, price discovery, Know Your Customer (KYC), Anti-Money Laundering (AML), quotas, tax and market surveillance, among others.

Different asset classes (equities, fixed income, investment funds) are traded differently and bear different risks (i.e., equities give an ownership right over a company while bonds only give a mere right to an interest without ownership). Hence, different transparency levels may be relevant and desired for each asset class. Not all instruments are equal, and thus should be treated differently.

Transparency can be achieved through multiple means: regulators' bilateral communication, segregation of accounts at CSD level, use of a unique ID at trading level, trade repository or reporting. Again, each approach has different merits and some are more suited to certain asset classes or for a certain purpose, they can also be combined.

RECOMMENDATION 2-2C: It is important to find the right balance between transparency and market efficiency. Responsible authorities should review whether legal frameworks support requests to report investors' information, and undertake legislative reforms if they do not. Securities regulators and issuers willing to collect investors' information should introduce requirements for bond prospectuses to facilitate such requests. Upon such review, following perspectives are particularly important: (1) precise definition of the reason for the transparency to ensure the solution addresses the needs and minimizes operational frictions for all involved parties; (2) ensuring enforceability of investors' information collection in the law to avoid conflicting regulations between the jurisdiction of issuance and the investors' jurisdiction of residence; and (3)avoiding the request of data which cannot be automatically retrieved from intermediaries' systems or which require interpretation.

2-3. Increasing Market Efficiency: Issues Specific to Repo/Lending

Liquid and well-functioning repo and securities lending markets are essential to the efficient allocation and movement of capital and collateral through the financial system. They also help diversify risks among different types of market participants across economies. Many of the issues facing Asia-Pacific repo and securities lending markets are common to international markets. However, the relatively fragmented nature of Asia-Pacific markets, as well as the wide variation in levels of development of domestic markets, give rise to additional regional issues and challenges in developing consistent practices.

Hence, responsible authorities are encouraged to review and promote international best practices, promote adoption of standard documentation, review current policies and practices, and discuss expansion of local collateral eligibility requirements to further promote movement of capital and collateral while ensuring risk mitigation.

Repo/lending markets bring to securities markets significant benefits: they allow cost reduction, improve risk management, and bring liquidity. Financial markets and public authorities are encouraged to understand the benefits of short-selling. For example, it allows very long term investors to maintain their long positions while controlling risk, and hence influences heavily the appetite for investing in the market.

Market participants have identified several challenges with respect to the repo and securities lending markets in the Asia-Pacific. Policy at the domestic, regional, and international levels (such as monetary policy, capital account restrictions, or international prudential regulation) can affect the availability and liquidity of collateral, especially in the cross-border markets. Collateral eligibility requirements, including those for local currency collateral can affect liquidity in the international markets as well. Short-selling rules and disclosure regimes can also impact markets,in both positive and negative ways. Finally, collateral and inventory optimization is a major concern for direct market participants, especially those with a need to dynamically manage a range of types of collateral across markets and entities.

Fortunately, both policymakers and market participants continue to pursue various initiatives to further develop and improve the market. These include continued promulgation and promotion of international best practices, formulation of codes of conduct, adoption of international documentation such as the Global Master Repurchase Agreement (GMRA) and Global Master Securities Lending Agreement (GMSLA) to provide better transparency to regulators in the region.

a) Regulatory transparency

Regulatory uncertainty increases market risk and legal risk, which makes the relevant markets less attractive to investors. It is therefore important for regulators to clearly articulate their regulatory intent, and be consistent in its implementation. While there is certainly benefit in learning from regulatory implementation in other jurisdictions, if there is an intention to reform certain markets this needs to occur before global capital market reforms are concluded. Once these are completed, there will be significant resistance by financial institutions for implementing changes, and therefore act as an obstacle to foreign investment.

It is important that authorities ensure that the reforms they introduce are appropriate for the realities of their market. For example, currently only the very largest markets in APEC are likely to have the scale to justify the global standards on FMIs[14].In addition, it should be noted that some reforms, while intended to apply to all participants, may work for onshore (local) participants but may not always work for offshore participants.

RECOMMENDATION 2-3A: Both responsible authorities and market participants are encouraged to continue to pursue various initiatives, including promulgation and promotion of international best practices and formulation of codes of conduct, to further develop and improve the market, by ensuring very clear principles on regulatory expectations on capital raising and investment.

b) Adoption of standard documentation

Repo and securities lending market fragmentation is exacerbated by local documentation requirements and standards. In addition, the standard local documentation often does not contain adequate operational details or credit protections for international participants. At the same time, industry acknowledges that some economies may have reasons to have some locality in their standard contract document.

RECOMMENDATION 2-3B: Securities regulators and policy makers are encouraged to review the local practices when adopting international standard documentation such as the GMRA and GMSLA. Where these have not yet been adopted, regulators and policy makers should undertake initiatives to promote progress, including reflecting local practices in the standard contract document, e.g., in the form of an annex, through collaborative work with market practitioners and a wide variety of stakeholders including industry associations.

c) Tax and accounting

It is important to understand the implications of having manual processes, or of requiring people to be based on the ground. Such manual processes, however, may be a barrier even for the local market. For example, complexity and uncertainty of tax regimes can be an obstacle, and in some instances its application mechanism may prevent market participation and with it revenue generation.

CASE STUDY

- APFF has produced a repo/lending guide which explores in depth the value and the mechanisms of repo markets including very complex technical matters that are critical to the functioning of markets.
- ABMF has developed Bond Market Guide and have access to tax authorities via finance ministries.

RECOMMENDATION 2-3C: Responsible authorities are encouraged to support regular dialogues with industry representatives through public-private platforms including APFF, the Pan Asia Securities Lending Association (PASLA), International Capital Market Association (ICMA), the Asia Securities Industry & Financial Markets Association (ASIFMA), and ABMF to review whether any current policies and practices could act as barriers to the development of the repo and securities lending markets, and undertake reforms to address any barriers identified.

[14] Even though, less developed markets are affected by the changes in the global markets including Basel rules (e.g. Leverage ratio, Liquidity Coverage Ratio, and Net Stable Funding Ratio), and electrification of trading practices (e.g. Automated Request for Quote).

2-4. Increasing Market Efficiency: Issues Specific to Derivatives

Greater regulatory transparency in the OTC derivatives markets is a key public policy goal that was codified at the September 2009 Pittsburgh G20 summit. Since then, much work has been undertaken to achieve this goal. Nevertheless, major challenges remain in achieving the goal of improving regulatory transparency in a meaningful way. These include:

- different, costly, duplicative, conflicting and non-standardized reporting requirements across jurisdictions;
- some data requirements are not clearly defined;
- availability of 'substituted compliance' for reporting is limited, adding to duplication;
- standardized reporting formats have not been adopted quickly or broadly enough;
- a lack of agreement as to how some data reporting requirements should be standardized across jurisdictions;
- limited regulatory endorsement of standards already in use;
- some reporting regimes are 'closed markets,' meaning they have their own trade repositories which do not leverage international standards and mechanisms;
- existence of legal barriers to sharing data and information, both within and across borders;
- trade repositories have the unenviable task of collecting and standardizing data from multiple sources for multiple jurisdictions, and have their own unique data architectures, formats and methods of sharing information;
- no facilitator or mechanism to aggregate data from different trade repositories globally; and
- lack of commitment among stakeholders in the process to drive and achieve consensus in these areas.

As a result of these obstacles, regulators continue to lack a true picture of risk in individual jurisdictions because of incomplete and inconsistent trade data. On a global level, this means that efforts to aggregate data (and risk exposures) are not likely to yield meaningful results anytime soon.

Fortunately, now that major jurisdictions have largely implemented their reporting regimes, domestic regulators are increasingly turning their minds to cross-border efforts to achieve regulatory consistency as much as possible. While these issues have solutions, it will require the active support and cooperation of a range of global stakeholders – regulators, market participants and infrastructure providers.

The Roadmap seeks to enable data to be aggregated across jurisdictions, in order for a global data set to be realized for what is a global market in nature. **In order to achieve this goal, a number of critical milestones need to be met,** including: (a) a shared public commitment to global convergence on harmonized reporting requirements; (b) greater regulatory endorsement of data standards and formats already in use; (c) the removal of barriers to sharing information across trade repositories and borders; (d) increased availability of substituted compliance; (e) promotion of inter-operability and connectivity between trade repositories; and (f) the designation of leaders to drive the mechanism for global data aggregation.

RECOMMENDATIONS 2-4:

a) ***Shared, public commitment to global convergence on harmonized reporting requirements.*** **Securities regulators are encouraged to review whether their reporting requirements are harmonized and are consistent within and across**

jurisdictions, and to undertake regulatory reforms if they are not.

b) ***Greater regulatory endorsement of data standards and formats already in use*. Regulators are encouraged to embrace standards for derivatives reporting, and those that have not yet deployed their rules should avoid introducing unique requirements.**
   i) **Requirements should be as precise and prescriptive as possible, which will avoid ambiguity in achieving compliance.**
   ii) **There should be an effort to perform a robust cost-benefit analysis before requiring a reporting or disclosure regime.**
   iii) **It is also important to espouse to the market the additional benefits beyond merely satisfying compliance obligations when implementing a reporting regime. Additional benefits can accrue, such as being able to enhance the transparency of pricing, or being able to utilize data for internal modeling, either for counterparty or risk or trading strategy purposes. Hence, it is important to utilize and/or optimize the current reporting structure rather than requiring additional duplicative reporting standards and formats.**

c) ***The removal of barriers to sharing information across trade repositories and borders*. Regulators are encouraged to review whether current regulations hinder sharing information across borders, and undertake reforms if they do.**

d) ***Increased availability of substituted compliance*. Regulators are strongly encouraged to defer to each other's regulatory regimes where their intended outcomes are consistent. They should do this by adopting equivalence decisions, which allow a multi-jurisdictional reporting obligation for a transaction to be discharged once, in a jurisdiction of the reporting entity's choice. Regulators with a mandate to access the data for a transaction should obtain that information from that single report.**

e) ***Promotion of inter-operability and connectivity between trade repositories*. Regulators are encouraged to review the level of inter-operability between trade repositories and promote and incentivize the sharing of data.**

f) ***Greater cross-border regulatory focus on global aggregation mechanisms*. Regulators are encouraged to leverage cooperation with other authorities to share lessons learnt, as well as share data by designating jurisdictional, regional and global leaders to spearhead the aggregation effort. Barriers to sharing data and information between regulators should be removed.**

These objectives cannot be achieved solely at the individual jurisdiction level, but require global collaboration, coordination and engagement. The active support and cooperation of a range of stakeholders – regulators, market participants and infrastructure providers – is vitally important to making this a reality. Only through implementing the above measures can the goal of transparency truly be achieved.

2-5. Fund Services

a) Regulatory transparency

More people today are investing for retirement income and can benefit from the diversity of funds offered by fund passport initiatives like the Asia Region Funds Passport (ARFP). To facilitate these activities, managing industry costs is important. Those jurisdictions currently relying on email or other manual processes could consider introducing a regulator-supported funds back-office processing utility. This can take the form of a centralized digital network that connects the fund industry's participants for more effective electronic exchange of information. It can improve industry cost efficiency and reduce operational risks to encourage greater participation of asset managers and investors.

For cross-border fund investments, interoperability among such utilities can facilitate the industry's more effective compliance on reporting and investor transparency regulatory needs. Additionally, barriers to fund passport participation can be lowered through the reduction of administrative, operational and regulatory reporting complexities, and thus, contribute to the investment fund industry's development.

CASE STUDY

Following are existing regulatory arrangements for funds passport regimes in the region:

- *ASEAN Collective Investment Scheme (CIS)* framework is an initiative undertaken by ASEAN Capital Market Forum. Under ASEAN CIS framework, fund managers can offer CIS constituted authorized in their home jurisdiction directly to retail investors in the host jurisdiction under a streamlined authorization process (excerpted MAS explanation in 2014).
- *China-Hong Kong Mutual Recognition of Funds (MRF)* is a program agreed by China Securities Regulatory Commission and Hong Kong Securities and Futures Commission in 2015 that allows Chinese and Hong Kong asset managers to distribute their funds in each other's jurisdiction.
- *Asia Region Funds Passport (ARFP)* is an initiative that will, once implemented, provide a multilaterally agreed framework to facilitate the cross border marketing of managed funds across participating economies in the Asia region.

RECOMMENDATION 2-5A: Based on the ASEAN CIS experience, securities regulators are encouraged to set highly standardized registration processes for funds between passporting economies, in order to ensure that benefits of streamlined regulations are felt by the market. The case of China-HK MRF shows that attractiveness of the product is key in promoting passport scheme, and that large-scale funding for pilot funds can receive a lot of attention from the industry.

b) Standardization and harmonization

Standardization of business processes will be essential for the automation and efficiency of fund services. Fund services are especially highlighted for cross-border trading, because fund operators, distributors, registrars, administrators, and custodians located in different jurisdictions have to seamlessly connect their lines of services without compromising the product's attractiveness.

Amid the call to better understand different fund services in the region and develop recommendations for standardized practices, a consultative body of CSDs was established under the name of Asia Fund Standardization Forum (AFSF) in 2015. However, standardization activities will only have meaningful impact if industry-wide implementation is encouraged on a regional scale, as failure to do so will result in the development of multiple standards that are not harmonized.

CASE STUDY

The Asia Fund Standardization Forum (AFSF) is a consultative body of domestic central securities depositories in Asia, aiming to promote discussion on ways to standardize back-office processing for funds traded across borders. Established in November 2015 following the proposal from the Korea Securities Depository (KSD), the AFSF members comprise 14 CSDs from 13 economies and 6 global fund service providers. Under the name of AFSF Knowledge Sharing Workshop, the first physical meeting was held in June 2016 in Seoul. The next workshop is planned for September 2017 to be held in Mumbai. The AFSF activities were introduced in the 2016-2017 Annual Report published by the ARFP Joint Committee.

RECOMMENDATION 2-5B: **Responsible authorities are encouraged to support the activities of AFSF. Harmonization can be achieved in many parts of the business process (e.g., usage of same fund codes or message formats, required information for fund products by regulators or market players, account opening forms, KYC process). Standardization in the terminology used between fund markets will be essential for market players to communicate effectively for cross-border transactions.**

c) Infrastructure inter-operability

Fund services are an integral part of the investment fund business as an infrastructure that supports back-office processing and execution of order. Their service scope encompasses account ownership management, order routing, trade confirmation, corporate action, fund balance record-keeping, and settlement. The importance of fund services is accentuated when fund markets mature, as the plateauing of revenue growth from asset management businesses encourage companies to turn their attention to margin protection, efficiency, and speed. Although fund services conventionally relied on manual intervention, they are moving towards automation and straight-through-processing (STP), which can promote economies of scale, scalability and inter-operability.

Despite the need to integrate fund services for cross-border flows, efforts are often hindered by vastly disparate practices, absence of a market standard and prevalence of proprietary systems found across the region. In this regard, an interesting solution surfacing is the adoption of centralized fund hubs that interconnect the domestic market, streamlining the many-to-many communications among diverse players. As is often the case, CSDs are in a good position to invest in infrastructure projects for the entire market, providing a level-playing field for large asset management companies and SMEs alike. In the longer term, such local platforms can help increase investors' access to less globalized markets and open the door to service linkages among multiple markets, thereby accelerating fund market integration.

CASE STUDY

- Centralized fund platforms in Asia (Korea: FundNet, Chinese Taipei: FundClear, Indonesia: S-INVEST, Thailand: FundConnext).
- Korea: A centralized digital network called the FundNet was developed by the KSD in 2004, linking every fund market player in Korea. Market players can send trade/ settlement orders by logging into the FundNet interface, which sends the information to all relevant parties on STP technology without having to rely on manual methods. Vastly improved operational efficiency has driven market development. Daily operating volume for the fund business has jumped by 17 times from 2005 to 2016, from 0.14mn to 2.6mn trade messages. The cost-saving effect in the industry due to FundNet is estimated to be USD 67mn per year (KPMG Strategic Consulting Group, Dec.2013).
- Thailand: Faced with the challenges of excessive manual processes and spaghetti-like connection between market players, the Stock Exchange of Thailand (SET) developed a platform called the FundConnext in 1Q 2017 to drive industry development. As an outcome of close collaboration with the regulator and industry members, FundConnext standardizes many aspects of business practices in the Thai fund market, including account opening, KYC, and Net Asset Value (NAV) disclosure, and facilitates the STP messaging between market players.

RECOMMENDATION 2-5C: Regulators are encouraged to support the development of fund platforms led by infrastructure providers. The recent case of Thailand's platform is a good illustration of constructive cooperation between the regulator, CSD, and the market.

d) Comprehensive statutory understanding

When financial market infrastructure projects are envisaged, they need to have commercial viability. Where the retail market is involved, there needs to be continued focus on investor education and to provide investors with sufficient transparency to make informed decisions

There also should be provisions for instances where the mechanisms do not work as planned. For example, there must be a clear, well-defined dispute mechanism, which, for example in the cross-border context, might include using an agent. All infrastructure projects should be run with an entrepreneurial spirit.

3. Data Management and Technology

In addition to the discussions on FMIs, Symposium participants also discussed developing issues in data management and technology in financial markets. This was done for the purpose of promoting a common understanding of the current situation and the priority issues that the public and private sectors should address.

3-1. Fintech

In the coming year, the APFF FMI Fintech Substream will continue its focus on defining best practices and laying the groundwork for capacity building in three areas identified by the group in the APFF 2016 Progress Report, namely know your customer (KYC), e-payments, and cybersecurity.

a) Know Your Customer

Identity is a baseline for participation in the formal financial system. Approximately, 1.5 billion people around the world do not have an officially recognized document to prove their identity; many of whom live in emerging markets in across APEC. A government-issued ID is often essential for people to bank and transact, but biometrics, mobile phones, and data enable new ways to open up access and participation[15].

Classical forms of identity provisioning struggle to reach underserved populations, contain clear security vulnerabilities, and cannot be verified remotely. Several governments across APEC and other regions are piloting digital identity programs that would provision a digital identity credential that can be linked to biometrics. These digital ID platforms are scalable, as the information does not require a physical card or even physical presence to be provisioned and utilized.

Digital IDs can be linked with electronic forms of know-your-customer (e-KYC) verification mechanisms. A secure Digital ID Application Programming Interface (API) enables private sector entities to match identity data they have against the government database; enabling a seamless and instantaneous KYC process. These remote instantaneous verification procedures could enable financial services (alongside several other services) to be delivered on a far broader scale and in a more efficient manner.

RECOMMENDATION 3-1A: APEC Finance Ministers and responsible authorities are encouraged to support the following initiatives of APFF FMI Fintech Substream;

- **Conducting a review of the current digital ID and e-KYC initiatives being rolled out in several APEC member economies;**
- **Analyzing digital ID and e-KYC initiatives being conducted outside the region to document best practices that could be leveraged within the APEC region; and**
- **Focusing analysis on solutions that are interoperable at least, and harmonized at best, in order to promote economic integration among APEC member economies in fintech KYC developments**

[15] A good example is the Aadhaar authentication introduced by India, which allow people to access financial services using a universal biometric digital identity.

- **For example, the APEC Business Travel Card could be looked at as an example of a regional identity credential that could be replicated in the Digital ID context**

b) E-Payments

Payments form the core of the financial services ecosystem. People, regardless of income level, location, and education, engage in payments transactions. Currently, 85 percent of the world's payments transactions occur in cash. In certain parts of Europe, however, more than 85 percent of payments transactions are electronic. Electronic payments (e-payments) help to lower transaction costs, increase transparency, and make transfers of money faster and more efficient. Consequently, APEC member economies would benefit tremendously from further digitizing cash payments.

Payment card solutions are rapidly proliferating throughout the APEC region and the mobile smart phone is also being leveraged to move APEC economies towards a cashless society. There are over 5 billion mobile devices in the hands of consumers around the world. New electronic payment solutions that leverage the mobile device are being rapidly developed. The inter-operability and regulatory requirements associated with these new solutions is currently a challenge for the APEC ecosystem that the APFF FMI Fintech Substream can help to address.

There are a multitude of players currently introducing solutions for e-payments including governments, banks, card networks, mobile operators, and pure technology companies. There is a divergence between e-payments solutions that leverage telephone networks and those that leverage the Internet. There are also divergent standards for payment solutions leveraging the mobile phone itself. Finally, there are differences in how mobile and card based solutions interact. From a regulatory perspective, some e-payments solutions serve as a pass-through for traditional payments rails, other payments solutions store value, while still others operate outside of the traditional ecosystem. Each of these solutions pose different regulatory and consumer risks for APEC member economies.

RECOMMENDATION 3-1B: APEC Finance Ministers and responsible authorities are encouraged to support the following initiatives of the APFF FMI Fintech Substream;

- **Exploring whether there are inter-operability concerns that exist in the APEC e-payments ecosystem and whether APFF can make recommendations on how to resolve those concerns**
- **Seeking to create a primer on e-payments in the region**
  - **Seeking to diagram the e-payments landscape so that the multitude of actors, solutions, and risks across the APEC region is more easily understood**
  - **Creating a set of definitions to help guide policymakers in understanding the e-payments landscape**
  - **Making recommendations on regulatory frameworks for e-payment solutions based upon the varying risks that they pose, with the best possible accounting for varying market conditions in APEC member economies**

c) Cybersecurity

The digitization of financial services is coupled with the onset of new cyber-risks. Securing against those risks should be the goal of both the public and private sectors in APEC. Issues related to cybersecurity extend beyond fintech. Therefore, the APFF FMI Fintech Substream will coordinate its work with the perspectives from disruptive technologies/new FMI-like entities. The risks associated with cybersecurity are not well or uniformly understood by policymakers across the APEC region. The solutions to these new risks can be equally challenging to comprehend. Moreover, the role of policy and regulation for APEC member economies in cybersecurity is a tremendous challenge as technology shifts rapidly and fixed regulatory requirements lead bad actors to attack vulnerabilities that were not within the purview of specific regulation.

The major vulnerability associated with fintech is the multitude of new actors it brings into the financial services ecosystem and the linkages created between these new actors and in some cases their interaction with established financial institutions and systems in APEC. Fintech technologies such as tokenization, however, limit the cyber risks of these new actors by encrypting transactions and only passing along tokens instead of actual financial information. The password is another security vulnerability that has been proliferated by fintech, creating opportunities for cyber-criminals to seek password credentials to take over accounts. At the same time, new fintech solutions such as biometric and multi-factor authentication are helping enhance security by reducing reliance on passwords.

A cybersecurity ecosystem for APEC can only be as strong as its weakest link. And, that is why policymakers in APEC are interested in creating baseline cybersecurity requirements for participants in the Fintech ecosystem. The challenge with this approach, however, is that by setting a baseline for cybersecurity, APEC policymakers risk encouraging complacency in the ecosystem. Moreover, setting a baseline for cybersecurity among APEC member economies also risks highlighting for bad actors where the vulnerabilities lie. Policymakers must utilize more dynamic and flexible regulatory frameworks when approaching Fintech cybersecurity that will best protect the ecosystem in the APEC region.

RECOMMENDATION 3-1C: APEC Finance Ministers and responsible authorities are encouraged to support the following initiatives of the APFF FMI Fintech Substream;

- **Creating a typology of cybersecurity risks in the fintech ecosystem**
- **Engaging in research and analysis of emerging cybersecurity solutions and sharing those learnings with stakeholders**
- **Holding public-private forums to discuss its findings on cybersecurity risks and solutions and advocate how identified best practices can be adopted throughout the APEC ecosystem, without regulatory technology mandates wherever possible**

RECOMMENDATION 3-1D: Responsible authorities are encouraged to share information on cybersecurity among relevant bodies in the region.

3-2. Disruptive Technologies / new FMI-like entities

New so-called disruptive technologies provide tremendous opportunities for financial market infrastructures and market participants to operate more efficiently, better service public and private sectors, and increase and simplify access to financial data and products.

Disruptive technologies such as distributed ledger technologies, robo-advisers or artificial intelligence bring promises of better data management, faster access to data and cost reduction for the usage of information to benefit a growing financial product customer base through digitization.

These new technologies however also bring risks such as:

- technological and operational risks due to their lack of maturity;
- fragmentation risks due to a lack of technical and data standardization for mainstream and cross-border usage;
- cybersecurity and data confidentiality risks; and
- legal risks considering the existing regulatory uncertainty around their use, especially for cross-border activities, and the legal protections that are available (particularly in a consumer context).

RECOMMENDATION 3-2A: FMIs should experiment and contribute to the research and development exercise required to overcome the maturity challenge. They should work collaboratively with regulators, the financial industry and the broader public sector. Such collaborative experimentation is important not only to contribute to maturing these technologies further but also to better understand them, ensure focus on the right problems to be solved and identify as well as understand the risks. It also helps getting the necessary buy-in for when an implementation decision needs to be taken.

RECOMMENDATION 3-2B: Regulators and FMIs need to collaborate across markets to agree on harmonized domestic legal frameworks supporting the implementation of such new technologies and ensure cross-border regulatory certainty.

Standardization, both at technical and business data level, needs to be considered from the start to ensure inter-operability both at domestic and cross-border level, inter-operability between other implementations as well as with legacy systems and processes who will not disappear overnight. Leveraging existing reference data standards (Legal Entity Identifier, ISIN, etc.) and business standards such as ISO 20022, but also supporting collaborative open source initiatives such as the Hyperledger project, should be utilized rather than reinventing the wheel.

In this context, Cybersecurity will also need to be considered from the outset where collaboration will also be needed. Leveraging new technologies around fraud identification and attack prevention will also be critical to ensure the most modern and efficient solutions are implemented.

III. CONCLUDING SUMMARY

FMIs are the pillars of financial market integrity and market progress.

FMIs withstood the strains of extreme volatility brought about by the global financial crisis (GFC). Since then, the importance of ensuring their continued robustness has become a foremost concern of policy makers and regulators, as manifested in the adoption of the CPMI-IOSCO Principles for FMIs. In recent years, FMIs have also increasingly taken on new roles as the global regulatory agenda focused on promoting greater transparency of transactions and greater standardization of financial products. FMIs continue to stand as a bulwark against market disruptions.

Such an expansion of FMI roles is a response to new and rising complexities and costs, which need to be better understood and managed for markets to have higher levels of sustainability and economies of scale. For example, emerging capital markets struggle with the tension between business case viability and the need for a CCP for nascent derivatives markets to avoid punitive balance sheet costs for banks operating domestically.

On top of the new changes, overseas investors continue to face existing account opening and repatriation processes that need to be streamlined, while there are funds post-trade paper-intensive services that serve as a contrast to the electronic speed of investments. Cybersecurity concerns and responses have emerged to add to this complexity that could lead markets to develop as stand-alone digital fortresses, inhibiting cross-border investment flows. There are no clear and easy answers to any of these, and other, dilemmas.

As a start though, economies can consider these issues and needs that face FMIs, financial markets, intermediaries and cross-border investors. These include how to promote transparency through a standardized and common platform for trade reporting, how to improve coordinated monitoring of markets through facilitation of cross-border data flows, and how to maintain and broaden access to cross-border money transfer mechanisms providing the required transparency in an affordable and meaningful way. They also include issues such as the standardization of market practices, account structures, operational and processing models, as well as consistent tax treatment of domestic and cross-border transactions. Regulatory clarity and private-public sector collaboration are key to realizing new value from untangling some of these complexities.

As reported by the Asian Development Bank's Asian Economic Integration Report 2016, "…[it] is essential to follow an FMI development strategy that is both tailored to the AEC [ASEAN Economic Community] and draws from global best practices. There is no one-size-fits-all approach for regional FMI development. While Europe primarily chose a top-down approach to financial market integration, this is not necessarily right for the AEC. Thus, existing multilateral initiatives should be intensified to provide a policy environment that is both enabling and prudent for the public and private sector to foster a balanced regional FMI development path". While this was written with reference to ASEAN, it remains equally applicable to the rest of Asia-Pacific.

The potential benefits and goals of such collaboration would be to streamline unnecessary costs and fragmentation of markets, to enhance market liquidity and economies of scale, to be inclusive of economies and participants' involvement, facilitate financing and investments, and to lessen the cost of funding from international capital markets.

Symposium participants identified the above perspectives and issues that need to be addressed to improve the region’s FMIs and financial markets, and to facilitate cross-border portfolio investments in the region. As post-GFC rules are implemented and new technologies rapidly introduced in the region’s financial markets, requirements are evolving. Regulations and conditions need to be adjusted in a timely manner to support continued growth and manage current and emerging risks. Most recommendations presented in this report are meant for consideration immediately or within the next three years, which provides a critical window of opportunity for the market to develop and benefit from a coordinated policy effort.

At the same time, participants also recognized the wide diversity of capital markets’ stages of development in APEC, which means that a one-size approach will not fit all.

The industry proposes these feedback and recommendations for consideration and endorsement by the APEC Finance Ministers Process.

ATTACHMENT A: LIST OF FMI CROSS BORDER PRACTICE ROADMAP CORE (LARGE) GROUP INSTITUTIONS AND PARTICIPANTS

Institution (abbreviation)	Name	Title	Tele-conferences & emails	Seoul Symposium	Joint session with ABMF
Asian Development Bank (ADB)	Jae-Hyun Choi	CSIF Consultant	X	X	X
	Taiji Inui	ABMF Consultant			X
	Shigehito Inukai	ABMF Consultant			X
	Kosintr Puongsophol	Financial Sector Specialist	X		
	Matthias Schmidt	Custody Business Specialist (Consultant)			X
	Satoru Yamadera	Director, Principal Financial Sector Specialist , Office of the Director General, Sustainable Development & Climate Change Department	X	Panelist	X
Asia Facilitators	Robert Edwards	Managing Director		X	
Asia Securities Industry & Financial Market Association (ASIFMA)	Ashley Lee	Manager, Policy and Regulatory Affairs	X		
Autoriti Monetari Brunei Darussalam	Shaw Fhen Lim	Senior Manager, Payment & Settlement Systems Unit			X
	Md Kamrizan Antin	Manager, Payment & Settlement Systems Unit			X
Australian APEC Study Centre	Ken Waller	Director		X	
Australian Securities and Investments Commission (ASIC)	Rhonda Luo	Senior Specialist, Market Infrastructure		Panelist (Skype)	
Bain & Company Southeast Asia	Thomas Olsen	Partner		Panelist	
Banchile Inversiones	Hernán Arellano Salas	Gerente General (CEO)	X		
	José Antonio Díaz	Gerente de Inversiones (head of equities)	X		
Banco de Chile	Francisco Garces	Member of the Board		X	
Bangko Sentral ng Pilipinas	Bella Santos	Director, Payments and Settlements Office			X
	Remedios Macapinlac	Payments and Settlements Office			X
	Eleanor Turaray	Deputy Director, Payment and Settlement Systems Dept.			X
Bankers Association of the Philippines	Cesar O. Virtusio	Managing Director			X
	Pinky Padronia	Senior Associate Director			X
Bank of Japan	Megumi Takei	Deputy Director, Payment and Settlement Systems Dept.			X
Bank of Indonesia	Jultarda Hutagalung	Senior Analyst/Assistant Director, Payment System Management Department			X
	Noviati	Assistant Director, Payments System Policy & Oversight Dept			X
The Bank of Korea	Nayeon Park	Manager, Payment and Settlement Systems Department			X
	Jaeho Yoon	Manager, Payment and Settlement Systems Department		Panelist	
The Bank of Lao PDR	Sengouthai Dalat	Officer, Lao Securities Commission Office			X
	Sengthavong Luanglath	Head Division, Information Technology			X
	Nakhonsy Manodham	Deputy Secretary General, Lao Securities Commission Office			X
Bank of New York Mellon	Eric Ching	Director, Asset Servicing			X
	Hyeng Kyun Kim	Vice President		X	
	Rebecca Terner Lentchner	Co-Sherpa of APFF FMI, Head of Government Relations APAC, BNY Mellon	Co-Sherpa	Moderator	
	Tony Smith	Head of Collateral Management, Asia Pacific		X	
The Bank of Tokyo-Mitsubishi UFJ, Ltd.	Hiroaki Okumura	Chief Manager, Transaction Services Division			X
Bloomberg	Pablo Casaux	Latin America (ex-Brazil) Head of Market Structure Strategy, Head of Government, Institutional, Capital Markets and Strategic Relations, Capital Markets Structure Development and Regulatory Strategist	X		
	Claus Kwon	Head of Market Structures & Strategy and Contributions	X	X	
	Sudipto Lahiry	Manager, Core Product			X
	Rosanna Tejano	Branch Manager, Sales (Philippines)			X
Bolsa de Santiago	Juan Andrés Camus	Chairman, Santiago Stock Exchange	X		
	Nicolás Almazán	Chief Planning and Development Officer	X		
Bolsa de Valores de Colombia	Estefania Molina Ungar	Advisor to the CEO	X		
Bureau of the Treasury (Philippines)	Ma. Nanette Diaz	Director III, Liability Management Service			
	Tyrone Val Brotarlo	Attorney V, Law and Litigation Division – Legal Service			X
	Alvin Esmade	Special Investigator III, Securities and Documentation Division, Legal Service			X
	Harvey Juico	Legal Officer I, Securities and Documentation Division, Legal Service			X
	Kathleene Joyce Ramirez	Legal Officer I, Securities and Documentation Division, Legal Service			X
	Philsaint Bantang	Legal Officer I, Securities and Documentation Division, Legal Service			X
	Dennis Madrigal	Attorney V, Law and Litigation Division – Legal Service			X
	Gemmalyn Oaferina-Aguanta	Special Investigator III, Law and Litigation Division – Legal Service			X
	Anastacio Jeramieh John R. Caoayan IV	Legal Officer I, Complaints and Investigation Division – Legal Service			X
	Van Hudson J. Valiente	Legal Officer I, Complaints and Investigation Division – Legal Service			X
	Kamae Romorosa	Technical Assistant, Legal Service			X
The Central Bank of Russia	Vladimir Shapovalov	Head of expert group in financial markets development department		Panelist	

Institution (abbreviation)	Name	Title	Tele-conferences & emails	Seoul Symposium	Joint session with ABMF
China Central Depository & Clearing Co., Ltd. (CCDC)	Shixuan Gao	Business Manager, ChinaBond Pricing Center			X
	Tianhui Gao	Business Manager, CCDC Collateral Management Service Center			X
	Chen Li	Specialist, Technical Planning Department			X
Citibank	Catherine Simmons	Managing, Director, Head Asia Pacific Government Affairs		Panelist (Skype)	
	Tiffin Tanseco	Senior Vice President/Product Head, Markets & Securities Services			X
	Cheeping YAP	Head of Custody and Fund Services, Asia Pacific		Panelist	
	Laura Winwood	Government Affairs, Asia Pacific	X		X
Clearstream Banking S.A	Victor Ng	Vice President, Relationship Management (North Asia)			X
Credit Guarantee and Investment Facility	Munho Choi	Senior Investment Specialist, Deal Operations Department			X
	Dong Woo Rhee	Chief Financial Officer, Treasury and Financial Control Department			X
	Gene Soon Park	General Counsel & Board Secretary, Legal Department			X
	Jaclyn Tan	Senior Legal Officer, Legal Department			X
	Jackie Bang	Internal Audit			X
	William Rhee	Senior Legal Specialist, Legal Department			X
	Annlyn Wong	Risk Management Officer, Risk Management Department			X
	Guillermo Pablo III	Risk Management Specialist, Risk Management Department			X
	Sophia Baesa	Senior Risk Management Officer, Risk Management Department			X
	Paula Arjonillo	Risk Management Specialist, Risk Management Department			X
	Aarne Dimanlig	Chief Risk Officer, Risk Management Department			X
Department of Finance (Philippines)	Aaron Ang	Economist, International Finance Group			X
	Al Rillon	Economist, International Finance Group			X
	Cheryl Caballes	Economist, International Finance Group			X
	Ferdinand Ortilla	Economist, International Finance Group			X
	Herminio Runas Jr.	Director, International Finance Group			X
Deutsche Bank AG	Sang-Joon Park	Head of Investor Services, Seoul		Panelist	
	Boon-Hiong Chan	Co-Sherpa of APFF FMI, Director, Head of Market Advocacy APAC, MENA, Deutsche Bank	Co-Sherpa	Moderator	X
	Cherine Yeo	Assistant Vice President, Market Advocacy APAC, MENA	X		
Deloitte Tohmatsu	Taketoshi Mori	Senior Manager, Advisory			X
	Daisuke Kuwabara	Partner, Advisory			X
The Depository Trust & Clearing Corporation (DTCC)	Nellie Dagdag	Managing Director, Global Industry Relations, Sales & Solution Delivery (Philippines)			X
	Jean-Remi Lopez	Director of Government Relations for Asia Pacific	X	Symposium Rapporteur	X
	Oliver Williams	Executive Director, Head of Product and Change Management, Asia Pacific, DTCC DerivServ		Panelist	
	Evelyn Valdez	Industry Relations Specialist, Sales & Solution Delivery			X
	Paul Marchant	Regional Product Manager, Product Management			X
	Nigel Gnoh	Business Development Manager, Business Development			X
	John Elmer Portugal	Business Development Executive, Sales			X
EquiChain	Hugh Madden	CTO		Panelist (Skype)	
Ernst & Young Solutions	Amy Ang	Partner, Financial Services Tax	X	Panelist	
Euroclear	Gaetan Gosset	Director, Head of Product Management Asia Pacific	X	Moderator	X
Federation of Korean Industries	Chi-Sung EOM	Deputy Secretary General, Head of International Cooperation Department		Host and Presenter	
Financial Services Agency	Tai Terada	Deputy Director		Presenter and Panelist	
Financial Supervisory Service (FSS) (Korea)	Hyung-joon Yoon	Lead Manager, Corporate Disclosure System Office/Securities Issue System Team			X
Fundacion Chilena del Pacifico	Loreto Leyton	Directora Ejecutiva	X		
Global Financial Markets Association (GFMA)	Paul Hadzewycz	Senior Associate	X		
The Hong Kong-APEC Trade Policy Study Group Limited	Kristine Yang	Consultant			X
Hong Kong Exchanges and Clearing Limited (HKEx)	Kevin Rideout	Managing Director, Market Development Division		Panelist	
	Bernie Kennedy	Senior Business Advisor, COO Office		Panelist	
Hong Kong Monetary Authority (HKMA)	Clarence Hui	Senior Manager, Financial Infrastructure Department			X
HSBC	Soon Hyok An	Senior Vice President, Head of Trustee		X	
	Kyung Hee Yu	Senior Vice President, Head of Direct Custody,		X	
Hunter Powell Investments	Tenby Powell	Member, ABAC (New Zealand) Director; Hunter Powell Investments		X	
International Capital Market Association (ICMA)	Mushtaq Kapasi	Chief Representative, Asia-Pacific	X	Moderator	
International Finance Corporation	Matthew Gamser	CEO, SME Finance Forum		Panelist	
	Griselda Santos	Senior Financial Sector Specialist, Finance and Markets			X
International Monetary Fund (IMF)	Manmohan Singh	Senior Financial Economist		Panelist (Skype)	
International Swaps and Derivatives Association (ISDA)	Keith Noyes	Regional Director, Asia Pacific	X	Panelist	
	Rishi Kapoor	Director, Policy, Asia-Pacific	X	Moderator	
	Hyelin Han	represent ISDA for Regulatory Perspectives (FMI)	X		
Iron Duke Partners	Phil O'Reilly	Managing Director		X	

Institution (abbreviation)	Name	Title	Tele-conferences & emails	Seoul Symposium	Joint session with ABMF
Japan Exchange Group (JPX)	Hitoshi Izumi	Head Global Strategy & Communications, Global Strategy	X		
	Andrew Wong	Manager	X		
	Koji Ito	Senior Officer, New Listings, Tokyo Stock Exchange, Inc. (SF1 Chair)			X
	Michiaki Shinohara	General Manager, New Listings, Tokyo Stock Exchange, Inc.			X
Japan Securities Depository Center, Incorporated	Yuji Sato	Senior Manager, Corporate Strategy Department			X
John Hopkins SAIS	Beth Smits	Doctoral Candidate	Co-Sherpa	Moderator	
JP Morgan Chase Bank N.A	Masayuki Tagai	Managing Director, Global Market Infrastructures	X		X
Korea Exchange (KRX)	Seo Yeon Park	Deputy Manager		X	
Korea Financial Investment Association (KOFIA)	Dongchul Shin	Director		X	
	Sung Yang	International Advisor		X	
	Seo Hee (Hanni) Kang	Manager		X	
Korea Securities Depository (KSD)	Kwansig Yoon	Director, Fund Business Department		X	
	Seung-Kwon Lee	Team Head, Global Business Department			X
	JH Park	Team Head, Fund Business Department		X	
	Jong Hyung Lee	(SF2 Chair) Director, Global Business Department			X
	You Na Im	Senior Manager, Fund Business Department		X	
	Sunny Chung	Assistant Manager, Fund Planning Team, Fund Business Dept.,	X	Moderator and MC	
Malaysia Digital Economy Corporation (MDEC)	Hao Yang Siew	Fintech Division			X
Melbourne Law School	Andrew Godwin	Associate Professor; Director of Transactional Law; Director of Studies for the Graduate Program in Banking and Finance Law; Associate Director of the Asian Law Centre,		Panelist	
Metropolita Bank and Trust Company	Ferdinand Antonio Tansingco	Head, Financial Markets Sector and Treasurer			X
Ministry of Economy & Finance (Cambodia)	Vannak Chou	Deputy Director General, General Dept of Financial Industry			X
	Lida No	Head of Financial Sector Integration Div., Financial Markets & Institution Dept			X
Ministry of Finance Republic of Indonesia, Fiscal Policy Agency	Budi Arif	Head of Subdivision for Banking and Financing, Center for Financial Sector Policy, Fiscal Policy Agency		X	
	Vincentius Krisna Juli Wicaksono			X	
	Gandy Setiawan	Deputy Director, ASEAN Economic and Finance Cooperation Division			X
	Sepriza Triasanditya	Desk Manager for Non Finance Forum of ASEAN and Partners, ASEAN Economic and Finance Cooperation Division			X
Ministry of Finance, Japan	Daisuke Kasai	Section Chief, Regional Financial Cooperation Division, International Bureau			X
	Yuji Shimode	Officer, Regional Financial Cooperation Division			X
Ministry of Finance, Lao PDR	Chanpasith Sengphaathith	Deputy Director of Division, International Economic Integration			X
	Zamountry Dalaphone	Technical Official, International Economic Integration			X
Ministry of Strategy and Finance (Korea)	Yongjun Lee	Deputy Director, Financial Cooperation Team			X
Mizuho Bank, Ltd.	Koji Kawase	Senior Manager, Global Products Coordination Department			X
National Bank of Cambodia	Dara Chea	Chief Section, Payment System Department			X
	Sarat Ouk	Director, Payment System Department			X
New Zealand International Business Forum/ABAC NZ	Stephanie Honey	Associate Director		X	
Nomura Research Institute (NRI)	Hiroyuki Suzuki	Chair, APFF; Member, ABAC (Japan) Vice Chairman, NRI		APFF Chair	
	Julius Caesar Parreñas	APFF Coordinator; Senior Advisor	APFF Coordinator	X	X
	Ken Katayama	Co-Sherpa of APFF FMI; Senior Researcher, NRI	Co-Sherpa	Presenter and Moderator	Session Chair
Nomura Research Institute Singapore, Manila Branch	Soleil Corpuz	Senior Business Analyst, Consulting Division			X
	Rose Ferrer	Consultant, Consulting Division			X
NTT DATA Corporation	Masao Oumi	Senior Manager, Business Strategy Dept., Financial Segment			X
NTT DATA Institute of Management Consulting	Masahiro Nishihara	Senior Manager, Financial Business Planning Consulting			X
NTT DATA SYSTEM TECHNOLOGIES Inc.	Reiko MATSUMOTO	Application Engineer, System Planning Development Group / BOJ IT Services Division			X
	Naotaka SHIBASAKI	Senior Manager, System Planning Development Group / BOJ IT Services Division			X
	Yoshiaki Wada	Senior Manager, BOJ IT Services Division			X
	Daisuke YACHI	Manager, System Planning Development Group / BOJ IT Services Division			X
O-bank	Graham Wang	Assistant Vice President		X	
	Willy Hsieh	Associate		X	

Institution (abbreviation)	Name	Title	Tele-conferences & emails	Seoul Symposium	Joint session with ABMF
The Pan Asia Securities Lending Association (PASLA)	Stuart Jones	Chairman, PASLA; Executive Director, Morgan Stanley		Panelist	
	Paul Solway	Managing Director	X		
PayPal	David Katz	Sherpa of APFF FMI Fintech; Deputy Head of Global Government Relations & Head of Asia Pacific Government Relations, PayPal	Sherpa for FMI Fintech	Presenter and Moderator	
PDS Group	Cesar Crisol	President & CEO			X
	Antonino Nakpil	President & COO			X
	Ma. Theresa Ravalo	President & COO, Philippine Depository & Trust Corp / Phil Securities & Settlement Corp			X
	Eleanor Rivera	Head of Market Regulatory Services			X
PT Kustodian Sentral Efek Indonesia (KSEI)	Aditya Kresna Priambudi	Head of Project Management Unit, Project Management			X
	Mohammad Awaluddin	Head of Account Management Unit, Account Management			X
Public Debt Management Office (Thailand)	Puttipong Kanna	Economist, Bond Market Development Bureau, International Bond Market Policy Division			X
	Sriarpa Phoomiwatthana	Senior Economist, Bond Market Development Bureau, International Bond Market Policy Division			X
	Oraporn Thomya	Director Of International Bond Market Policy Division, Bond Market Development Bureau, International Bond Market Policy Division			X
Securities and Exchange Commission of Cambodia	Sambath Chhun	Deputy Director General			X
	Rady Mok	Head of Division, Research, Training, Securities Market Development, and IR Department			X
Securities and Exchange Commission (SEC) (Philippines)	Ephyro Luis AMATONG	Commissioner			X
	Vicente Gracianio Felizmentio, Jr.	Director, Markets & Securities Regulation Dept			X
	Erwin Edward Mendinueto	Chief Counsel, Markets & Securities Regulation Dept			X
	Allysa Ayochok	SEC Examiner III, Markets & Securities Regulation Dept - Investments Products & Services Div.			X
	Krizia Pauline Felice Ferrer	SEC Examiner III, Markets & Securities Regulation Dept - Investments Products & Services Div.			X
	Rosamund Faye Melig	Securities Specialist I, Markets & Securities Regulation Dept - Markets & Intermediaries Div			X
	Melanie Garcia	Accounting Specialist, Markets & Securities Regulation Dept - Markets & Intermediaries Div			X
Securities and Exchange Commission (Thailand)	Kruaonn Tontyaporn	Assistant Director, Bond Department			X
Standard Chartered Bank Singapore	John Pilott	Global Head of Regulatory Operations, Financial Markets		Panelist	
The Stock Exchange of Thailand	Kitti Sutthiatthasil	Senior Vice President		Panelist	
SME Finance	Hye Ji Kim	Research Officer		X	
Sumitomo Mitsui Banking Corporation	Hiroshi Kawagoe	General Manager, Transaction Business Planning Dept.			X
SuperCharger & HKU University	Jano Barberis	Founder of Supercharger / PhD Candidate at HKU Law School, Law			X
SWIFT	Alexandre Kech	Head of Securities & FX Markets	X	Moderator	
	Jean Chong	Manager, Securities & FX Markets			X
	Lisa O'Connor	Head of Standards, APAC (APAC Standards)			X
	Simona Catanescu	Account Director, ASEAN			X
ABAC APFF -Sycip Gorres Velayo & Co. (SGV & Co.)/ Ernst and Young Manila	Christian Lauron	Partner, Financial Services - Advisory			X
	Christian Chua	Senior Director, Financial Services - Advisory			X
	Veronica Arce	Senior Director, Financial Services			X
	Vicky Lee-Salas	Partner, Financial Services Head (Financial Services)			X
Thai Bankers' Association	Kobsak Dungdee	Secretary General			X
The Thai Bond Market Association	Ariya Tiranaprakij	Senior Executive Vice President, Bond Market Operation			X
Thailand Securities Depository Co., Ltd	Pataravasee Suvarnsorn	Executive Vice President - Head of Market Operations Division			X
	Praphaphan Tharapiwattananon	Vice President-Head of Depository Department			X
Thomson Reuters	Daniel Warelis	Government and Regulatory Affairs			X
Visa (Philippines)	Dan Wolbert	Senior Director, Philippines Country Team			X
	StuartTomlinson	Country Manager, Philippines Country Team			X
Visa (Korea)	Kevin Kyungil Cheong	Senior Director		X	
Visa (Singapore)	Arvin SINGH	Director, New Channels (Digital Products)			X
			34	60	135

Seoul Symposium Host/Supporting Institutions

Institution (abbreviation)	Name	Title
Federation of Korean Industries	Chul Han "Alex" Park	Head of Global Economy Team
	Jong-Chan Park	Manager, Global Economy Team
International Marketing Partners	Hyujung Song	President
	Shinhye Hwang	Senior Director

ATTACHMENT B: CONFERENCE CALLS AND MEETINGS

Date	Type	Participants	Issues discussed
29th September 2016	Tele-confernece	Co-Sherpas	Reviewed past discussions and confirmed target (symposium, roadmap)
7th October 2016	Tele-confernece	Co-Sherpas	Agreed on sharing the industry contacts
18th October 2016	Tele-confernece	Co-Sherpas	Discussed focus topics
25th October 2016	Tele-confernece	Co-Sherpas	Discussed focus topics
2nd November 2016	Tele-confernece	Co-Sherpas	Discussed focus topics
25th November 2016	Tele-confernece	Co-Sherpas	Discussed annual work schedule
December 2016	Teleconferences and visits	ADB, BOJ, Euroclear, FSA, ICMA, IMF, Jasdec, JPX, JSDA, PASLA, Zenginkyo,	Inquired joining the initiative
15th December 2016	Tele-confernece	Core group members	Discussed format of the symposium, high-level thoughts, and task sharing
11th January 2017	Tele-confernece	Core group members	Discussed roles, key messages, groupings, format of the symposium.
17th January 2017	Tele-confernece	Santiago Stock Ex	Explained the initiative, discussed the challenges of MILA
18th January 2017	Tele-confernece	Bloomberg	Explained the initiative, discussed the challenges of Latin American markets
24th January 2017	Tele-confernece	Banchile Inversiones	Explained the initiative, discussed the challenges of Latin American markets
February 2017	Teleconference and visits	Ernst and Young, FSA, HKEx, JPX, SGX	Inquired joining the initiative
8th February 2017	Tele-confernece	Core group members	Discussed draft agenda, introduction from participants from Latin America
2nd March 2017	Tele-confernece	Core group members	Discussed problem statement, symposium format, speakers, logistics
28th March 2017	Tele-confernece	Core group members	Discussed working draft, storyline of sessions at the symposium
11th April 2017	Tele-confernece	Core group members	Discussed following up officials, Korean institutions, Initial draft roadmap
25th April 2017	Symposium	Speakers, Guests	Whole day sessions discussing from regulatory issues to technology
26th April 2017	Meeting	Section leaders	Discussed revising the roadmap, preparing further communications with officials incl. ABMF members
26/29 May 2017	Tele-confernece	Section leaders	Discussed the recommendations to be reflected to the roadmap
14/23 June 2017	Visits	JSDA, BOJ	Discussed the recommendations and their backgrouds/reasons
4th July 2017	Conference	Section leaders, ASEAN+3 Bond Market Forum members	Discussed the recommendations and their backgrouds/reasons

ATTACHMENT C: PROGRAM OF FMI SYMPOSIUM IN SEOUL

Asia-Pacific Financial Forum Symposium
DEVELOPING APEC'S FINANCIAL MARKET INFRASTRUCTURE

25 April 2017
Diamond Room, Federation of Korean Industries Conference Center
Seoul, Korea

Organized by
APEC Business Advisory Council

Hosted by
FKI 전국경제인연합회
Federation of Korean Industries

Co-Sponsors
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NRI

07:45-08:15	Registration and Networking
08:15-08:45	**OPENING SESSION**
5 mins	***Welcome address*** Mr. Chi-Sung EOM, Deputy Secretary General, Head of International Cooperation Department, Federation of Korean Industries
10 mins	***Opening remarks*** Mr. Hiroyuki Suzuki, Chair, Asia-Pacific Financial Forum; Member, ABAC Japan; and Vice Chairman, Members of the Board, Nomura Research Institute, Ltd.
15 mins	***Keynote speech*** TBD, Korean Government
08:45-10:15	**SESSION A: THE ROLES OF FINANCIAL MARKET INFRASTRUCTURES IN THE REGION AND REGULATORY PERSPECTIVES**
08:45-09:30	**SESSION A-1: PERSPECTIVES FROM REGULATORS** ➢ To establish FMI's key roles in (i) facilitating cost-effective and efficient investments (ii) supporting financial market stability and integrity and (iii) facilitating financial inclusion, fair and equitable competition and innovation. ➢ Contributions to the growth the regions' economy. ➢ What are the economies, regulators and FMI priorities re: FMI 2017+? ➢ How are the goals associated with above (i), (ii) and (iii) being achieved today? ➢ What are the challenges that regulators and public sector face and attempt to balance?
45 mins	***Panel discussion*** Moderator: Ms. Rebecca Terner Lentchner, Co-Sherpa of APFF FMI Head of Government Relations APAC, BNY Mellon Panelists: ■ Mr. Vladimir Shapovalov, Head of Expert Group in Financial Markets Development Department, The Central Bank of the Russia ■ Mr. Kevin Rideout, Managing Director, Market Development Division, Hong Kong

Exchanges and Clearing Limited (HKEX)

- Mr. Keith Noyes, Regional Director, Asia-Pacific, International Swaps and Derivatives Association, Inc. (ISDA)

09:30-10:15 **SESSION A-2: PERSPECTIVES FROM INTERNATIONAL ORGANIZATIONS**
- FINANCIAL CRISIS, RISK MITIGATION, EFFICIENCY AND REGIONAL COOPERATION -

- Regional Financial Integration
- G20 regulatory reform and APEC
- Local CCP for OTC derivatives transactions
- Financial Intermediaries and the role of market infrastructure

45 mins ***Panel discussion***
Moderator: Mr. Ken Katayama, Co-Sherpa of APFF FMIs
Senior Researcher, Nomura Research Institute (NRI)

Panelists:

- Mr. Satoru Yamadera, Principal Financial Sector Specialist, Sustainable Development and Climate Change Department, Asian Development Bank (ADB)
- Mr. Manmohan Singh, Senior Financial Economist, International Monetary Fund (IMF), (joining via audio line)
- Mr. Keith Noyes, Regional Director, Asia-Pacific, International Swaps and Derivatives Association, Inc. (ISDA)

10:15-10:35 Coffee Break

10:35-14:50 **SESSION B: FINANCIAL MARKET INFRASTRUCTURES: PROCESS AND INSTRUMENTS**

10:35-11:35 **SESSION B-1: SECURITIES MARKETS: POST-TRADE ECOSYSTEM**

<potential topics to be shortlisted>

- Changing roles of FMIs and the new relationships with market participants and regulators
- Post-trade and its roles in the financial sector - what are the changes?
- Fintech and technology impacts on FMIs - what, how and where? Are regulatory responses sufficient so far?
- Cross-border efficiency and market integration - what are the dismantled barriers and what are the new barriers?
- Main regulatory drivers that have shaped FMI/post-trade ecosystem - what are the new complexities to alleviate?
- What are the areas of potential policy and regulatory adjustments that can catalyse certain positive benefits further / encourage certain innovations?
- What can make this region/Asia/ASEAN capital markets less attractive to investors and domestic capital market activities?
- What are some near-term actionable items that can make the region's capital markets more attractive and/or more resilient that regulators and policy makers can support? E.g. tech re-use, greater automation, etc?

60 mins ***Panel discussion***
Moderator: Mr. Boon-Hiong Chan, Co-Sherpa of APFF FMI,
Director, Head of Market Advocacy, APAC, GTB, Deutsche Bank AG Singapore

Panelists:

- Mr. Satoru Yamadera, Principal Financial Sector Specialist, Sustainable Development and Climate Change Department, Asian Development Bank (ADB)
- Mr. Kitti Sutthiatthasil, Senior Vice President, Head of Strategy Department, The Stock Exchange of Thailand
- Ms. Bernie Kennedy, Senior Business Advisor, COO Office, Hong Kong Exchanges and Clearing Limited (HKEX)
- Mr. Rob Edwards, Managing Director, Asia Facilitators Ltd.

11:35-12:15 **SESSION B-2: NON-RESIDENT ACCOUNTS, TAX, INVESTOR IDENTIFICATION AND TRANSPARENCY**

	➢ Holding structure – legal and operational ➢ Insolvency and asset protection ➢ Transparency mechanisms ➢ Key tax issue that inhibits cross-border flow
40 mins	***Panel discussion*** Moderator: Mr. Gaetan Gosset, Director and Head of Product Management, Asia-Pacific, Euroclear Panelists: ■ Sang-Joon Park, Head of Investor Services Korea, Deutsche Bank ■ Ms. Amy Ang, Partner, Financial Services Tax, Ernst & Young Solutions LLP EY ASEAN and Singapore Leader, Financial Services Tax
12:15-13:15	Lunch
13:15-13:55	**SESSION B-3: INCREASING MARKET EFFICIENCY: ISSUES SPECIFIC TO REPO/LENDING** ➢ Liquid and deep capital markets, with repo/lending functioning well help diversify risk among types of market participants across economies. ➢ Collateral and Monetary policy / capital controls ➢ Collateral in Financial Plumbing- Transparency & short-reporting? Observed need for harmonization of coordinated consistent best practices (Roadmap to have local currency securities as high quality eligible collaterals.) ➢ Effect of international prudential regulation (e.g., Basel) on Asian repo market development and liquidity ➢ Repo documentation in Asia? benefits/drawbacks/feasibility of international standards
40 mins	***Panel discussion*** Moderator: Mr. Mushtaq Kapasi, Chief Representative, Asia-Pacific, International Capital Market Association (ICMA) Panelists: ■ Mr. Stuart Jones, Chairman, The Pan Asia Securities Lending Association (PASLA); Executive Director, Morgan Stanley ■ Ms. Rebecca Terner Lentchner, Co-Sherpa of APFF FMI, Head of Government Relations APAC, BNY Mellon
13:55-14:35	**SESSION B-4: INCREASING MARKET EFFICIENCY: ISSUES SPECIFIC TO DERIVATIVES** ➢ Liquid and deep capital markets, with derivatives functioning well help diversify risk among types of market participants across economies. ➢ Ways to standardize market practices, harmonize reporting standards and inter-operability among TRs. ➢ Harmonization of reporting requirements across jurisdictions ➢ Greater regulatory endorsement of existing standards already in use ➢ Increased availability of substituted compliance ➢ Greater cross-border regulatory focus on global aggregation mechanisms ➢ Connectivity between TRs and alignment of data standards and formats ➢ What are the Derivatives FMI blueprint and next steps?
40 mins	***Panel discussion*** Moderator: Mr. Rishi Kapoor, Director, Policy, Asia Pacific, International Swaps and Derivatives Association, Inc. (ISDA) Panelists: ■ Ms. Rhonda Luo, Senior Specialist, Market Infrastructure, Australian Securities and Investments Commission (ASIC) (joining via audio line) ■ Mr. John Pilott, Global Head of Regulatory Operations, Financial Markets, Standard Chartered Bank Singapore ■ Mr. Oliver Williams, Executive Director, Head of Product and Change Management, Asia Pacific, DTCC DerivServ

14:35-14:50	**SESSION B-5: UPDATE ON THE ASIA REGION FUNDS PASSPORT (ARFP)** ➢ Brief update on ARFP Joint Committee's discussion ➢ Q&A with the floor
15 mins	***Presentation and Q&A*** Moderator: Ms. Sunny Chung, Assistant Manager, Fund Planning Team, Fund Business Dept., Korea Securities Depository (KSD) Speaker: ■ Tai Terada, Deputy Director for International Financial Markets, Office of International Affairs, Financial Services Agency Japan
14:50-15:30	**SESSION B-6: FUND SERVICES** ➢ Definition – Fund services ➢ Synergies between fund investment, fund passports, and fund services ➢ Importance of fund services ➢ Scope of fund processing operations and different models ➢ Emergence of centralized fund platforms in Asia ➢ Standardization efforts and the focus on fund data ➢ Fund Services blueprint next steps
40 mins	***Panel discussion*** Moderator: Ms. Sunny Chung, Assistant Manager, Fund Planning Team, Fund Business Dept., Korea Securities Depository (KSD) Panelists: ■ Mr. Tai Terada, Deputy Director for International Financial Markets, Office of International Affairs, Financial Services Agency Japan ■ Mr. Kitti Sutthiatthasil, Senior Vice President, Head of Strategy Department, The Stock Exchange of Thailand ■ Mr. Cheeping Yap, Managing Director, Custody and Fund Services Head, Asia, Citibank, N.A.
15:30-15:45	Coffee Break
15:45-17:35	**SESSION C: DATA MANAGEMENT AND TECHNOLOGY**
15:45-16:00	**SESSION C-1: DATA MANAGEMENT, TECHNOLOGY AND CYBERSECURITY – AN OVERVIEW** ➢ What are the processes that can change in the future and what are the new risks/costs? ➢ What are the re-usable technology components in FMI such that investment $ can be released for new technology investment areas like cybersecurity
15 mins	***Presentation*** Speaker: ■ Mr. Ken Katayama, Co-Sherpa of APFF FMI, Senior Researcher, Nomura Research Institute (NRI)
16:00-16:15	**SESSION C-2: E-PAYMENTS BRIEF** ➢ E-Payments have a major impact by lowering transaction costs, increasing transparency, and making transfers of money faster and more efficient. ➢ E-Payments can be a driver of economic growth – study of six APEC economies showed 1 percent increase in online sales resulted in 0.175 increase in GDP. ➢ Government has a big role to play in enabling regulatory regime and as a user of e-payment for government services to drive adoption. ➢ E-Payment increases transparency of economic activity, reducing prospects for corruption, 'black money' and increase in tax revenue. ➢ Where are we now? The current challenges to solve, does bitcoin-like token or sovereign digital currency have a role to play in reducing transaction costs and promoting regional economic integration? ➢ What are the future directions for e-payments?
15 mins	***Presentation***

Speaker:

- Mr. David Katz, Sherpa of APFF FMI Fintech, Deputy Head of Global Government Relations and Head of Asia Pacific Government Relations, PayPal Inc.

16:15-16:55	**SESSION C-3: E-PAYMENTS PANEL DISCUSSION**

- How can cross-border remittance effectively comply with investor asset protection, KYC/AML and restricted currency regulations? The compliance challenges to a regional cross-border investor
- What are the advances in Instant Payment infrastructure and the future of central bank settlement?
- Is there a role for a "crypto-token" for more effective XB trading in a diverse FX region?
- What are the prospects/rationale for APEC central banks to consider adopting distributed ledger technology to issue sovereign crypto currency?
- How should regulators consider balancing benefits of greater transparency of e-payments with expectations for protection privacy?
- What are the risks regulators should be thinking about and how might they approach managing them?
- What are the trends in this space, the new stakeholders in a digitalized financial market ecosystem and how can the region better coordinate and work together?
- What are the key activities for a regional payments FMI blueprint?

40 mins **_Panel discussion_**

Moderator: Mr. David Katz, Sherpa of APFF FMI Fintech, Deputy Head of Global Government Relations and Head of Asia Pacific Government Relations, PayPal Inc.

Panelists:

- Mr. Matthew Gamser, CEO, SME Finance Forum, International Finance Corporation
- Mr. Thomas Olsen, Partner, Bain & Company Southeast Asia
- Ms. Catherine Simmons, Managing Director, Head, Asia Pacific Government Affairs, Citibank, N.A.

16:55-17:35	**SESSION C-4: FMI DATA, CYBERSECURITY AND DISRUPTIVE TECHNOLOGIES**

- Exploring the level of collaboration on standardization of the technological layer (R3, Hyperledger Project, IPL) and of the business layer (leveraging of data and business ISO standards)
- Current application of DLT/Blockchain
- Technical management, deterrence, enforcement and recovery. Update on cybersecurity threats to FMIs and cross-border aspects to consider.
- Does the region risk silos of encryptions, encryption complexity, laws/regulations and a new area of complexity (across economies, in different applications/interfaces, etc.)?
- Promotion of LEI for entities and support creating good national personal ID of developing economies.
- What are the trends in this space, the new stakeholders in a digitalized financial market ecosystem and how can the region better coordinate and work together?
- Domestic implementation real story use case: ASX, MAS. Description, what can we learn from these POC or prototype implementations, likely outcome.
- Cross-border implementation real story use cases: ECB pan-European securities Issuance, SWIFT Nostro Account reconciliation, DTCC?
- Inter-operability and standardizations (technical and business layer)

40 mins **_Panel discussion_**

Moderator: Mr. Alexandre Kech, Head of Securities & FX Markets, APAC SWIFT

Panelists:

- Mr. Jaeho Yoon, Manager, Payment and Settlement Systems Department, The Bank of Korea
- Professor Andrew Godwin, Associate Professor; Director of Transactional Law; Director of Studies for the Graduate Program in Banking and Finance Law; Associate Director of the Asian Law Centre, Melbourne Law School, University of Melbourne
- Mr. Hugh Madden, CTO of EquiChain (joining via audio line)
- Mr. Jean-Remi Lopez, Director of Government Relations, Asia Pacific, The Depository

Trust & Clearing Corporation (DTCC)

17:35-17:45	**SESSION D: CONCLUSIONS AND NEXT STEPS**	
10 mins	■	Mr. Ken Katayama, Senior Researcher, Nomura Research Institute (NRI)
17:45	End of Symposium	

18:00-20:00	**NETWORKING COCKTAIL RECEPTION** **Venue: FKI Conference Center foyer**

APFF FMI Work Stream Core Group
Post-Conference Special Meeting

26 April 2017
Emerald Room, Federation of Korean Industries Conference Center
Seoul, Korea

07:45-07:55 ***Opening remarks***

- Dr. J.C. Parreñas, APFF Coordinator and Senior Advisor, Nomura Research Institute (NRI)

07:55-08:05 ***Recap of the Symposium***

- Mr. Boon-Hiong Chan, Director and Head of Market Advocacy, Asia-Pacific, Middle East and North Africa, Deutsche Bank AG
- Mr. Ken Katayama, Senior Researcher, Nomura Research Institute (NRI)

08:05-08:25 ***Review of Discussions: Regulatory Perspectives***

- Session Moderators (10 minutes each)

08:25-08:55 ***Review of Discussions: Process and Instruments***

- Session Moderators (5 minutes each)

08:55-09:15 ***Review of Discussions: Data Management and Technology***

- Session Moderators (5 minutes each)

09:15-09:40 ***Next Steps to Finalize Roadmap***

- Identification of issues to discuss in July ABMF session
- Logistical considerations

09:40-09:45 ***Closing remarks***

- Mr. Hiroyuki Suzuki, Chair, Asia-Pacific Financial Forum; Member, ABAC Japan; and Vice Chairman, Members of the Board, Nomura Research Institute, Ltd.

09:45 **End of Meeting**

Some of the conference materials could be downloaded from ABAC Web site:

https://www2.abaconline.org/page-content/22613667/content

ATTACHMENT D: PROGRAM OF JOINT SESSION WITH ABMF IN MANILA

<table>
<tr><th colspan="2">Sub-Forum 2 Joint session with Asia Pacific Financial Forum</th></tr>
<tr><th>TIME</th><th>PROGRAM</th></tr>
<tr><td>12:30 – 13:00</td><td>Registration</td></tr>
<tr><td>13:00 – 13:10</td><td>Opening Remarks
- J.C. Parrenas, APFF Coordinator, Nomura Research Institute (NRI)</td></tr>
<tr><td>13:10 – 14:40</td><td>Discussion on the proposal of a roadmap for improving the region’s FMI by Asia Pacific Financial Forum (APFF)
- APFF FMI Cross Border Practice Co-Sherpa Ken Katayama, NRI
Participants from the Seoul Symposium can be called on to provide more information:
- Boon-Hiong Chan, APFF FMI CBP Co-Sherpa, Deutsche Bank
- Jean-Remi Lopez, Symposium Panelist and Rapporteur, DTCC
- Gaetan Gosset, Moderator (Account structure and tax), Euroclear
- Jean Chong, Lisa O’Connor, representing Alexandre Kech, Moderator (Disruptive technologies), SWIFT
1. Introduction
- The objectives and structure of the APFF FMI initiative
- The structure of the roadmap
- Brief summary of the Symposium in Seoul
2. Draft recommendations
- Perspectives from International Organizations
- Securities Post Trade Ecosystem
- Non-resident Accounts and tax
Discussion on the key messages to be included in the report to APEC Finance Ministers Process
- Feedback from ABMF members and guests</td></tr>
<tr><td>14:40 – 15:00</td><td>Coffee break</td></tr>
<tr><td>15:00 – 16:30</td><td>Discussion on the proposal of a roadmap for improving the region’s FMI by Asia Pacific Financial Forum (APFF)
3. Draft recommendations
- Increasing Market Efficiency: Repo/Lending and Derivatives
- Fund Services
- FMI Fintech and Disruptive Technologies
Discussion on the key messages to be included in the report to APEC Finance Ministers Process
- Feedback from ABMF members and guests</td></tr>
<tr><td>16:30 – 16:45</td><td>Closing</td></tr>
</table>

Attachment E: List of Abbreviations

ABAC	APEC Business Advisory Council
ABMF	ASEAN+3 Bond Market Forum
ADB	Asian Development Bank
AFSF	Asian Fund Standardization Forum
AML	Anti-Money Laundering
APEC	Asia-Pacific Economic Cooperation
APFF	Asia-Pacific Financial Forum
API	Application Programming Interface
APIP	Asia-Pacific Infrastructure Partnership
ARFP	Asia Region Funds Passport
ASEAN	Association of South East Asian Nations
Asifma	Asia Securities Industry & Financial Markets Association
BOJ	Bank of Japan
CAP	Cebu Action Plan
CCP	Central Counterparty
CIBM	China Interbank Bond Market
CIS	Collective Investment Scheme
CPMI	Committee on Payments and Market Infrastructures
CPSS	Committee on Payment and Settlement Systems
CSD	Central Securities Depository
CSIF	Cross-border Settlement Infrastructure Forum
FKI	Federation of Korean Industries
FMI	Financial Market Infrastructure
FSA	Financial Services Agency, The Japanese Government
FTT	Financial Transaction Tax
FX	Foreign Exchange
G20	Group of 20
GFC	Global Financial Crisis
GMRA	Global Master Repurchase Agreement
GMSLA	Global Master Securities Lending Agreement
HKEx	Hong Kong Exchanges and Clearing Limited
HQLA	High Quality Liquid Assets
ICMA	International Capital Market Association
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
ISIN	International Securities Identification Number
ISO	International Organization for Standardization

ISDA	International Swaps and Derivatives Association
JGB	Japanese Government Bond
JPX	Japan Exchange Group, Inc.
JSDA	Japan Securities Dealers Association
KYC	Know Your Customer
MiFID	Markets in Financial Instruments Directive
MiFIR	Regulation on Markets in Financial Instruments
MRF	Mutual Recognition for Funds
OECD	Organisation for Economic Cooperation and Development
OTC	Over the Counter
PASLA	Pan Asia Securities Lending Association
PFMI	Principles for Financial Market Infrastructures
RTGS	Real Time Gross Settlement
TR	Trade Repository
SGX	Singapore Exchange Ltd.
SSS	Securities Settlement System
STP	Straight Through Processing

ABOUT THE ASIA-PACIFIC FINANCIAL FORUM (APFF)

The Asia-Pacific Financial Forum (APFF) is a platform for public-private collaboration to accelerate the development of robust and integrated financial markets in the APEC region.

The APFF responds to the need for active collaboration among policy makers, regulators and experts from industry and international and academic organizations to address key issues. These include expanding access to finance for micro-, small and medium enterprises and households in emerging markets; facilitating trade and supply chain finance; creating deep, liquid and integrated capital markets; expanding the region's institutional investor base and its capacity to finance infrastructure and other long-term projects; strengthening financial resilience; and harnessing innovation to build inclusive and efficient financial markets.

The APEC Business Advisory Council (ABAC) proposed the APFF's establishment to the APEC Finance Ministers, who launched the Forum at their 2013 annual meeting in Bali. APFF is one of the three policy initiatives under the APEC Finance Ministers' Process whose management was entrusted by the Ministers to ABAC, together with the Asia-Pacific Forum on Financial Inclusion and the Asia-Pacific Infrastructure Partnership (APIP).

Over 300 experts and senior representatives from more than 150 institutions collaborate in the APFF's undertakings. These institutions include financial services firms (global and regional commercial and investment banks, asset management companies, insurers, pension funds, Fintech firms), legal, accounting and related services firms, business and investor information service providers, international financial industry associations, finance, trade and justice ministries, regulatory authorities, multilateral development banks, international organizations and academic and research institutions.

The work of APFF covers key areas of financial markets that are critical to the development of the region's economy and financial services:

- Credit infrastructure (legal, regulatory and institutional ecosystems for credit information sharing, secured transactions and receivables/warehouse financing)
- Trade and supply chain finance (regulations, technological and innovative solutions to working capital access)
- Insurance and retirement income (retirement income market, infrastructure and capital market investment environment for insurers and pension funds, regulation and accounting standards, disaster risk financing and insurance, micro-insurance)
- Capital markets (repo and derivatives markets, information for capital market investors, regional funds passporting)
- Financial market infrastructure (ecosystem for cross-border portfolio investment, cybersecurity, know-your-customer rules, electronic payments)

In addition, APFF provides a platform for continuous dialogue between industry and the public sector with the involvement of subject matter experts from academic and research institutions and international organizations in areas such as the international financial architecture and financial technology (Fintech).

Link to APFF page: https://www2.abaconline.org//page-content/22613276/Asia-Pacific%20Financial%20Forum

ABOUT APFF'S WORK ON FINANCIAL MARKET INFRASTRUCTURE

Facilitating flows of capital across the region's markets is a key factor for economic growth in the region. The APFF's work on financial market infrastructure and cross-border practices seeks to address the most significant obstacles to cross-border investment flows related to the connectivity platform and standards used in financial market infrastructure (FMI). The central objective is to promote cross-border portfolio investment flows through the development of market practices, standards and platforms that improve the inter-operability, liquidity and connectivity of domestic and cross-border financial markets, and reduce systemic risks.

In 2015, the APEC Finance Ministers incorporated in their Cebu Action Plan (CAP) the development of a roadmap to improve regional financial infrastructure in APEC to help promote capital market depth and liquidity. The CAP calls on economies to participate in APFF workshops and dialogues on capital market development, including the creation of a regional securities investment ecosystem to promote cross-border investment in capital markets.

To advance this work, ABAC invited key industry stakeholders and experts to join the APFF FMI Work Stream. Those who have committed to participate in this process now include representatives of leading global and regional financial institutions, asset management firms, financial technology firms, international brokers and custodians, financial industry associations, stock exchanges, multilateral development institutions, academic and research bodies and information service providers. Through the symposium, APFF is now reaching out to relevant authorities in the region and international regulatory and standard-setting bodies to help develop a roadmap for consideration by APEC Finance Ministers and Finance and Central Bank Deputies.

Asia-Pacific Financial Forum

2017 Progress Report to the APEC Finance Ministers

Appendix 2

A ROADMAP FOR EXPANDING THE COVERAGE OF MICROINSURANCE IN APEC

A Roadmap for Expanding the Coverage of Microinsurance in APEC

1. Financial Inclusion, Inclusive Insurance Markets and Microinsurance

Financial inclusion is defined as a state in which all working age adults have effective access to all types of financial services (i.e. credit, savings, payments, and insurance) from formal providers. "Effective access" involves convenient and responsible service delivery, at a cost affordable to the customer and sustainable for the provider.[1] **For economies with low insurance coverage, provision of effective access to insurance products and services for all is deemed an important component of financial inclusion.**

Inclusive Insurance aims to provide insurance products and services to all including those who are excluded and/or those who are underserved. Microinsurance, on the other hand, is defined as "insurance that is accessed by the low-income population, provided by different entities, but run in accordance with generally accepted practices including the Insurance Core Principles."[2] **Since the excluded and the underserved are typically comprised of the low-income population, inclusive insurance markets include microinsurance which services the low-income earning segment of the population.**

An **inclusive insurance market caters to all including the insurance needs of the low-income population** who are generally characterized by: low education levels and low insurance awareness, low levels of disposable income which are mostly spent on food and shelter, living in rural areas and poorer parts of urbanized areas and generally having negative perceptions about insurance. Because of their inherent profile, they are likely to be less financially sophisticated, more difficult to reach and would need greater protection (i.e. because this segment is more prone to mis-selling and customer abuse). The excluded and underserved are also either not aware or not convinced of the value, relevance and importance of insurance to them. I**nclusive insurance should therefore be able to provide value for money and foster trust between the insured and the insurer.**

To meet the insurance needs of this income segment and provide value for their money, **innovative approaches in product design, coverage, and service delivery should be adopted. Innovations are focused on changes to product features, manner of service delivery and use of alternative delivery channels and vehicles for delivering the products and services.** Because of the inherent profile of the low-income segment, **consumer protection through adoption and implementation of**

[1] IAIS, "Application Paper on Regulation and Supervision supporting Inclusive Insurance Markets,' October, 2012.

[2] IAIS, "Issues Paper on Regulation and Supervision of Microinsurance" June, 2007

conduct of business regulations and supervision[3] is given prime importance in inclusive insurance.

To foster trust between the insured and the insurer, **providers of inclusive insurance products and services should be appropriately regulated and supervised**[4]. Regulations should, however, permit innovative approaches adopted by insurers and ensure ample protection for policyholders. **To encourage insurers to serve the low-income market and motivate informal providers and intermediaries to integrate with the formal insurance sector, regulations that are proportionate to the nature, scale and complexity of risks confronting inclusive insurance should be adopted.** In view of this, **insurance supervisors are given lead roles in the development of inclusive insurance markets.**

Innovative approaches to inclusive insurance require the participation and support of entities that may not be within the jurisdiction of the insurance supervisor. In this regard, **promotion of inclusive insurance requires coordination and cross-sector cooperation between public authorities and agencies (e.g. central banks, revenue authorities, telecommunications regulators, health authorities, and departments of agriculture and social protection) that serve the low-income segment.**

This roadmap identifies specific strategies and priority actions that support the development of microinsurance as catalyst and important element of inclusive insurance markets.

2. STATUS OF MICROINSURANCE (MI) DEVELOPMENT IN SELECTED APEC MEMBER ECONOMIES

The level of MI development among APEC member economies varies widely. Leading the pack in terms of MI coverage are the Philippines, Mexico, Thailand and Peru. Except for Thailand[5], these economies were also noted to have proportionate regulations for insurance products for low-income population (also known as microinsurance)[6]. With relative success in increasing microinsurance coverage, the regulatory environment adopted in these countries can be examples of good practice for countries where microinsurance is still in the early stage of development.

1.1. Market Drivers. The presence of the **appropriate policy and regulatory environment** that encourages the private sector to engage in microinsurance is considered one of the key market drivers for the growth of microinsurance in the three economies mentioned. Aside from the issuance of proportionate regulations

[3] IAIS application paper on Conduct of Business on Inclusive Insurance provides guidance and specific examples and applications on this.

[4] The IAIS application paper on the Regulation and Supervision of Inclusive Insurance states that "…All entities that act as insurers for products directed at supporting inclusive insurance markets should be subject to licensing and supervision."

[5] The Bank of Thailand has commenced the formulation of the Financial Sector Master Plan Phase 3 (FSMPIII), which covers 2016 through 2020. Two of the plan's major aims— the promotion of electronic payments and financial access—are very relevant to the progress of financial inclusion. BOT is still drafting the details and implementation.

[6] https://publications.iadb.org/bitstream/handle/11319/7988/Global-Microscope-2016-The-Enabling-Environment-for-Financial-Inclusion.pdf?sequence=1&isAllowed=y, accessed June 28, 2017

on microinsurance, the presence of large aggregators (e.g. mobile network operators or MNOs and large MFIs) have also largely contributed to the development of the microinsurance industry in Peru, Mexico and the Philippines. This is shown in the chart below. **Partnerships with large aggregators** enables insurance providers to take advantage of the large numbers of clients catered to by the partner aggregator.

Another common denominator among the three economies is the **adoption of a comprehensive strategy on financial inclusion** that shows the government's intent and long-term commitment to provide everyone access to financial services. It also articulates the policy thrusts and strategies that shall be pursued for greater financial inclusion. With clear government direction, the private sector is encouraged to develop products that are tailor fitted to and to provide services that caters to those at the bottom of the pyramid.

Economy	With MI regulation	Large aggregator	MI coverage ratio	Stage of MI development	Population	Poverty ratio	Poverty line	FI strategy
China			0.88%	Growth stage	1.3B	2%	nd	
Indonesia			0.56%	Growth stage	263M	8%	11%	
Malaysia			3.8%	Inception stage	31M	0.28%	nd	
PNG			nd	Inception stage	7M	39%	nd	
Philippines			20%	Maturity stage	103M	13%	25%	
Thailand			14%	Inception stage	68M	0.04%	12%	
Taipei			nd	Growth stage	23M	nd	nd	
Vietnam			0.18%	Inception stage	95M	3%	17%	
Chile			7%	Inception stage	18M	nd	nd	
Mexico			15%	Maturity stage	130M	3%	52%	
Peru			12%	Maturity stage	32M	3%	23%	

Illustration by GIZ RFPI Asia

1.2. Market Potential. While only 3 (Mexico, Peru and Philippines) of the APEC member economies have high microinsurance coverage and a relatively mature[7] regulatory policy environment, other APEC members show potential for microinsurance as evidenced by the following: **presence of a national strategy for financial inclusion, large number of low income people, and to some extent presence of large**

[7] The Landscape of Microinsurance in Asia and Oceania, 2013 Study, generally classified the regulatory policy environment of an economy as 'matured stage' if the MI regulation are functional and institutionalized; the economies that have some form of functional MI guidelines (in the absence of a fully-fledged MI regulations) were classified as 'growth stage'; and the economies that do not have specific MI regulations however MI has started to develop under the regulatory guidelines of conventional insurance or microfinancing were categorized as 'inception stage' http://www.munichre foundation.org/dms/MRS/Documents/Microinsurance/2013MILandscape/2013LandscapeofMIAsiaOceania_fullReport/The%20landscape%20of%20microinsurance%20in%20Asia%20and%20Oceania%202013%20-%20full%20report.pdf, accessed June 29, 2017

aggregators. As shown in the chart, economies with these characteristics are classified as those where microinsurance are in the inception and/or growth stage.

The potential for microinsurance in the other APEC economies could further be harnessed with the **existence and availability of distribution channels with large clientele**. Tapping these channels with new and innovative distribution approaches is pivotal in expanding the microinsurance market. Moreover, with **technology,** efficiencies can be increased and administrative costs associated with distribution of microinsurance can be reduced. With the **growing interest in financial inclusion** and the **availability of technology and new delivery channels,** microinsurance markets are likely to grow in APEC member-economies particularly for those with relatively low insurance coverage and density ratios.

The table below shows the market potential of microinsurance in some of the APEC member economies. **Economies with high population, high poverty ratio, large magnitude of poverty, low insurance density and low MI coverage ratio present huge opportunities for the promotion of inclusive insurance and the development of the microinsurance market.** Moreover, formulation and adoption of a comprehensive financial inclusion strategy shows the economy's keen interest to provide everyone access to all types of financial services, including insurance.

APEC Member Economies	Population (in million) as of 2015*	Poverty Ratio (%) **	No. of poor (in million)	Insurance Density (in USD) ***	MI Coverage Ratio (%)	Financial Inclusion Strategy
Australia	23.8	0.67	0.16	2928		
Brunei Darussalam	0.42	No Data	No Data	No Data	No Data	
Canada	35.8	0.34	0.12	1916		
Chile	17.9	0.92	0.16	631	6.96 (2013)	Yes
People's Republic of China	1371	1.85	25.36	329	0.88 (2012)	Yes
Hongkong	7.3	No Data	No Data	6278		
Indonesia	257.6	8.25	21.25	53	0.56 (2012)	Yes
Japan	127	0.35	0.44	2362		
Republic of Korea	50.6	No Data	No Data	3466	No Data	
Malaysia	30.3	0.28	0.08	467	3.8 (2012)	Yes
Mexico	127	3.04	3.86	193	15.0 (2013)	Yes
New Zealand	4.6	No Data	No Data	989		
Papua New Guinea	7.6	39.31	2.99	No Data	No Data	Yes
Peru	31.4	3.13	0.98	118	11.98 (2011)	Yes
Republic of the Philippines	100.7	13.11	13.20	55****	19.9 (2012)	Yes
Russia	144.1	0.04	0.06	117		
Singapore	5.5	No Data	No Data	4346		
Chinese Taipei	23.4	No Data	No Data	No Data		
Thailand	68	0.04	0.03	219****	14.0 (2012)	Yes
The United States of America	321.4	1.0	3.21	6289		
Vietnam	91.7	3.06	2.81	32****	0.18 (2012)	Yes

Source of basic data:
* http://data.worldbank.org/indicator/SP.POP.TOTL, accessed June 26, 2017
** http://iresearch.worldbank.org/PovcalNet/povOnDemand.aspx accessed July 3, 2017
*** https://stats.oecd.org/Index.aspx?DataSetCode=INSIND, accessed June 26, 2017
**** https://www.tsb.org.tr/images/Documents/sigma_3_2016_en.pdf estimated USD value assuming constant insurance penetration, accessed July 3, 2017

3. THE ROADMAP

3.1. Context: Why the need for a Roadmap

The APEC Finance Ministers adopted the Cebu Action Plan (CAP) in September 2015. The CAP provides a 10-year roadmap for building a connected APEC community that is financially integrated, transparent, and resilient. The roadmap is anchored on four (4) pillars: (i) promoting financial integration; (ii) advancing fiscal reforms and transparency; (iii) enhancing financial resilience; and (iv) accelerating infrastructure development and financing.

Under the pillar of Enhancing Financial Resilience, information and experiences in developing innovations on disaster risk finance and insurance mechanisms (including microinsurance) shall be shared among APEC economies. Innovations in disaster risk finance and insurance mechanisms that shall help reduce the fiscal burden on APEC economies that are exposed to natural disasters shall be implemented and shared among the member economies. In particular, microinsurance can play a key role in disaster risk financing particularly for APEC member economies where underdevelopment of the capital markets constrains the use of financing instruments like natural catastrophe bonds for disaster risk.[8]

Under the Finance Ministers' Process, the APFF was created to bring together institutions, organizations and initiatives geared towards the development and strengthening of the region's financial markets. Recognizing the need to provide access to financial services for all, the APFF includes the promotion of inclusive insurance and the development of microinsurance markets as one of its work streams. Under this work stream, private insurance programs shall be established and promoted through the collaboration and exchange of information and experiences among economies, international development organizations and the private sector. Insurance penetration shall also be deepened through the development of relevant products and regional risk sharing schemes. To accomplish this, a roadmap to facilitate and establish a platform for continuous dialogue between the public and the private sector regarding the expansion of microinsurance coverage in the region shall be developed.

The roadmap identifies specific strategies and priority activities that will promote the adoption and implementation of rules and practices across APEC member economies to support the development of strong, viable, sustainable and inclusive insurance markets in the region.

3.2. Direction: What challenges shall be addressed

As demonstrated by economies with relatively strong MI markets, the

[8] Microinsurance has proven very effective in helping promote recovery, in particular after the devastation caused by Typhoon Haiyan in 2013. In November 2013 Typhoon Haiyan hit the Philippines with the highest wind speeds ever recorded on land. It impacted over 16 million people impacted and displaced nearly 4.1 million. It resulted in over 6,000 lives lost and an estimated USD 700 million in damage to agriculture and infrastructure. Following the typhoon, 126,363 microinsurance claims were made with payments from insurers totaling USD 12 million. The average payment to microinsurance clients was USD 108 (PHP 4,777) which was used for either housing repairs (50 percent) or restarting livelihoods (50 percent). In terms of timing, 27 percent of claims were paid within the first 4 ½ weeks of the typhoon, with 60 percent being paid by March 2014. Source: GIZ

development of MI is primarily anchored on the synergy of key institutions in both the public and the private sectors. A review of the status of microinsurance and the state of inclusive insurance in selected economies identified the following key challenges: i) lack of responsive policies and proportionate regulations supportive of microinsurance; ii) dearth of scalable business models that take advantage of large aggregators and the use of fintech; iii) need for sustainable financial literacy measures that will inform and educate key stakeholders on microinsurance; and iv) inadequate public-private sector collaboration and poor inter-agency cooperation within economies.

As such, this roadmap identifies four key result areas or pillars that will guide APEC member economies in developing an inclusive insurance market. These are:

- Establishment of policies and proportionate regulations for inclusive insurance and microinsurance;
- Adoption and replication of scalable business models using fintech for inclusive insurance;
- Establishment of inter-agency coordination and private-public sector coordination mechanisms supportive of inclusive insurance; and
- Adoption and implementation of financial literacy and consumer protection measures for insurance clients.

3.3. Action Plan: What are the priority initiatives and activities

To promote the development of microinsurance and ensure that everyone has access to insurance, the following action plan shall be adopted.

Priority Initiatives and Activities	Timeline for Delivery		
	Short Term 1 year	Medium Term 2-4 years	Long Term 5-10 years
Pillar 1: Establishment of policies and proportionate regulations for Inclusive insurance and microinsurance			
1. Draw the support of ABAC, the APFF platform, and other international organizations in expanding the MEFIN[9] model to become a regional MI network that will facilitate consultation workshops, dialogues, peer to peer learning and studies among APEC member economies on key issues relevant to the formulation of policies and proportionate regulation for inclusive insurance.			
2. Development of comprehensive strategies for microinsurance development in APEC-member economies that highlight the role of the private sector in MI market development with government providing the relevant policy and regulatory			

[9] The Mutual Exchange Forum for Inclusive Insurance (MEFIN) is a Network of insurance regulatory authorities in Asia working for a peer-to-peer exchange of knowledge and experiences with the insurance industry. More information at www.mefin.org

Priority Initiatives and Activities	Timeline for Delivery		
	Short Term 1 year	Medium Term 2-4 years	Long Term 5-10 years
environment including among others the possibility of providing smart incentives.			
3. Develop model language for the establishment of legal frameworks and formulation of proportionate regulations for microinsurance following IAIS general principles within the context of APEC member economies.			
4. Establish a monitoring and reporting system that tracks MI market development			
5. Development of policy frameworks for: i) establishing risk pools and other DRFI instruments (e.g. provision of incentives, use of technologies) and ii) developing mechanisms for public-private sector cooperation.			
6. Following IAIS principles, develop clear regulatory guidelines on the following: i) informal insurance; ii) complementation between microinsurance and social protection schemes; iii) use of fintech to facilitate the distribution of insurance and claims processing and iv) establishment of risk pools and other disaster risk financing instruments.			
7. Building capacities of the regulator to formulate proportionate regulations for microinsurance			
8. Formulation of regulatory impact studies that will assess relevance and influence of proportionate regulations in expanding the microinsurance market.			
Pillar 2: Adoption of scalable business models using fintech for inclusive insurance			
1. Establish peer-to-peer learning platforms that will facilitate the sharing of information, data and experiences to develop deeper understanding of the supply and demand for insurance of various segments of society (e.g. low-income sector, agriculture, health etc.)			
2. Identify and develop innovative and scalable business models that use technology (MNOs) as a platform to increase outreach.			
3. Adoption of the toolkit developed by the Regulatory Framework Promotion of Pro-poor Insurance Markets in Asia (RFPI Asia) of the GIZ for integrating insurance into DRFI mechanisms to help insurers			

Priority Initiatives and Activities	Timeline for Delivery		
	Short Term 1 year	Medium Term 2-4 years	Long Term 5-10 years
develop appropriate products			
4. Create across the economy a network of large aggregators engaged in the delivery and distribution of insurance to facilitate the adoption of good practices.			
5. Facilitate the collection, use and sharing of big data in the development of relevant insurance products that meet the risk protection needs of various segments of society (e.g. agri. and natcat insurance and the use of weather data and information for index-based insurance products).			
Pillar 3: Establishment of inter-agency coordination, private-public sector coordination mechanism and relevant support infrastructure for inclusive insurance			
1. Establish inter-agency coordination mechanism between the insurance regulatory agency and government agencies engaged in the provision of social protection schemes			
2. Clearly articulate and specify policies and strategies related to the provision of access to insurance in the economy's financial inclusion strategy.			
3. Convene roundtable dialogues and discussions among public and private sector stakeholders engaged in the provision of insurance, particularly for NatCat and agriculture insurance.			
4. Establishment of mechanisms for public-private dialogue in developing products and solutions for responses to and mitigation of disaster risk.			
5. Development of data management support for catastrophic events and establishment of central business registries with hazard mapping and catastrophe coverage for enterprises.			
Pillar 4: Adoption and implementation of financial literacy and consumer protection measures for insurance clients.			
1. Establish code of conduct for insurance providers following the IAIS guidelines on insurance client protection			
2. Adopt domestic strategies that promote insurance literacy and awareness among key stakeholders with			

Priority Initiatives and Activities	Timeline for Delivery		
	Short Term 1 year	Medium Term 2-4 years	Long Term 5-10 years
support of the insurance regulatory agency			
3. Create a platform for sharing experiences in promoting insurance awareness and buy-in of various sectors of the economy (e.g. farmers, fisherfolk, micro and small entrepreneurs).			
4. Promote insurance inclusion and literacy through the Asia-Pacific Financial Inclusion Forum			

The roadmap herewith provides in **Attachment 1 a List of Resources on Microinsurance and Inclusive Insurance**.

3.4. Implementation Strategy and Monitoring

The development of the microinsurance market that results in increased MI awareness and coverage among key stakeholders is a joint undertaking of both the government and the private sector stakeholders such as private insurance providers, large aggregators (MFIs, banks, MNOs), technology providers (fintech). To enjoin private sector participation, it is important for governments in APEC member economies to create the right and appropriate policy and regulatory environment with clear guidelines and policy directions as evidenced by the adoption of specific policy measures and strategies to support MI market development. Because of this, governments of concerned APEC member economies are responsible for facilitating MI development within their respective jurisdiction. Each government, however may identify specific institutional champions for MI development within the economy (e.g. Ministry of Finance, Insurance Regulator, etc.).

Since MI development in the APEC region varies across economies, elements of the MIR may be implemented through any of the following: i) establishment and creation of relevant forums; ii) peer to peer learning activities (e.g. exchange learning and exposure visits among member economies with different levels of MI development); iii) formulation of MI knowledge management platform that shall provide relevant resources for APEC member economies; iv) creation of technical working groups on relevant thematic areas identified within the four pillars; and v) facilitating public-private sector dialogue within or across APEC member economies.

The APEC Business Advisory Council (ABAC), which has been entrusted by the Finance Ministers' Process to manage the APFF, shall monitor the status of implementation of the Microinsurance Roadmap (MIR). Since microinsurance is one of the APFF work streams under the Enhancing Financial Resilience pillar, APFF serves as the right platform for monitoring the MIR. As such, ABAC, as the designated manager of the APFF, shall include the MIR monitoring results in its regular progress report to the APEC senior finance officials and ministers. ABAC may work with development partners within the region and solicit support in the implementation of the identified priority activities for MI development in the region.

Note: This document was prepared for APFF by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Regulatory Framework Promotion of Pro-poor Insurance Markets in Asia (RFPI Asia). The draft took into consideration inputs from the panel of experts during the APFF Workshop on Microinsurance Development Roadmap for Asia-Pacific Emerging Markets held on March 16, 2017 in Hanoi. This draft was circulated for comments by the MIR Drafting Group and by other experts, and was discussed for consultation during the ABAC Financial Inclusion Forum in Hoi An on July 10-11, 2017. The MIR will be subjected to further discussion in the pre-conference session of the 13th International Microinsurance Conference in Lima Peru in November 7, 2017. GIZ RFPI Asia is the lead of the Microinsurance sub-group in the APFF.

The members of the MIR Drafting Group include Mr. Tran Duc Trung and Ms. Tran Thanh Ha from the Ministry of Finance-Insurance Supervisory Authority, Vietnam; Mr. Ferdinand George Florendo from the Insurance Commission, Philippines; Mr. Ellison Pidik, Ms. Elizabeth Gima and Mr. Saliya Ranasinghe from the Bank of Papua New Guinea; Mr. Mochamad Muchlasin from the Financial Services Authority/OJK, Indonesia; Dr. Julius Caesar Parreñas from APFF and Nomura Research Institute, Japan; Dr. Antonis Malagardis and Mr. Dante Oliver Portula from GIZ program RFPI Asia; Ms. Aparna Dalal from ILO Impact Insurance; Mr. Eduardo Moron from APESEG Peru; Mr. Yoga Prasetyo from Allianz Life Indonesia; Mr. Masaaki Nagamura from Tokio Marine Japan; Mr. Dirk Reinhard from Munich Re Foundation; Mr. Christiaan Loots from CENFRI, South Africa; Mr. Michael McCord from MicroInsurance Center, U.S.A.; and Mr. Yves-Daniel Cochand from Vietnam National Reinsurance Corporation.

ATTACHMENT 1 List of Resources on Microinsurance and Inclusive Insurance

Title	Source	Description
Pillar 1: Establishment of policies and proportionate regulations for Inclusive insurance and microinsurance		
The Philippine Approach to Inclusive Insurance Market Development (2017)	Insurance Commission and GIZ-RFPI Asia. http://www.microinsurancenetwork.org/groups/philippine-approach-inclusive-insurance-market-development	The presentation of this case study is structured according to three regimes of microinsurance policy and regulatory reforms in the Philippines during a span of 9 years (2006-2015). The study also offers a background of the Philippines, an overview of financial landscape including insurance and microinsurance, conclusions and lessons.
Microinsurance Regulatory Framework (Philippines)	Technical Working Group organized by the Department of Finance, Philippines http://www.inclusiveinsuranceasia.com/docs/Regulatory%20Framework%20for%20Microinsurance.pdf	The framework outlines the government's policy thrusts and direction for the establishment of a policy and regulatory environment that will encourage, enhance and facilitate the safe and sound provision of microinsurance products and services by the private sector. It will also identify and promote a system that will protect the rights and privileges of those who are insured.
Microinsurance Strategy (Philippines)	Technical Working Group organized by the Department of Finance, Philippines http://www.inclusiveinsuranceasia.com/docs/National%20Strategy%20for%20Microinsurance.pdf	The Microinsurance Strategy defines the objective, the roles of the various stakeholders and the key strategies to be pursued in enhancing access to insurance by the poor. It discusses strategies to encourage complementation of social health insurance by the private sector. It provides directions towards mainstreaming informal insurance and insurance, like activities and the promotion of public awareness and financial

Title	Source	Description
		literacy.
Enhanced Microinsurance Regulatory Framework (Philippines)	Technical Working Group organized by the Department of Finance, Philippines http://inclusiveinsuranceasia.com/docs/Enhanced-MI-Regulatory-Framework-Philippines.pdf	The enhanced framework provides an improved policy and regulatory environment that supplements the existing 2010 Regulatory Framework on Microinsurance.
Proportionate Regulatory Frameworks in Inclusive Insurance: Lessons from a Decade of Microinsurance Regulation (2016)	Access to Insurance Initiative (A2ii) hosted by GIZ https://a2ii.org/en/report/regulation-and-supervision/proportionate-regulatory-frameworks-inclusive-insurance-lessons	The report highlights the discussions at an Expert Symposium organized in Washington in December 2014. In addition, it includes lessons learnt from the A2ii's experience working with insurance supervisors on the ground. It also marks the 10-year milestone of the IAIS' engagement in financial inclusion.
Application Paper on Regulation and Supervision supporting Inclusive Insurance Markets (2012)	International Association of Insurance Supervisors https://www.iaisweb.org/page/supervisory-material/application-papers	The International Association of Insurance Supervisors (IAIS), through the Insurance Core Principles (ICPs), provides a globally accepted framework for the supervision of the insurance sector. This paper provides more specific information on how the ICPs can be implemented consistent with efforts to enhance the level of inclusiveness of insurance markets.
Issues Paper on the Regulation and Supervision of Mutuals, Cooperatives and other Community-based Organisations in increasing access to Insurance Markets (October 2010)	International Association of Insurance Supervisors https://www.iaisweb.org/page/supervisory-material/issues-papers	Recommended as a follow-up from the work of the Issues in Regulation and Supervision of Microinsurance (June 2007) paper, this paper discussed the key elements of such organizations that are relevant to considering the approach to their regulation and supervision.
Issues Paper in Regulation and Supervision of Microinsurance (June 2007)	International Association of Insurance Supervisors https://www.iaisweb.org/page/supervisory-material/issues-papers	This paper discussed regulation and supervision as well as providing some background to microinsurance concepts.

Title	Source	Description
Issues in Regulation and Supervision of Takaful (Islamic Insurance) (2006)	Islamic Financial Services Board and the International Association of Insurance Supervisors http://www.microinsurancecentre.org/resources/documents/business-case-for-microinsurance/business-models-community-based-mutual-takaful-commercial/issues-in-regulation-and-supervision-of-takaful-islamic-insurance.html	This document reviews Takaful Insurance against the IAIS Core Principles to identify areas where the Core Principles might require adjustment or additional considerations.
Pillar 2: Adoption of scalable business models using fintech for inclusive insurance		
BIMA Factsheet	BIMA http://www.bimamobile.com/assets/BIMA-FACTSHEET-FINAL-23.07.15-.pdf	BIMA is a provider of mobile-delivered insurance in emerging markets. They combine mobile technology with an agent-led approach to customer education to widen access to insurance.
Report of the 6th A2ii IAIS Consultation Call Successful Business Models in Microinsurance (2014)	Access to Insurance Initiative hosted by GIZ https://a2ii.org/sites/default/files/field/uploads/report_6th_consultation_call_sept_2014.pdf	This report outlines a consultation call focused on successful business models in microinsurance. Two calls attended by 62 participants from across Asia, Africa, Latin America and North America were held.
Microinsurance distribution channels: Insights for insurers (2014)	Microinsurance Innovation Facility http://www.impactinsurance.org/publications/mp33	This brief synthesises experiences in distributing microinsurance. It outlines key strengths and weaknesses of each channel for insurers.
New Sales and Distribution Models in Mobile Financial Services (2013)	MicroInsurance Centre http://www.microsave.net/files/pdf/RP161_FSP_Sales_in_MM_World_Kendall_et_al.pdf	This paper shows some lessons from institutions that use agents and mobile platforms as fully functional channels to distribute products and provide practical guidance to providers.
Beyond Sales: New Frontier in Microinsurance Distribution Lesson for the Next Wave of Microinsurance Distribution Innovation (2011)	Microinsurance Innovation Facility http://www.ilo.org/public/english/employment/mifacility/download/mp8beyo.pdf	This paper considers the experiences of a group of leading microinsurance innovators and, in particular, the role that new distribution approaches has played.

Title	Source	Description
Technology for Microinsurance Scoping Study Final Report (2008)	MicroInsurance Centre http://www.microinsurancecentre.org/resources/documents/products/property/technology-for-microinsurance-scoping-study-final-report.html	The report identifies a number of representative technologies and then positions them relative to each other.
Pillar 3: Establishment of inter-agency coordination, private-public sector coordination mechanism and relevant support infrastructure for inclusive insurance		
Microinsurance Network Annual Report 2016 (2017)	Microinsurance Network http://www.microinsurancenetwork.org/groups/microinsurance-network-annual-report-2016	The Microinsurance Network's Annual Report 2016 provides a brief outline of its key achievements, activities, publications and events in 2016. The report also provides an overview on the Network's membership, and the composition of its Board of Directors and Secretariat team. The report closes with a brief sneak preview of the Network's activities in 2017.
9th Consultative Forum Briefing Note: Exploring challenges in scaling up insurance as a disaster resilience strategy for smallholder farmers (2017)	Microinsurance Network http://www.microinsurancenetwork.org/groups/9th-consultative-forum-briefing-note-exploring-challenges-scaling-insurance-disaster	The 9th Consultative Forum which took place in Singapore on March 14, 2017 brought together high-ranking representatives from the public sector, supervisory authorities and the insurance industry to discuss “Exploring challenges in scaling up insurance as a disaster resilience strategy for smallholder farmers”. This Forum Briefing Note provides a summary of the key takeaways from the event and outlines recommendations for action for the industry and regulators.
Multi-Stakeholder Dialogue on Microinsurance (2017)	GIZ and Securities and Exchange Commission of Pakistan. http://www.microinsurancenetwork.org/groups/multi-stakeholder-dialogue-microinsurance	This report shows the highlights of the Multi-Stakeholder Dialogue on Microinsurance in Pakistan in August 30-31, 2016.
Pillar 4: Adoption and implementation of financial literacy and consumer protection measures for insurance clients.		

Title	Source	Description
A Roadmap to Financial Literacy on Microinsurance (Philippines)	Technical Working Group organized by the Department of Finance, Philippines http://www.inclusiveinsuranceasia.com/docs/Roadmap%20to%20Financial%20Literacy%20on%20Microinsurance.pdf	The roadmap spells out the key strategies and measures to be adopted for institutionalizing financial literacy in microinsurance. Key principles, guidelines, and specific directions on how to promote and change behavior favorably for the adoption of microinsurance among the low-income sector is also provided for.
Issues Paper on Conduct of Business in Inclusive Insurance (2015)	International Association of Insurance Supervisors (IAIS), in cooperation with the Access to Insurance Initiative (a2ii) and the Microinsurance Network. http://www.microinsurancenetwork.org/groups/issues-paper-conduct-business-inclusive-insurance	This Issues Paper on Conduct of Business in Inclusive Insurance is about the fair treatment of customers in inclusive insurance markets. The paper gives an overview of the issues in respect of conduct of business in inclusive insurance markets that affect the extent to which customers are treated fairly, both before a contract is entered into and through to the point at which all obligations under a contract have been satisfied.
Microinsurance Awareness Pilot Campaign Findings and Recommendations (2015)	Ghana Insurers' Association (GIA), National Insurance Commission (NIC), GIZ https://www.microfinancegateway.org/library/microinsurance-awareness-pilot-campaign-findings-and-recommendations	This report summarises the activities of the microinsurance awareness pilot campaign in Ghana, the research undertaken to evaluate it, and the results of that research.
Report of Insurance Awareness Campaign (2011)	Insurance Regulatory and Development Authority http://www.microinsurancenetwork.org/groups/report-insurance-awareness-campaign	The report, based on a survey of 30,200 respondents over India, explores underlying trends in customer awareness levels and their implications on insurers.

Asia-Pacific Financial Forum

2017 Progress Report to the APEC Finance Ministers

Appendix 3

LIST OF ABBREVIATIONS

List of Abbreviations

ABAC	APEC Business Advisory Council
ABMF	ASEAN+3 Bond Market Forum
ABMI	Asian Bond Markets Initiative
ADB	Asian Development Bank
ADBI	Asian Development Bank Institute
AEC	ASEAN Economic Community
AFSF	Asia Funds Standardization Forum
AIC	ASEAN Insurance Council
AMF	Autorité des Marchés Financière
AMBIF	ASEAN+3 Multi-Currency Bond Issuance Framework
AML	Anti-Money Laundering
AMRO	ASEAN+3 Macroeconomic Research Office
ANDREWS	ASEAN Natural Disasters Research Works Sharing
APCC	Asia-Pacific Credit Coalition
APEC	Asia-Pacific Economic Cooperation
APFF	Asia-Pacific Financial Forum
API	Application Programming Interface
APIC	Asia-Pacific Investors Cooperation
APIP	Asia-Pacific Infrastructure Partnership
ARFP	Asia Region Funds Passport
ASEAN	Association of South East Asian Nations
ASIFMA	Asia Securities Industry & Financial Markets Association
ASSAL	Asociación de Supervisores de Seguros de Latinoamérica
AUM	Assets under Management
BCBS	Basel Committee on Banking Supervision
BOJ	Bank of Japan
CAP	Cebu Action Plan
CCP	Central Counterparty
CCP	Central counterparty
CIBM	China Interbank Bond Market
CIC	Credit Information Corporation
CIS	Collective Investment Scheme
CNSF	Comisión Nacional de Seguros y Fianzas
CPMI	Committee on Payments and Market Infrastructures
CPSS	Committee on Payment and Settlement Systems
CRR	Cash Reserve Ratio
CRS	Common Reporting Standard
CRSP	Credit Reporting Service Provider
CSD	Central Securities Depository
CSIF	Cross-Border Settlement Infrastructure Forum
CSM	Contractual Service Margin
DLT	Distributed Ledger Technology
DRFI	Disaster risk Financing and Insurance
EPF	Employees' Provident Fund
ESMA	European Securities and Markets Authority
EU	European Union
FAIR	Forum for Asian Insolvency Reform
FASB	Financial Accounting Standards Board

FSA	Financial Services Agency (Japan)
FATCA	Foreign Account Tax Compliance Act
FCI	Factors Chain International
FIDES	Federación Interamericana de Empresas de Seguros
FIDN	Financial Infrastructure Development Network
FKI	Federation of Korean Industries
FMI	Financial market infrastructure
FMP	Finance Ministers' Process
FRTB	Fundamental Review of Trading Book
FTT	Financial Transaction Tax
FX	Foreign exchange
G-20	Group of 20
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GIH	Global Infrastructure Hub
GIZ	Gesellschaft für Internationale Zusammenarbeit
GMRA	Global Master Repurchase Agreement
GMSLA	Global Master Securities Lending Agreement
HKEx	Hong Kong Exchange and Clearing Limited
HKMC	Hong Kong Mortgage Component
HQLA	High quality liquid asset
I3P	Islamic Infrastructure Investment Platform
IAIS	International Association of Insurance Supervisors
IASB	International Accounting Standards Board
ICMA	International Capital Market Association
ICS	Insurance Capital Standards
IDF	Insurance Development Forum
IFC	International Finance Corporation
IFG	International Factors Group
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
ISDA	International Swaps and Derivatives Association
ISIN	International Securities Identification Number
ISO	International Organization for Standardization
IoT	Internet of Things
JGB	Japanese Government Bond
JPX	Japan Exchange Group, Inc.
JSDA	Japan Securities Dealers Association
KYC	Know Your Customer
LCY	Local currency
LVPS	Large Value Payment System
MFI	Microfinance Institution
MI	Microinsurance
MiFID	Markets in Financial Instruments Directive
MiFIR	Markets in Financial Instruments Regulation
MNO	Mobile Network Operator
MOU	Memorandum of Understanding
MRF	Mutual Recognition of Funds
MSMEs	Micro-, Small and Medium Enterprises
NAFMII	National Association of Financial Market Institutional Investors

NAIC	National Association of Insurance Commissioners
NAV	Net Asset Value
NSFR	Net Stable Funding Ratio
OCI	Other Comprehensive Income
OECD	Organization for Economic Cooperation and Development
OJK	Otoritas Jasa Keuangan/Financial Services Authority (Indonesia)
OLIS	Oriental Life Insurance Seminar
OTC	Over the counter
P2P	Peer-to-peer
PASLA	Pan-Asian Securities Lending Association
PBOC	People’s Bank of China
PE	Permanent establishment
PECC	Pacific Economic Cooperation Forum
PERC	Policy and Economic Research Council
PFMI	Principles for Financial Market Infrastructures
PNG	Papua New Guinea
PPP	Public-private partnership
RAS	Retirement Advisory Service
RTGS	Real Time Gross Settlement
SEACEN	South East Asian Central Banks
SELI	Strengthening Economic Legal Infrastructure
SET	Stock Exchange of Thailand
SFC	Securities and Futures Commission
SGX	Singapore Exchange Ltd.
SIDA	Swedish International Development Cooperation Agency
SSS	Securities Settlement System
STP	Straight Through Processing
STR	Secured Transactions Reform
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TR	Trade Repository
UCITS	Undertakings for the Collective Investment of Transferable Securities
UNCITRAL	United Nations Commission on International Trade Law
USAID	United States Agency for International Aid
WB	World Bank
WEF	World Economic Forum

Asia-Pacific Financial Forum

2017 Progress Report to the APEC Finance Ministers

Appendix 4

ABOUT APFF

About APFF

The Asia-Pacific Financial Forum (APFF) is a platform for public-private collaboration to accelerate the development of robust and integrated financial markets in the APEC region.

The APFF responds to the need for active collaboration among policy makers, regulators and experts from industry and international and academic organizations to address key issues. These include expanding access to finance for micro-, small and medium enterprises and households in emerging markets; facilitating trade and supply chain finance; creating deep, liquid and integrated capital markets; expanding the region's institutional investor base and its capacity to finance infrastructure and other long-term projects; strengthening financial resilience; and harnessing innovation to build inclusive and efficient financial markets.

The APEC Business Advisory Council (ABAC) proposed the APFF's establishment to the APEC Finance Ministers, who launched the Forum at their 2013 annual meeting in Bali. APFF is one of the three policy initiatives under the APEC Finance Ministers' Process whose management was entrusted by the Ministers to ABAC, together with the Asia-Pacific Forum on Financial Inclusion and the Asia-Pacific Infrastructure Partnership (APIP).

Over 400 experts and senior representatives from more than 150 institutions collaborate in the APFF's undertakings. These institutions include financial services firms (global and regional commercial and investment banks, asset management companies, insurers, pension funds, Fintech firms), legal, accounting and related services firms, business and investor information service providers, international financial industry associations, finance, trade and justice ministries, regulatory authorities, multilateral development banks, international organizations and academic and research institutions.

The work of APFF covers key areas of financial markets that are critical to the development of the region's economy and financial services:

- Credit infrastructure (legal, regulatory and institutional ecosystems for credit information sharing, secured transactions and receivables/warehouse financing)
- Trade and supply chain finance (regulations, technological and innovative solutions to working capital access)
- Insurance and retirement income (retirement income market, infrastructure and capital market investment environment for insurers and pension funds, regulation and accounting standards, disaster risk financing and insurance, microinsurance)
- Capital markets (repo and derivatives markets, information for capital market investors, regional funds passporting)
- Financial market infrastructure (ecosystem for cross-border portfolio investment, cybersecurity, know-your-customer rules, electronic payments)

In addition, APFF provides a platform for continuous dialogue between industry and the public sector with the involvement of subject matter experts from academic and research institutions and international organizations in areas such as the international financial architecture and financial technology (Fintech).

Asia-Pacific Economic Cooperation

THE ADVISORY GROUP ON APEC FINANCIAL SYSTEM CAPACITY-BUILDING

A Public-Private Sector Initiative

2017 ABAC Report to APEC Finance Ministers

ANNEX C

Advisory Group on APEC Financial System Capacity Building

2017 Report on Capacity Building Measures to Strengthen and Develop Financial Systems

28 July 2017

Advisory Group on APEC Financial System Capacity Building

2017 REPORT ON CAPACITY BUILDING MEASURES TO STRENGTHEN AND DEVELOP FINANCIAL SYSTEMS

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THE ADVISORY GROUP ON APEC FINANCIAL SYSTEM CAPACITY BUILDING

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Summary of Recommendations

The Advisory Group on APEC Financial System Capacity Building has been focused on promoting structural reforms as a way to ensure sustained, inclusive and balanced growth in the region. Recognizing the importance of these reforms, APEC Finance Ministers launched the Cebu Action Plan in 2015 and called for greater public-private collaboration to advance its implementation through the Asia-Pacific Financial Forum (APFF), the Asia-Pacific Infrastructure Partnership (APIP), the Asia-Pacific Forum on Financial Inclusion and the work of other international organizations participating in the Finance Ministers' Process. This report provides an update on the progress of these and related initiatives.

DEVELOPING FINANCIAL MARKETS TO SUPPORT SUSTAINED, BALANCED AND INCLUSIVE GROWTH

The APFF is an initiative that is focused on promoting the contributions of the financial industry and financial markets to the achievement of sustained, balanced and inclusive growth, by serving as platform through which the public and the private sectors can collaborate toward this end. Since its establishment, various public and private sector stakeholders, including the international organizations participating in the FMP and some finance ministries, central banks and financial regulatory agencies, have come together to jointly progress a number of initiatives under the Cebu Action Plan.

Recommendations

- ***Encourage relevant officials and regulators to collaborate with APFF's capacity building activities in:***
  - ***promoting deep and liquid bond, repo and derivatives markets;***
  - ***modernizing credit information, valuation, secured transactions and insolvency systems;***
  - ***developing pilot programs for cross-border supply chain financing; and***
  - ***expanding long-term investors' roles in infrastructure development.***
- ***Support APFF's efforts to develop a regional platform for public-private dialogue on harnessing fintech to create inclusive, sound and efficient financial systems.***
- ***Encourage senior finance officials to work with APFF in 2018 to finalize the roadmaps envisioned in the CAP for:***
  - ***developing the region's financial market infrastructure;***
  - ***expanding the coverage of microinsurance; and***
  - ***promoting greater private sector participation in disaster risk financing and insurance.***
- ***Encourage more economies to host discussions on the Asia Region Funds Passport***

(ARFP) where APFF can convene experts from regulatory, industry, multilateral and academic institutions.

- ***Encourage relevant authorities to collaborate with APFF in finalizing in 2018 a work program for the Islamic Infrastructure Investment Platform (I3P) to help expand cross-border investment by Islamic financial institutions in infrastructure.***

CREATING A ROBUST PIPELINE OF BANKABLE INFRASTRUCTURE PROJECTS

Throughout the years, the APEC FMP has undertaken various activities to promote the development of a pipeline of bankable infrastructure PPP projects in the region. With the development of platforms and tool kits that can be harnessed in assisting economies to this end, the key issue looking ahead is how this concentration of expertise and resources can be harnessed to achieve tangible results in terms of concrete PPP projects being brought to the market in developing economies and a robust pipeline of such projects being created. This year, APIP and APFF stakeholders initiated a new approach based on a program of dialogues with selected economies targeting a specific sector where there is an urgent need for infrastructure and where successful initial projects can serve as models for the design of similar projects that can be the beginnings of a future project pipeline.

Recommendation

- ***Support sector-specific dialogues and capacity building activities in interested economies that seek to leverage the expertise in international and specialized organizations like the ADB, OECD, World Bank Group, Global Infrastructure Hub, Sustainable Infrastructure Foundation and the private sector through ABAC, APIP and APFF, starting with PPPs in waste management. These activities should aim for helping relevant agencies launch successful initial projects that can serve as models for similar ones and catalyze the creation of a pipeline of bankable PPP projects in the sector.***

EXPANDING ACCESS TO FINANCE

The Asia-Pacific Forum on Financial Inclusion is a policy initiative under the APEC Finance Ministers Process that has been entrusted to the APEC Business Advisory Council (ABAC). While the Forum provided an opportunity for stakeholders to review the current trends, recent achievements, ongoing challenges and opportunities relative to financial inclusion in the region; its primary purpose was to provide priority recommendations to policy makers and regulators to enable greater financial inclusion throughout the APEC region. The agenda for the 2017 ABAC Asia-Pacific Forum on Financial Inclusion provided a platform to facilitate discussions amongst nearly 200 key financial inclusion stakeholders to develop recommendations in a collaborative forum, for policy reform and strengthening. The full details of these recommendations will be included in the Forum report which will be disseminated to APEC stakeholders in October 2017.

Recommendation

- ***The Advisory Group encourages relevant authorities in APEC member economies to study the report and conclusions of the 2017 Asia-Pacific Forum on Financial Inclusion and adopt or implement its recommendations as applicable to their***

respective markets.

IMPROVING VALUATION PRACTICES IN APEC

In the light of the impact of valuation on a wide range of economic and business areas, there is a need to ensure that the valuation profession has the capacity to undertake its work in a professional and credible manner that gives a central role to standards, ethics, independence and objectivity, competence and transparency. The key components of such a framework include the availability of a robust regulatory regime appropriate across all asset classes, the presence of strong professional organizations, access to reliable information, availability of education and training and the profession's adherence to widely accepted valuation and professional practice standards, followed by appropriate and visible enforcement.

Recommendation:

- ***The Advisory Group encourages APEC member economies to host discussions with ABAC, the International Valuation Standards Council (IVSC), valuation professional organizations (VPOs), experts from industry and other relevant bodies on improving the quality of valuation practices and professionals.***

THE ADVISORY GROUP ON APEC FINANCIAL SYSTEM CAPACITY BUILDING

2017 REPORT ON CAPACITY BUILDING MEASURES TO STRENGTHEN AND DEVELOP FINANCIAL SYSTEMS

INTRODUCTION

Since its establishment in 2003, the Advisory Group on APEC Financial System Capacity Building has been focused on promoting structural reforms as a way to ensure sustained, inclusive and balanced growth in the region. Especially since the Global Financial Crisis (GFC), its reports have repeatedly cautioned against overreliance on monetary and fiscal stimulus and advocated the rebalancing of economic growth strategies in Asian emerging markets away from a heavy emphasis on exports and savings toward a greater role for domestic consumption while developed economies focus on repairing government and household balance sheets. Such a rebalancing not only would have re-launched developed and developing economies on a more sustainable growth path; it would also have helped rebalance trade across the Pacific.

In its 2009 report, the Advisory Group made the following observation:

> *One key issue that has emerged from the crisis is how to enhance the capacity of the region to achieve economic recovery. Over the years, developing Asia-Pacific economies have grown rapidly through an export-oriented strategy that was supported by robust consumption growth in advanced markets, particularly in North America. Expansionary fiscal and monetary measures have temporarily blunted the adverse impact of the crisis, but as these measures are not meant to be sustained over a long period, full economic recovery will hinge on the re-emergence of demand from households and firms.*
>
> *The capacity of advanced economies to soon revert back to their previous roles as principal providers of final demand for the global economy is now in doubt, with consumers expected to undergo a long process of de-leveraging to rebuild savings, while the corporate sector re-sizes and restructures in the face of changing patterns of demand and banks repair their balance sheets. Continuing growth of unemployment amidst uncertainty over the sustained recovery of asset prices over the coming months will likely exacerbate these trends. Given these prospects, developing economies will need to seriously re-examine their strategies, as the export-driven growth model becomes less viable under current conditions.*
>
> *There is considerable potential for inducing the growth of domestic demand in developing economies, particularly in Asia, where there is a considerable pool of savings and financial systems remain relatively healthy. In many of these economies, however, domestic consumption and investment are constrained by various factors. Unlocking the region's huge savings will require reforms and capacity-building in a*

number of areas to broaden the economic base, expand consumer finance, facilitate the growth of infrastructure and mobilize domestic savings to provide more local-currency funding for public projects and corporate expansion. The success of this undertaking will not only promote recovery, but will also help address the imbalances that have led to trade frictions in the region and provide a more sustainable basis for global economic growth in the future.

The insufficiency of progress toward this rebalancing has resulted, on the one hand, in the weakest recovery of developed economies from a crisis in modern times even as considerably elevated public sector debt levels stand to dampen their future growth prospects. Export-dependent developing economies, on the other hand, have seen their growth levels come down dramatically from the high rates of previous decades and found themselves outperformed by other developing economies with more balanced compositions of consumption, investment and export growth. Persistent trade imbalances have become a target for critics of globalization and are now at the center of a political debate that shifted toward protectionism in 2016, making the task of rebalancing even more critical for ensuring continued public support for APEC's vision of free and open trade and investment.

Nevertheless, the APEC Finance Ministers have clearly recognized the importance of rebalancing in the wake of the GFC, with their calls for sustained, balanced and inclusive growth, their endorsement of the Kyoto Report on Growth Strategy and Finance, and the launch of the Cebu Action Plan. The work done under the Finance Ministers' Process through these years have focused on initiatives that would create a broader base for economic growth in developing economies.

One area where the Advisory Group has advocated action since its establishment is the development of capital markets, especially local currency bond markets, which play critical roles in financial stability, the funding of long-term projects such as infrastructure, supporting lenders through asset securitization in making more credit available to MSMEs, and increasing investment opportunities for institutional and retail investors. Various conferences convened by ABAC in collaboration with Advisory Group stakeholders have identified the lack of depth and liquidity of bond markets as the main challenge, and measures to address this, including market participants' access to hedging instruments; increasing the diversity of issuers and investors; enhancing the availability, quality and timeliness of information; developing the clearing, settlement, payment and custody systems; and promoting cross-border portfolio investment.

Another area is the financial infrastructure that enables bank and non-bank lenders to provide more credit to MSMEs. This includes credit information systems, which allow transaction data of individuals to be collected, ideally from a wide range of sources including financial institutions and utilities companies, and transformed into information that lenders can use to serve the needs of business owners, especially those who do not have physical collateral. It also includes secured transactions and insolvency ecosystems that should provide a legal framework, institutions such as collateral registries and supporting services that give lenders sufficient confidence to accept a wide range of assets from inventories and accounts receivable to intellectual property as collateral. In addition, the emergence of advanced technology in finance (fintech) has opened up new opportunities for MSMEs to access new sources of financing.

Infrastructure development is also a key element in economic rebalancing, as it increases connectivity and efficiency within the economy, expanding access to opportunities in global trade and value chains for MSMEs, particularly those in geographically peripheral and rural areas far from traditional centers of business activities. While there is no lack of funding for infrastructure projects in the private sector, however, there is a lack of bankable projects that can attract private sector funding, due to insufficient capacity in many developing economies' public sector to bring such bankable projects to the market.

Addressing this challenge would require a combination of legal and policy reforms that would reduce political, regulatory, demand and other risks that investors typically face in less developed markets, providing mechanisms that would compensate for those risks, and additional financing that would make private investment in a project commercially viable. Given the complexity of infrastructure financing, the limited translatability of models across sectors and across economies and the political sensitivity of infrastructure, capacity building initiatives to help public sector officials gain expertise in designing bankable projects across sectors will require intensive and combined efforts from multilateral and specialized institutions and the private sector.

Broadening developing economies' entrepreneurial and consumer base will require expanding access to finance to low-income individuals, households and micro-entrepreneurs, a still substantial number of which are unbanked or unreached by formal financial services. Developing financial inclusion strategies that include providing the enabling policy and regulatory environment, harnessing technology, collaborating with the private sector, and ensuring consumer protection and education needs to be promoted in the region through capacity building and the sharing of knowledge and experiences.

While access to credit is important for promoting grassroots enterprises that create jobs and increase incomes, as well as enabling low-income households to invest in education and basic needs such as housing and health, financial inclusion strategies should also address access to other financial services, including savings, investments, insurance and pensions. Insurance and pensions play an important role in the growth of domestic consumption, since lack of access to the safety net they provide is a major factor that compels people to forego consumption in favor of savings.

These are issues to which ABAC and other stakeholders from the private and public sectors as well as international and multilateral organizations in the Advisory Group have called the attention of policy makers and regulators through various dialogues, conferences and consultations and through its annual reports to APEC Finance Ministers over the years. The Finance Ministers have responded very positively to these reports by creating official policy initiatives providing platforms for public-private collaboration in advancing solutions to challenges – the Asia-Pacific Forum on Financial Inclusion in 2010, the Asia-Pacific Infrastructure Partnership in 2011, and the Asia-Pacific Financial

Forum in 2013. As part of the APEC Finance Ministers' Process, these initiatives have been given key roles in the implementation of the Cebu Action Plan. ABAC is managing these initiatives in collaboration with various stakeholders through the Advisory Group. This report provides an update on the progress of these and related initiatives.

I. Developing Financial Markets to Support Sustained, Balanced and Inclusive Growth

The APFF is an initiative that is focused on promoting the contributions of the financial industry and financial markets to the achievement of sustained, balanced and inclusive growth, by serving as platform through which the public and the private sectors can collaborate toward this end. Since its establishment, various public and private sector stakeholders, including the international organizations participating in the FMP and some finance ministries, central banks and financial regulatory agencies, have come together to jointly progress a number of initiatives under the Cebu Action Plan. These include work that has been started in previous years in the following areas:

- Collaboration in capacity building to assist interested economies in developing their financial infrastructure, in particular credit information, secured transactions and insolvency systems to facilitate and expand MSMEs' access to credit;

- Regional workshops to help relevant agencies, financial institutions and global supply chain participants identify barriers to trade and supply chain finance, innovative solutions to address these challenges and opportunities for collaboration;

- Regional public-private sector dialogues on advanced technology in finance (fintech), particularly in the areas of lending, payments and regulatory technology (regtech) to promote collaboration among regulators, industry participants and experts in developing balanced regulatory approaches;

- Workshops to assist relevant stakeholders in interested economies, including regulators and industry participants, in identifying and addressing legal, policy, regulatory and market issues to enable the effective use of repurchase agreements (repos) and over the counter (OTC) derivatives for the purpose of improving the depth and liquidity of bond markets;

- Collaboration with regulators and industry to assist in progressing and increasing membership in the Asia Region Funds Passport;

- Advice to regulators of interested economies in implementing the APFF self-assessment templates to improve availability and quality of information for capital market investors in three key areas: issuer disclosure, bond market data and investor rights in insolvency;

- Development of recommendations for expanding the role of the pension fund and insurance industries as long-term investors in infrastructure projects and capital markets;

- Discussions and conferences to address policy and practical barriers to the expansion of cross-border investment in infrastructure by Islamic financial institutions; and

- International conferences to discuss broader global and regional issues and their implications for financial market development and integration in the Asia-Pacific region.

This year, APFF commenced work on two initiatives mandated by the Cebu Action Plan:

- The drafting of a proposed roadmap for the development of the region's financial market infrastructure; and

- The drafting of a proposed roadmap for expanding the coverage of microinsurance in developing Asia-Pacific economies.

Finally, the APFF is currently undertaking preparations to start the drafting of a roadmap for expanding the private sector's participation in disaster risk financing and insurance.

Details are contained in a separate document, the *Asia-Pacific Financial Forum 2017 Progress Report to the APEC Finance Ministers*, which is annexed to the ABAC Report to Finance Ministers together with this Advisory Group Report. By way of providing a short summary for this report, the APFF Progress Report highlights the growing interest of APEC member economies to engage with the private sector in a wide variety of areas and confirms the importance of the CAP to the region's economic development. This year, the APFF made progress in starting new collaborative activities with various economies, such as in capital market development (with China and Thailand) and credit information and secured transactions (with Vietnam). The APFF also commenced work on two deliverables under the CAP – the roadmap for developing financial market infrastructure in the Asia-Pacific region and the roadmap for expanding the coverage of microinsurance, both of which are appended to this report.

Progress also continues to be made in the ongoing work on credit information and secured transactions work in the Philippines and Thailand, advancing a pilot project on cross-border sharing of credit information in the Mekong region, the development of a platform for public-private sector dialogue on fintech, support for the Asia Region Funds Passport, creating a platform for enabling Islamic financial institutions to expand cross-border investment in infrastructure, expanding the role of pension funds and insurance firms in infrastructure, and promoting a more active private sector participation in disaster risk financing and insurance.

The Advisory Group echoes the APFF Progress Report's recommendations to the APEC Finance Ministers to help advance the implementation of the CAP in coming years, which are as follows:

Recommendations

- ***Encourage relevant officials and regulators to collaborate with APFF's capacity building activities in:***
  - ***promoting deep and liquid bond, repo and derivatives markets;***
  - ***modernizing credit information, valuation, secured transactions and insolvency systems;***

- *developing pilot programs for cross-border supply chain financing; and*
- *expanding long-term investors' roles in infrastructure development.*

- ***Support APFF's efforts to develop a regional platform for public-private dialogue on harnessing fintech to create inclusive, sound and efficient financial systems.***

- ***Encourage senior finance officials to work with APFF in 2018 to finalize the roadmaps envisioned in the CAP for:***
  - ***developing the region's financial market infrastructure;***
  - ***expanding the coverage of microinsurance; and***
  - ***promoting greater private sector participation in disaster risk financing and insurance.***

- ***Encourage more economies to host discussions on the Asia Region Funds Passport (ARFP) where APFF can convene experts from regulatory, industry, multilateral and academic institutions.***

- ***Encourage relevant authorities to collaborate with APFF in finalizing in 2018 a work program for the Islamic Infrastructure Investment Platform (I3P) to help expand cross-border investment by Islamic financial institutions in infrastructure.***

II. Creating a Robust Pipeline of Bankable Infrastructure Projects

Throughout the years, the APEC FMP has undertaken various activities to promote the development of a pipeline of bankable infrastructure PPP projects in the region.[1] This work

[1] Recent activities under the leadership of past years' FMP chairs can be summed up as follows:

- **2009 (Singapore)**
  - Publication of the Expert Report *Meeting APEC's Post-Crisis Infrastructure Challenge: Towards Commonality in PPP Infrastructure Markets*
  - Launch of a new FMP Initiative: *APEC Infrastructure Pathfinder Initiative*
  - Convening of the *Inaugural World Bank-Singapore Infrastructure Finance Summit*
- **2010 (Japan)**
  - Endorsement of the *Kyoto Report on Growth Strategy and Finance*, which included a section on infrastructure
  - Implementation of Phase Two of the APEC Infrastructure Pathfinder Initiative: Capacity Building Workshop (August, Melbourne)
  - Convening of the ABAC-Asian Development Bank-Japan Bank for International Cooperation Infrastructure Forum, (November, Yokohama)
- **2011 (USA)**
  - Convening of the US-World Bank Conference *The Framework and Options for Public and Private Financing of Infrastructure* (June, Washington DC)
  - Launch of a new FMP Initiative: *Asia-Pacific Infrastructure Partnership (APIP)*
  - Holding of APIP Dialogues: Mexico, Peru, Philippines
  - Convening of the ABAC-WB Infrastructure PPP Workshop with APEC Finance Deputies (November, Honolulu)
- **2012 (Russia)**
  - Holding of APIP Dialogues: Vietnam, Indonesia
- **2013 (Indonesia)**
  - Launch of a new FMP Initiative: APEC PPP Centers and APEC PPP Experts Advisory Panel (MYPIDI Work Stream 3)
  - Establishment of the Pilot PPP Center in Indonesia
  - Convening of an FMP Workshop *Toward a Common Framework of Project Readiness to Increase Infrastructure Investment in APEC Region* (April, Makassar)
  - Convening of the APEC-OECD Seminar *Enhancing the role of institutional investors in infrastructure financing* (August, Palembang)
  - Holding of APIP Dialogues: Philippines II, Thailand, Indonesia II, Malaysia
  - Convening of meetings of the PPP Experts Advisory Panel
- **2014 (China)**
  - Endorsement of the *Implementation Roadmap to Develop Successful Infrastructure PPP Projects in the APEC Region* (Annex to Joint Ministerial Statement)

has resulted in the development of platforms and tool kits that can be harnessed in assisting economies to this end. These include the creation and expansion of a network of PPP centers in several economies that can serve as hubs for the accumulation, transmission and dissemination of knowledge on PPPs in these economies from 2013 onwards, the compilation of best practices based on the conclusions of various conferences and dialogues into the *Implementation Roadmap to Develop Successful Infrastructure PPP Projects in the APEC Region* in 2014, and the launch of the Cebu Action Plan in 2015, which defined a multi-year plan for advancing key deliverables and for closer cooperation among ADB, OECD, WB, the Global Infrastructure Hub, the Sustainable Infrastructure Foundation and the private sector through ABAC, the APIP and APFF.

With these elements in place, the key issue looking ahead is how this concentration of expertise and resources can be harnessed to achieve tangible results in terms of concrete PPP projects being brought to the market in developing economies and a robust pipeline of such projects being created. This year, APIP and APFF stakeholders initiated a new approach based on a program of dialogues with selected economies targeting a specific sector where there is an urgent need for infrastructure and where successful initial projects can serve as models for the design of similar projects that can be the beginnings of a future project pipeline.

At a High-Level APEC conference held in Tokyo,[2] participants alerted the Advisory Group Chair to the growing need to accelerate the development of infrastructure to deal with the exponentially growing volume of waste being generated. This challenge is particularly acute in the Asia-Pacific region, which is expected to produce 1.4 billion metric tons of municipal solid waste annually by 2030.[3] With the revenue gap in financing for the municipal solid waste sector having reached an estimated US$40 billion, governments are keen to create adequate political, economic and regulatory conditions that enable the flow of investment in waste management solutions from private investors, multilateral development banks and other sources of capital, and to promote improved capacity on the

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  - Compilation of *Demonstrative Infrastructure PPP Projects*
  - Convening of the FMP Seminar *Public Sector's Role in PPP Modality* (April, Fuzhou)
  - Convening of the FMP Seminar *Long-Term Stable Financing for Infrastructure Development* (June, Dalian)
  - Establishment of the PPP Center in China
  - Holding of APIP Dialogue: Indonesia III
  - Convening of meetings of the PPP Experts Advisory Panel
- **2015 (Philippines)**
  - Convening of the APEC Workshop on Infrastructure Financing and Capital Market Development "*Fostering APEC's Infrastructure through Long-Term Investment and Capital Market Development*" (July, Iloilo City)
  - Launch of the Cebu Action Plan with Infrastructure as Pillar 4
  - Holding of APIP Dialogue: Philippines III
  - Convening of meetings of the PPP Experts Advisory Panel
- **2016 (Peru)**
  - Convening of the PPP Experts' Advisory Panel Meeting "*Strengthening Public Policy for an Integrated and Resilient Asia-Pacific Region*" (May, Trujillo)
  - Holding of APIP Dialogue: Thailand II, Vietnam II

[2] APEC High Level Meeting on Overcoming Barriers to Financing Waste Management Systems to Prevent Marine Litter, 28-29 September 2016, Mita Kaigisho Conference Center, Tokyo, Japan.

[3] United Nations Environment Programme (UNEP) and International Solid Waste Association (ISWA), *Global Waste Management Outlook 2015*.

part of the public sector to develop bankable projects.

In response to this and the proposal for collaboration from the Japanese Government, which is undertaking a joint project with Indonesia to develop waste-to-energy projects, APIP and APFF stakeholders participated in a dialogue to contribute insights to the Indonesian central and local governments and relevant supporting institutions on the best way forward. Solid waste management systems are critical for Indonesia given its archipelagic geography, its stage of economic development and urbanization and the accelerating growth of solid waste production that is rapidly outstripping capacity to manage this waste. This dialogue came at a time when Indonesian cities are looking for solutions to this issue and exploring a variety of actions, including improving basic collection, waste-to-energy projects and new technologies for vertical integration.

The dialogue brought to the table together with the private sector key institutions with which APFF and APIP are actively collaborating in the area of infrastructure finance. These included the Asian Development Bank (ADB) the World Bank Group (WBG), the Global Infrastructure Hub (GIH), the Sustainable Infrastructure Foundation (SIF), and bilateral development agencies, among others. By focusing discussions on the most important concrete and practical issues to address key obstacles to the flow of private sector investment in Indonesian solid waste management projects, this dialogue aimed to contribute to the development of models that can help catalyze the growth of PPPs in waste management in Indonesia and across the region.

The dialogue allowed participants to identify specific key challenges in designing and implementing effective waste management approaches through public private partnerships in Indonesia, as well as to recommend ways to meet these challenges. Private sector participants shared their experiences with actual waste management projects in other developing economies and how they dealt with challenges in these markets. The conclusions of the dialogue report were seen as a basis for developing technical guidelines to help government officials of major Indonesian cities in designing waste management projects.

The Japanese Government has decided to provide financial support for the development of technical guidelines in Indonesia, dialogues and training seminars for relevant local government officials in cooperation with several ministries, and invited APIP and APFF to help involve private, public and international experts in the development of the guidelines and the seminars. Discussions with the Philippine, Vietnamese and Mexican governments are also ongoing to hold dialogues on PPPs in waste management in the near future.

Recommendation

- ***Support sector-specific dialogues and capacity building activities in interested economies that seek to leverage the expertise in international and specialized organizations like the ADB, OECD, World Bank Group, Global Infrastructure Hub, Sustainable Infrastructure Foundation and the private sector through ABAC, APIP and APFF, starting with PPPs in waste management. These activities should aim for helping relevant agencies launch successful initial projects that can serve as models for similar ones and catalyze the creation of a pipeline of bankable PPP projects in***

the sector.

III. Expanding Access to Finance

The Asia-Pacific Forum on Financial Inclusion is a policy initiative under the APEC Finance Ministers Process that has been entrusted to the APEC Business Advisory Council (ABAC). While the Forum provided an opportunity for stakeholders to review the current trends, recent achievements, ongoing challenges and opportunities relative to financial inclusion in the region; its primary purpose was to provide priority recommendations to policy makers and regulators to enable greater financial inclusion throughout the APEC region. The agenda for the 2017 ABAC Asia-Pacific Forum on Financial Inclusion provided a platform to facilitate discussions amongst nearly 200 key financial inclusion stakeholders to develop recommendations in a collaborative forum for policy reform and strengthening. These recommendations, which are outlined below, will be further detailed in the Forum report which will be disseminated to APEC stakeholders in October 2017.

The Asia-Pacific Forum on Financial Inclusion was hosted by the Asia-Pacific Economic Cooperation (APEC) and the State Bank of Vietnam and organized by the Foundation for Development Cooperation (FDC) and the APEC Business Advisory Committee (ABAC) in partnership with the Citi Foundation, the Asian Development Bank Institute (ADBI), the Asian Development Bank (ADB), the Vietnam Bank for Agriculture and Rural Development (VBARD) and the World Saving and Retail Banking Institute (WSBI). Additional support for the Forum was provided by the International Finance Corporation (IFC), the Alliance for Financial Inclusion (AFI), Deutsche Bank and the GIZ Regulatory Framework Promotion of Pro-poor Insurance Markets.

Madam Nguyen Thi Hong, Deputy Governor of the State Bank of Vietnam, opened the Forum remarking that despite the achievements made for financial inclusion globally, many challenges remain. These challenges include a broad range of issues such as the lack of formal financial services, gender inequalities, income gaps, development disparities, low levels of financial literacy and education, the quality of regulatory frameworks for consumer protection and supervision, insufficient investment for financial infrastructures and the cyber security threats in the digital age. To overcome these challenges, Madam Hong encouraged stakeholders should seek opportunities to collaborate, develop effective financial inclusion strategies and learn from the lessons and experiences of other economies.

The Asia-Pacific Forum on Financial Inclusion has provided an important opportunity for stakeholders to gather and develop partnerships, programs and new ideas to support their financial inclusion efforts. The following sections of this report provide a brief overview of each of the topics discussed along with a summary of the specific recommendations for the consideration of APEC policy makers and regulators.

1. Defining Financial Inclusion

Financial inclusion is a multi-dimensional concept and as such it is not easy to define or to measure. While there is wide consensus that it is a key component of human wellbeing and has a positive effect on economic growth and development, there is no common definition of financial inclusion. Each economy is unique and determines its definition depending on the specific characteristics of its financial sector and national priorities. Even so, it is essential to have a definition of financial inclusion as it provides the parameters for strategy development, target setting, measurement of progress and impact assessment.

Key conclusions:

- As a multi-stakeholder development issue, regulators need to engage with multiple stakeholders, including practitioners and other government agencies, to develop a shared understanding or definition of financial inclusion. Achieving this will enhance strategy development, execution and measurement. However, the creation of a universal standard should not delay nor displace the focus each economy needs to give to the local ecosystem.
- Regulators should seek to adopt a framework for defining financial inclusion which includes all of its key dimensions including access, usage and quality.
- A framework for defining financial inclusion should include considerations for several relevant aspects including providers (formal and informal), delivery channels and products. The framework should also promote customer centricity and identify clear target groups.

2. Agrifinance

Agriculture remains a major source of livelihood for the majority of population living in rural areas in developing countries. Improving both public investments in agri or agri-aligned sectors and private investments are vital. Specific policy support is required from the government to enable solutions that will improve access to finance for farmers. With the impacts of climate change becoming more prevalent on the agriculture industry, policies which support climate resilience are also increasing in their importance.

Key conclusions:

- The focus on agri-technologies and finance supply chains needs to be urgently increased to meet food supply needs and to de-risk current threats – such as climate change – to agricultural production.
- Agriculture still remains a major source of livelihood for the majority of population in the Asia-Pacific region. Policies should be formed which support the resilience of clients in agriculture value chains against potential climate-related shocks.
- Technology platforms for agrifinance have the potential to provide significant benefits, including reducing costs and increasing yields. Regulatory frameworks need to be structured that support the implementation of such technologies.
- Much of the agriculture sector within APEC economies is almost entirely cash-based. Regulators need to prioritize methods which will enable the digitization of the economy as a way to significantly increase efficiency, cost-benefits and provide secure and traceable transactions.

3. Distributed Ledger Technology (DLT) Across Financial Services: Prospects and Emerging Policies

Advanced technologies like the Distributed Ledger Technology (DLT) can play a major role in re-shaping the future of financial services. However, these new technologies and the new business models that they create may not comfortably fit within existing regulatory categories, which could eventually cause an imbalance between inclusiveness, innovation and risks to inhibit the benefits that society could have received. To facilitate better outcomes, a better understanding is needed of the prospects and implications of DLT, related emergent financial services models and the legal and regulatory considerations.

Key conclusions:

- Regulators need to be open to distributed ledger technology and work with the relevant stakeholders to understand its potential for financial inclusion and associated risks. DLT should not, however, be considered a "one-size-fits-all" application and should be examined within the local context of the economy to determine how it can be most appropriately integrated.
- Proportionate regulation is important to balance innovation with trust and market integrity. Regulators also need to consider how to achieve fair and equitable competition; particularly as DLT solutions would likely co-exist with formal banking channels and leverage on each other.
- Attention is needed on cross-border harmonisation of similar regulatory approaches to DLT applications to support scalability of solutions and to minimise risks of fragmentation of regulatory approaches that can result in unintended barriers.
- Appropriate governance frameworks are needed that can promote technological interoperability with traditional payment systems, appropriate scalability and support transparency for data collection to facilitate monitoring and regulatory/policy calibrations.

4. Financial Education

Financial education is a major issue impacting many APEC economies. Financial literacy can help spur economic growth by improving management of savings and investment. Although many economies in have experienced strong economic growth, financial literacy in remains low. Financial literacy is increasingly important as technology brings financial services to people who have not previously had access to financial services; consumers and small- and medium-sized enterprises need financial education to understand how to securely and effectively utilize the new financial services. Financial education can also help strengthen retirement planning and mitigate the challenges faced by aging societies.

Key conclusions:

- Regulators need to consider ways to work effectively with the industry to develop and implement new methods of reaching target audiences for financial education. Some examples of such collaborations include incorporating financial education into school curriculums or introducing financial training programs within workplaces.

- Each economy should develop their own financial inclusion strategy. These strategies should include considerations for the many different models needed for different target groups (i.e. adults vs youth) as well as economy-specific elements based on the local context and needs.

- Financial education needs to focus as much on knowledge and awareness about finance and its products, as it does on building trust in fast-moving developments in areas such as digital and mobile finance if financial inclusion using these more dynamic technologies will be achieved.

5. Creating an Enabling Environment for Micro-financial Products and Services

Client-centric financial products and services which are designed to address the constraints and challenges faced by different types of clientele are essential to successful financial inclusion strategies. Agencies aiming to achieve financial inclusion through responsive product design are generally lacking in adequate information regarding customers' demand, knowledge and perception about the financial products and services on offer. They are also faced by the challenge of creating a regulatory environment that allows ease of access to services for a diverse set of clientele in an efficient and cost-effective manner. Policy makers and regulatory bodies are also challenged by the need to regulate and supervise a range of financial service providers. The goal of sustainable financial inclusion through the provision of client-focused financial products and services to micro finance clients requires responsive policy and an enabling regulatory environment that can support product design and innovation, regulate and supervise a range of service providers and delivery channels.

Key conclusions:

- The last three decades have seen a significant increase in the number of products and services becoming available; and the rise of fintech and digital has created even greater opportunities than ever before. In order for regulators to keep up with the fast-moving developments of new technologies, they need to ensure regular interaction with market players.

- Eligibility for access is a major barrier for inclusion which can largely be addressed through new technologies such as bio-metric card systems that can reach the mass of population. Regulators have an important role to play by ensuring that regulations enable the necessary investment and innovation takes place as the industry increasingly moves towards digital solutions

- Regulators should encourage the development of new products that address asset creation and risk-mitigation such as investment tools linked with savings and a wider range of affordable and effective insurance products.

- Enhanced monitoring and supervision will result in greater trust and confidence among consumers. This should include processes which will enable prompt action on unfair practices, improved consumer protection and grievance redress mechanisms.

6. Developing Microinsurance Roadmap for APEC Emerging Economies

The Microinsurance Roadmap (MIR) is being developed to provide the APEC Finance

Ministers with practical guidance to assist policy makers and regulators expand access to microinsurance products and develop greater awareness among consumers about the benefits of insurance. As part of the MIR's development cycle, stakeholders are invited to provide inputs on several aspects of the roadmap such as specific elements which can contribute to increasing access to inclusive insurance, resources, both public and private, that can be drawn to support the MIRs implementation, methods to engage the government sector to secure their support for the MIR and approaches to implement the roadmap considering sub-regional grouping, economy contexts, and maturity levels of various financial inclusion environments.

Key conclusions:

- In order for the APEC Microinsurance Roadmap to be successful, governments need to champion it locally and ensure an enabling environment as well as specific incentives to support implementation through the private sector.
- Governments can also play a lead role in promoting awareness among consumers to help them understand the value of insurance and to better determine which products would be most suitable for their needs.

7. Online Supply Chain Finance: Key Challenges and Policy Requirements

Supply Chain Finance (SCF) is a way to organize and optimize financial services by leveraging the commercial and social relationship on a chain. In recent years, more and more SCF players are moving to the Internet-based platforms in the Asia Pacific Region. This has proved to be useful for scaling up credit and other financial services to MSMEs, rural and agricultural businesses, suppliers, distributors and traders, etc. There are several key challenges relating to SCF, including the need for specific legislative, policy or regulatory reforms to expand access; particularly to rural and agricultural clients.

Key conclusions:

- Governments need to establish the necessary legal foundations for the use of receivables and inventory as collateral, and to provide creditors with appropriate priority and enforcement rights. Achieving this may require reforms in secured transaction law, insolvency law, e-commerce law and laws relevant to the digital transfer of documents.
- Regulators should seek to develop a friendly business environment for both banks and non-deposit taking lenders to originate, underwrite and manage SCF services efficiently. In particular, regulators should not place undue constraints on SCF business models.
- Regulators should encourage the creation of electronic finance platforms by different players. Where necessary, business associations and government development agencies can also set up market level platforms that operate on an open and commercial basis. Government support for MSME finance can be channeled through such platforms in a commercially sustainable way.
- Regulators should promote cross-border SCF which will in turn help to deepen regional trade and economic integration. Among others, regulators should develop

practical KYC and other data transfer requirements. Credit reporting information also needs to be made available to the cross-border SCF players.

8. Digital Identity

As finance, payments and personal money-management increasingly become all-digital, one thing is clear: creating, managing and protecting digital identities for individuals has become a critical need. Discussions and collaborations between stakeholders is crucial to understand the diverse perspectives of the pioneering digital identity initiatives around the world, best practices and key areas of focus. Discussion and debate is also needed to identify who, in the increasingly complex digital world, is best placed to manage the new type of digital identities everyone will need and how regulatory and legal frameworks need to adapt.

Key conclusions:

- Regulators need to understand that the ability of individuals to be able to prove their unique identity in real time, on location as well as remotely, is fundamental to realising the full value that sits across the financial inclusion spectrum.
- Regulators should make it a national priority to design and universally roll out digital identity and authentication mechanisms, with due consideration to privacy and data security.
- Regulators need to seize the short-term opportunity to make national digital-identity frameworks interoperable, in support of:
  - lower cost to provide financial services
  - reduced friction in cross-border trade and remittances
  - enhanced AML, KYC and prevention of terrorism funding
  - better data flows

Recommendation

- ***The Advisory Group encourages relevant authorities in APEC member economies to study the report and conclusions of the 2017 Asia-Pacific Forum on Financial Inclusion and adopt or implement its recommendations as applicable to their respective markets.***

IV. Improving Valuation Practices in APEC

In the light of the impact of valuation on a wide range of economic and business areas, there is a need to ensure that the valuation profession has the capacity to undertake its work in a professional and credible manner that gives a central role to standards, ethics, independence and objectivity, competence and transparency. The key components of such a framework include the availability of a robust regulatory regime appropriate across all asset classes, the presence of strong professional organizations, access to reliable information, availability of education and training and the profession’s adherence to widely accepted valuation and professional practice standards, followed by appropriate and visible enforcement.

The Advisory Group’s work in promoting high quality valuation practices and professionals across member economies has been led by the International Valuation Standards Council (IVSC) and involves valuation professional organizations (VPOs) across the region, experts from industry and other relevant bodies. This work focuses on (a) promoting region-wide convergence of valuation practices; (b) exploring the valuation landscape in Asia Pacific economies; (c) discussing model valuation architecture, associated best practice, the role of commonly accepted valuations standards and of VPOs; (d) recording strengths, weaknesses and impediments to improving valuation practices and identify where there is need to develop and/or reinforce valuation infrastructure; (e) prioritizing opportunities to enhance existing landscape and implementation challenges; and (f) outlining the development process for member economies that lack valuation infrastructure.

Stakeholders have since completed work on two documents, which are now both available online. The first is the audit of the valuation landscape in APEC's 21 member economies, covering various asset classes.[4] The second is the template of best practices, which describes various options for establishing best practice landscapes for valuation practices in member economies.[5] Roundtables were convened in Malaysia and Papua New Guinea in 2016 to discuss best practices.

Recently, interest has been generated across a number of economies by the issue of International Valuation Standards (IVS) 2017 in February this year. IVS 2017 represents a major update of the international valuation standards promoted by IVSC as the benchmark to be adopted when valuing tangible and intangible assets both in-economy but, more particularly, on a cross border/boundary basis. The response has been most positive and fits well with the agreed strategy to establish a common set of standards across the 21 APEC economies and to support the development of a robust valuation profession to ensure the delivery and use of such standards. A copy of IVS 2017 has been circulated for members' reference and information.

The Working Group continues to receive requests for workshops and roundtables to address, in particular, in-economy valuation challenges and issues. These largely focus on the desire of economies to provide further financial assistance and support to their SME communities and as a result legislation and initiatives that are being introduced around secured lending. This often involves the use of intangible assets as collateral and this is unchartered ground for many banks and financial institutions. The Working Group has already held seminars and fora in Thailand, Philippines and Indonesia to explain and elaborate how to approach the valuation of such collateral and believe that working with FIDN there is scope for a structured program of dialogues across many of the APEC economies, including in this year APEC host, Vietnam.

Recommendation

- ***The Advisory Group encourages APEC member economies to host discussions with ABAC, the International Valuation Standards Council (IVSC), valuation***

[4] This may be downloaded from http://www2.abaconline.org/assets/2016/3%20Shenzen/Resource_Material_-_APEC_Valuation_Landscape.pdf .

[5] This may be downloaded from http://www2.abaconline.org/assets/2016/3%20Shenzen/Resource_Material_-_Valuation_Best_Practices_Template.pdf .

professional organizations (VPOs), experts from industry and other relevant bodies on improving the quality of valuation practices and professionals.