Asia-Pacific
Economic Cooperation

APEC Business Advisory Council

Asia-Pacific Financial Forum

2016 Progress Report to the APEC Finance Ministers

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EXECUTIVE SUMMARY

Home to 39 percent of the world's population and generating 57 percent of its economic output, the Asia-Pacific region is undoubtedly the most dynamic corner of the globe. Fueled by external trade and investment, many of its economies, particularly on the Western side of the Pacific, experienced rapid growth and rising prosperity in the late 20th and early in this century to become some of today's top manufacturing, trading and technological powerhouses.

However, the financial sector has lagged behind in this process. With the exception of a few advanced financial centers, most economies in the region have yet to develop the deep and liquid capital markets needed to support financial stability and the financing of long-term undertakings and projects, especially infrastructure. Most formal financial institutions, particularly in the banking system where the region's financial resources are concentrated, remain unable to serve the needs of large parts of the population as well as micro-, small and medium enterprises (MSMEs).

With a few exceptions, markets in the region are not supported by the presence of a strong long-term investor base, especially insurance firms and pension funds. The region's fragmented markets, regulatory regimes and market infrastructure provide a difficult terrain for lenders and investors seeking opportunities in financing cross-border projects and transactions. Many economies' legal frameworks, especially in secured transactions, insolvency, privacy and credit information, need to be redesigned to fit the needs of enterprises in a globalized and digital world.

To provide a platform for public-private collaboration to develop robust and integrated financial markets in the region, the APEC Business Advisory Council (ABAC) proposed the establishment of the Asia-Pacific Financial Forum (APFF). APEC Finance Ministers, at their 2013 annual meeting in Bali, launched the APFF as one of their policy initiatives. The APFF work program is currently structured around four major clusters:

- MSMEs' access to financial services;
- the development of deep, liquid and integrated financial markets;
- promoting financial resilience; and
- financial innovation.

Enabling MSMEs to effectively participate in economic activities and global value chains (including domestic commercial activity and access to international markets and export opportunities) is an important objective for APEC member economies. For most MSMEs, lack of access to finance is a key obstacle. Since the 2015 APEC

Finance Ministers' Meeting, ABAC has collaborated with finance ministries, regulatory agencies and other stakeholders in the APFF to undertake several activities to address this issue. These include the launch of the Financial Infrastructure Development Network (FIDN) in November 2015 and seminars and workshops held in the Philippines, China and Thailand to support them in developing their credit information and secured transaction systems, as well as a workshop in Singapore to address issues in trade and supply chain finance.

- ***It is recommended that APEC member economies work with FIDN to develop modern full-file and comprehensive credit information systems and regionally consistent legal and institutional frameworks for secured transactions and insolvency that can facilitate the use of movable assets as collateral. These will help expand MSMEs' access to finance and enable them to increase their contributions to regional integration. This effort should involve: (a) the convening of workshops in individual economies bringing together public and private sector stakeholders and experts; (b) advisory activities and seminars to support legal and policy reform and modernization of collateral and credit registries; (c) outreach activities to educate MSMEs, lenders and other market participants on how they can benefit from these opportunities; and (d) support for the pathfinder projects on cross-border sharing of commercial and consumer credit reports among credit bureaus within existing legal and regulatory frameworks, the development of the credit information data dictionary and the baseline analysis of credit information sharing in APEC member economies.***

In today's globalized world, cross-border trade, supply chains and supply chain finance play key roles in the deepening and broadening of an economy's industrial base, leading to growth. Increased risk aversion in the wake of the global financial crisis has led to a general tightening of credit for lesser known enterprises, particularly for MSMEs in lower tiers of global supply chains and in frontier, developing and emerging markets. Thus, the need to reduce barriers and inefficiencies in the trade ecosystem to facilitate businesses' abilities to conduct cross-border trade and access supply chain finance has become even more important than before.

- ***It is recommended that APEC member economies collaborate with APFF in holding public-private dialogues across all relevant agencies and stakeholders on regulatory issues and emerging facilitators of trade and supply chain finance. These should aim to promote effective and regionally consistent implementation of capital and liquidity standards, greater awareness of Know-Your-Customer, Counterparty Due Diligence and Anti-Money Laundering rules. They should also focus on the expanded use of technology including electronic supply chain management platforms, wider use of Bank Payment Obligations (BPOs) and related working capital management techniques, and facilitating market education and information exchanges on the use of regional currencies such as the RMB.***

Being in the world's most natural disaster-prone region, Asia-Pacific policy makers are setting their sights on developing financial instruments to help mitigate the impact of disasters *ex ante*. APFF supports the Finance Ministers' work on disaster risk financing and insurance (DRFI), identifying deliverables and their timelines to (a) establish private disaster insurance schemes and deepen insurance penetration within economies; (b) develop regional risk sharing measures, and (c) develop a roadmap and network of experts through the support of APFF for expanding the coverage of micro-insurance and disaster risk financing in member economies.

- ***APEC member economies are encouraged to identify economies and perils of priority as an initial step in promoting private disaster insurance schemes as envisaged under the Cebu Action Plan (CAP). This may be undertaken through a workshop in early 2017 with broad participation from finance ministries and related public sector stakeholders, multilateral institutions and the private sector through APFF.***

- ***It is proposed that the Finance Ministers' Process complete the stock-taking on availability of risk exposure data as a step toward the development of regional risk-sharing measures. This may be undertaken through the aforementioned workshop in conjunction with the previous recommendation.***

- ***It is proposed that the drafting of an APEC roadmap for DRFI be initiated as envisaged under the CAP, involving experts from the public and private sectors and multilateral institutions.***

Effective risk management through microinsurance is critical for low income individuals, micro- and small enterprises, and developing economies. It is an important financial product for developing economies that are exposed to frequent natural disasters. It plays a key role in disaster risk financing, where the underdevelopment of capital markets hinders the use of instruments such as natural catastrophe bonds. Around three billion people globally are potential microinsurance customers who can generate an estimated USD30 billion in insurance premiums - a substantial market for many developing economies. New developments in mobile insurance, disaster risk management and public-private partnerships are helping to expand inclusive insurance while also requiring a paradigm shift for regulators, insurers, and others in the insurance value chain.

- ***It is proposed that stakeholders in the APEC Finance Ministers' Process undertake activities in 2017 to complete the roadmap for expanding microinsurance coverage as envisioned under the CAP. Discussions on the roadmap may include the following elements: (a) 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 develop products that are appropriate for MSMEs;[1]***

[1] The toolkit highlights four steps: risk assessment, disaster risk management mapping, identification of gaps and exploration of disaster risk options. Throughout these steps, the framework supports the integration of

(b) development of policy frameworks for establishing risk pools and other DRFI instruments, provision of incentives, use of technologies, and mechanisms for public-private sector cooperation; (c) creation of the legal basis for the provision of mandatory insurance coverage to MSMEs; (d) capacity building for public and private stakeholders regarding product development, distribution and promotion of MSME insurance; (e) development of data management on catastrophic events; (f) establishment of central business registries with hazard mapping and catastrophe coverage for enterprises; (g) proportionate regulation to support a wide range of insurance products designed for MSMEs; (h) mechanisms for public-private dialogue in developing products and solutions for responses to and mitigation of disaster risk; and (i) implementation, financing and coordination.

Long-term investors such as insurers and pension funds play critical roles in the development of capital markets and financing of infrastructure projects, in addition to the important functions that they play in providing financial security. With the progressive aging of the region's societies, their roles will become even more important going forward in channeling long-term liabilities into long-term assets that can provide adequate returns to meet future emergency and retirement needs.

- ***APEC economies should consider the establishment of mandatory and scalable retirement systems.*** *A mandatory system provides the scale necessary to effectively channel the region's huge savings currently concentrated in short-term bank deposits into longer term institutional investments and productive assets. Retirement savings can help professionalize the financial system through deeper domestic capital markets and expanded roles of long-term investors such as insurers and pension funds. Scalability is provided by implementing strong tax incentives to encourage higher levels of retirement savings. 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.*

- ***APEC economies should promote infrastructure investment as a defined asset class to facilitate more holistic regulatory treatment that can encourage more private sector infrastructure investment.*** *Inadequate infrastructure investment has been a long-standing issue in emerging Asia (outside of China), as documented by the ADB and others. At the same time, Asia's huge savings are still being mostly channeled into short-term bank deposits and government securities in mature markets. Promotion of infrastructure as a defined asset class will help bridge the gap between Asian savings and investable long-term assets.*

- ***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*

microinsurance as a key part of broader disaster risk strategies.

long-term investments and retirement solutions, barriers of 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.

- ***It is 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 conferences organized by network members and to convene workshops in the region involving a wide range of stakeholders.***

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. The global Islamic capital market has been growing in size and depth across jurisdictions, with a combined market capitalization of around USD23.2 trillion spread across 58 jurisdictions covered by the Dow Jones Islamic Market World Index (as of the time of this Report's writing).[2] 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), that could facilitate the mobilization of capital in Islamic institutions to fund infrastructure across the region. Subsequent workshops were convened in Brunei Darussalam and Kuala Lumpur to advance thinking on the issue.

- ***APEC should establish an Islamic Infrastructure Investment Platform (I3P) as a pathfinder initiative to 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 from takaful and Islamic pension funds, in infrastructure projects in APEC economies. I3P should address in its work the definitions of infrastructure and financial instruments, Islamic hedging instruments, financial instruments for pension funds and takaful and discriminatory tax policies. It should also create a directory of experts, definitions, funders, participating economies and qualifying infrastructure projects, and collaborate with the International Infrastructure Support System (IISS).***

Capital markets, particularly local currency bond markets, are of crucial importance for the region's financial stability, economic growth, and the efficient channeling of long-term savings to investment in long-term assets like infrastructure. Various initiatives have successfully brought about the rapid growth of Asian government bond markets, a key stage in the process of capital market development. The next stage, which is increasing market depth and liquidity, will be critical to the sustained growth and development of the region's capital markets.

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2 *Dow Jones Islamic Market World Index Fact Sheet* (https://www.djindexes.com/mdsidx/downloads/fact_info/Dow_Jones_Islamic_Market_World_Index_Fact_Sheet.pdf).

APFF continues to engage with domestic regulators and governments to encourage the further development of classic repurchase agreement (repo) and derivatives markets and increasing secondary market liquidity in the region. APFF also created a series of self-assessment templates on disclosure, bond market data and information on investor rights in insolvency. These templates can serve as tools to facilitate and shape public-private sector dialogue on information for investors in the region's debt markets, especially those for non-bank corporate debt. Finally, the APFF is supporting the successful launch of the Asia Region Funds Passport by encouraging other member economies to join the ARFP and providing regulators an assessment of the key tax metrics in actual and potential ARFP participating jurisdictions.

- ***Member economies are encouraged to collaborate with APFF in undertaking workshops on development of classic repo and derivatives markets to enable the effective use of hedging instruments and improve bond market liquidity. The APFF also welcomes collaboration from other interested organizations in financing and convening these activities.***

- ***More member economies should engage with APFF in using the self-assessment templates on information for capital market investors to help expand the investor base.***

- ***More member economies should join the Asia Region Funds Passport (ARFP) by signing the Memorandum of Cooperation. APFF also 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.***

- ***It is recommended that participating regulators continue to engage the private sector on the implementation of the ARFP.***

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 with market practice, standards and platforms that can selectively harmonize market access and repatriation practices, improve the inter-operability, liquidity and connectivity of domestic and cross-border financial markets, and reduce systemic risks.

- ***APFF proposes to convene a regional symposium in 2017 on the development of a roadmap for improving the regional financial market infrastructure. Discussions could focus on (a) the harmonization of market access and repatriation practices; (b) improving the inter-operability, liquidity and connectivity of domestic and cross-border financial markets; (c) reducing systemic risks; and (d) creating a securities investment ecosystem that can promote cross-border portfolio investment flows across member economies.***

The growing role of financial technology (Fintech) raises new opportunities and risks with respect to the development of the region's FMI, which is also particularly important in promoting cross-border operations of MSMEs. The APFF can provide a platform for industry, public sector and multilateral stakeholders to help policy makers and regulators identify approaches and ways forward to address issues in three key areas. These cut across Fintech developments in APEC where early work and progress can be made under the APFF process through a series of workshops – cybersecurity, Know-Your-Customer (KYC) rules and electronic payments (e-Payments).

- ***Policy makers and regulators should participate in APFF workshops on cybersecurity, Know-Your-Customer (KYC) rules and e-Payments to facilitate innovation in the region's financial market infrastructure.***

The potential of Fintech to drive inclusive growth is huge, but technological innovations can also magnify the potential for harm to consumers, the economy and financial systems. This increases the burden on regulators to keep pace with the innovations in the market, which will enable them to make regulations more effective in enhancing stability and enabling innovation and growth, and to strike the right balance between adapting to the local contexts across different markets and developing a regulatory model that can be applicable in many markets and thus able to contain compliance costs and provide seamless scale.

- ***It is recommended that APEC Finance Ministers establish a regional platform to bring together stakeholders from the public and private sectors to address in close collaboration with each other key issues arising from the development of Fintech. Through this platform, they could identify concrete ways to help member economies harness financial innovation to build bigger, robust, inclusive and integrated financial markets. These stakeholders should include representatives from the industry (Fintech startups and major financial institutions, related service providers, associations and experts), public sector (government and regulatory agencies, relevant APEC fora) and major international organizations.***

The rapid and continuing evolution of financial markets and ongoing efforts by Asia-Pacific economies to modernize their financial systems pose major challenges to policy makers and regulators. APFF continues to provide a platform for research and discussions on the present conditions and future directions of financial markets and regulations. This is helping authorities and industry deepen their knowledge of markets and anticipate emerging issues. This includes research on the role of Islamic finance in cross-border funding of infrastructure developed in conjunction with Harvard University that would help overcome the problems arising from differing interpretations of Sharia compliance.

- ***It is recommended that APEC Finance Ministers encourage policy makers and regulators involved in the region's financial markets to participate in dialogues***

and programs organized by academic and research institutions together with the financial industry to further the work of APFF on regional financial architecture and regulations.

- ***It is recommended that APEC Finance Ministers welcome the APFF's work on definitions of infrastructure and real assets in the context of developing an enabling environment for investment by Islamic financial institutions in infrastructure and encourage their adoption.***

Building on its 2014 Interim Report and 2015 Progress Report to APEC Finance Ministers, the APFF this year advanced its work on several initiatives. This work included a number of roundtables, workshops and conferences across the region, work stream discussions, and collaboration with APEC finance officials. This year, the APFF supported the Finance Ministers' efforts to begin implementing the initiatives of the CAP. The APFF also continues to undertake activities assigned by the CAP in the areas of capital market development, financial infrastructure for MSMEs and trade and supply chain finance.

The success of these undertakings will depend on active participation and engagement from the public sector. APFF intends to provide a forum and informal network for dialogue and capacity building where they can interact on a regular and sustained basis with experts in relevant specialized and technical fields from the private sector and international and academic organizations. The APFF looks forward to close collaboration with the APEC Finance Ministers in achieving concrete results to advance the various initiatives under the CAP.

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INTRODUCTION

Home to 39 percent of the world's population and generating 57 percent of its economic output, the Asia-Pacific region is undoubtedly the most dynamic corner of the globe. Fueled by external trade and investment, many of its economies, particularly on the Western side of the Pacific, experienced rapid growth and rising prosperity in the late 20th and early in this century to become some of today's top manufacturing, trading and technological powerhouses.

However, the financial sector has lagged behind in this process. With the exception of a few advanced financial centers, most economies in the region have yet to develop the deep and liquid capital markets needed to support financial stability and the financing of long-term undertakings and projects, especially infrastructure. Most formal financial institutions, particularly in the banking system where the region's financial resources are concentrated, remain unable to serve the needs of large parts of the population as well as micro-, small and medium enterprises (MSMEs).

With a few exceptions, markets in the region are not supported by the presence of a strong long-term investor base, especially insurance firms and pension funds. The region's fragmented markets, regulatory regimes and market infrastructure provide a difficult terrain for lenders and investors seeking opportunities in financing cross-border projects and transactions. Many economies' legal frameworks, especially in secured transactions, insolvency, privacy and credit information, need to be redesigned to fit the needs of enterprises in a globalized and digital world.

The lack of a robust financial sector was not a significant issue in the early stages of the region's economic development, when rapid growth was driven by exports to North America and Europe, direct investments and the migration of labor from agriculture to manufacturing. As their economies matured, requiring a more balanced mix of consumption and investment to spur growth, and trading patterns increased in complexity with the emergence of supply chains, the need for more developed financial systems became more pronounced.

The Asian Financial Crisis of 1997-98 exposed the weaknesses of the region's financial systems, which relied overwhelmingly on the banking sector. Economies' exposure to the double (maturity and currency) mismatch that led to the crisis and its painful aftermath prompted domestic and regional efforts to pursue the development of local currency bond markets. Economies' growing need for investment in infrastructure to alleviate the strains generated by rapidly growing business activities in urban centers also placed the spotlight on inadequate capital markets and the dearth of domestic sources of long-term finance.

The combined impact of underdeveloped financial systems on consumption, investment, enterprise growth, trade and infrastructure development and their knock-on effects on employment and economic growth underscores the importance of financial sector development for economies to avoid the middle income trap. At the same time, a fast growing region with huge savings, a large population, high mobile phone penetration, a growing middle class and massive infrastructure investment needs at a time when traditional business models are being disrupted across financial services presents tremendous opportunities.

This is the context in which the Asia-Pacific Financial Forum (APFF) was proposed by the APEC Business Advisory Council (ABAC) and launched by APEC Finance Ministers at their 2013 annual meeting in Bali. Its purpose is to provide a platform for public-private collaboration to develop robust and integrated financial markets in the region. The APFF work program is currently structured around four major clusters.

- The first deals with issues related to MSMEs' access to financial services, which is a priority issue in many APEC member economies. This focuses on addressing weaknesses in the financial infrastructure that lenders use to manage credit risks in lending to MSMEs. This also includes access to trade and supply chain finance for those involved in global and regional supply chains.

- The second deals with the development of deep, liquid and integrated financial markets, which is important for a variety of reasons. These include the need for more diverse and stable financial systems, improved availability and lower costs of financing for public and private borrowers, more efficient intermediation of the region's savings into investments, greater capacity to finance infrastructure development, growth of the region's financial services sector and better investment opportunities to finance future needs.

- The third deals with promoting financial resilience in the Asia-Pacific region, which is the most disaster-prone region in the world. It includes access to microinsurance services for low-income individuals and households as well as disaster risk financing and insurance (DRFI) mechanisms to help mitigate the impact of natural catastrophes *ex ante*.

- The fourth deals with financial innovation, in particular how policy makers and regulators could respond to the growing use of financial technology (Fintech), which includes mobile money, shared ledger technology, big data, artificial intelligence, electronic platforms, advanced analytics and automated processes, among others, that is challenging established business models.

An overarching theme that encompasses issues in these four clusters is the regional financial and regulatory architecture, where APFF is engaging academic financial experts, regulators, standard setters and industry practitioners. This includes discussion of the broader global regulatory reform and standard setting process and the role of the Asia-Pacific regulatory community and financial industry within this setting.

This Progress Report is structured along seven major themes, each corresponding to an active APFF work stream:

- financial infrastructure, which is divided into credit information and secured transactions and movable asset finance systems;
- trade and supply chain finance;
- microinsurance and disaster risk financing and insurance (DRFI);
- retirement income and long-term investment in capital markets and infrastructure, which includes the impact of regulation and accounting issues;
- capital markets, which includes sections on classic repo and derivatives markets, information for capital market investors, support for the Asia Region Funds Passport (ARFP) initiative, and financial market infrastructure and cross-border practices;
- financial innovation; and
- linkages and structural issues.

ADVANCING THE FINANCIAL INFRASTRUCTURE DEVELOPMENT NETWORK (FIDN)

FIDN has been an excellent platform for stakeholders to share and learn from each other on how to develop the financial infrastructure necessary for broad-based growth and development. For the Bangko Sentral ng Pilipinas, we continue to learn from other jurisdictions and experts on the areas of credit information systems, secured transaction systems and collateral registries which all contribute to making our financial system more inclusive.

Nestor Espenilla – Deputy Governor, Bangko Sentral ng Pilipinas, Republic of the Philippines

Initiatives such as FIDN paved the way for the development of better financial innovation policies, as regulators, financial institutions and development partners collaborate to pursue reforms in all forms and on all fronts to improve and develop inclusive financial services for all, especially for the underserved and marginalized sectors of society.

The launching of FIDN in the Philippines last November 2015 followed by the two FIDN conferences, sent a strong message that the government, in partnership with the private sector and development partners, is committed in its aspiration for inclusive growth by pursuing policy reforms that enable MSMEs to tap financial resources through other acceptable and non-traditional forms of collateral.

Gil Beltran – Undersecretary, Department of Finance, Republic of the Philippines

The FIDN events have brought to fore the existing gaps in the secured transactions regime in the Philippines, particularly, as regards the use of movable collaterals. They have broadened my knowledge on the possibilities that our economy could consider adopting in our quest to improve existing laws, systems and procedures to further bolster financial inclusion of our MSMEs. Further, the lessons and experiences shared by other economies provided a rich source of information which the Philippines can use in coming up with the right formula to address our own challenges in this regard.

The said events also made it clear that for this endeavor to succeed, it would entail not only the active participation of all government agencies concerned, but that it would also require the invaluable cooperation of all the stakeholders, such as the different lending institutions and, more importantly, the MSMEs themselves. Indeed, the passage into law of the desired legislative measure is just the first step in our long journey to achieving a modern secured transactions regime that is truly responsive to the needs of both our MSMEs and lending institutions.

Ronaldo Ortile – Deputy Administrator, Land Registration Authority, Department of Justice, Republic of the Philippines

Given the velocity with which entrepreneurs can spot opportunities, the promised availability of credit only leads stakeholders to automatically think bigger and more outward towards the larger markets. The opportunity to do business outside the economy, whether as a participant in a global value chain or as a direct entrant into the other ASEAN economies, creates a demand to find parallel solutions to those issues encountered in the Philippines, i.e. access to credit. It is quite fortunate that there is the FIDN project in place that the CIC can participate in.

The existence of the FIDN gives the CIC credibility to fulfill the promise that a better credit and collateral regime in this economy, better for its openness and transparency, will be replicated elsewhere which in turn will open up more international opportunities in a level playing field. The depth of organizations and resource persons made visible in the various FIDN forums brings faces to the organization that inspire the local entrepreneur that what is spoken of can actually be done.

Ultimately, while the success of a local or ASEAN wide venture is subject to many variables, FIDN promises to be the platform from which cross-border ventures will find the energy to launch, not as a guarantee of success, but as an assurance of a playing field where the terms of engagement are clear. The benefit to CIC is how this exciting prospect pushes the local stakeholders into full and enthusiastic compliance as they come to understand that locally, the CIC's data sharing registry is the entry point into a greater set of international opportunities.

Jaime Garchitorena – CEO & President, Credit Information Corporation (regulatory body for credit bureaus)

Enabling MSMEs to effectively participate in economic activities and global value chains (including domestic commercial activity and access to international markets and export opportunities) is an important objective for APEC member economies. For most MSMEs, lack of access to finance is a key obstacle. Behind this are factors such as inadequate legal and institutional infrastructure to support risk-based lending using transaction data and the use of movable assets as collateral. The Finance Ministers have identified these issues as priorities and incorporated them in the Cebu Action Plan (CAP).

Since the 2015 APEC Finance Ministers' Meeting, APFF has provided the platform for collaboration among the private sector, finance ministries, regulatory agencies and other stakeholders to undertake various activities to advance these initiatives. These include the launch of the Financial Infrastructure Development Network (FIDN) as a subgroup of the APFF in November 2015 and seminars and workshops held in the Philippines, China and Thailand to support them in developing their credit information and secured transaction systems.

Credit information

With the approval of the CAP in 2015, specific projects were set for credit information sharing (CIS) as part of FIDN. Regarding CIS, the FIDN specifies the following 5 core deliverables/work streams:

- the development of a consumer credit information data dictionary;
- the development of a commercial credit information data dictionary;
- the implementation of a cross-border consumer credit information sharing pilot;
- the implementation of a cross-border commercial credit information sharing pilot; and
- the completion of a baseline study on consumer/commercial credit information sharing practices and laws.

A CIS Steering Committee was created to execute the work plan specified in the CAP. The FIDN CIS Steering Committee is comprised of representatives from the private sector (the Asia-Pacific Credit Coalition or APCC, the Consumer Data Industry Association or CDIA, the Business Information Industry Association or BIIA, the Australian Retail Credit Association or ARCA, and the global firms Lexis-Nexis, D&B, Experian and TransUnion), and from non-governmental organizations and multilateral institutions (Policy and Economic Research Council or PERC, the International Finance Corporation/World Bank Group or IFC/WBG and ABAC). Individual project managers were designated for each of the 5 sub-streams (Experian and PERC/APCC leading sub-stream 1; BIIA leading sub-stream 2; ARCA/D&B/PERC leading sub-stream 3; IFC/BIIA leading sub-stream 4; and PERC leading sub-stream 5). Individual project managers report progress to the FIDN CIS Steering Committee at least quarterly or more often as needed.

The following describes the work of the different substreams

- *Sub-stream 1: Consumer Credit Data Dictionary*. After various consultations, CDIA has agreed to share a copy of Metro 2 (a new standard electronic data reporting format) with either PERC and/or BIIA for use in efforts to generate a regional template data dictionary. In addition, the project manager secured participation of experts from industry to guide and assist efforts in this work stream. This represents a major step forward as the combined expertise from designated experts at Experian and TransUnion will greatly expedite progress with the development of the consumer credit data dictionary. PERC/APCC, Experian and BIIA have begun coordinating efforts to control for and minimize duplicative work given the recognition of the substantial overlay between the consumer and commercial credit data dictionary work streams. It is anticipated that a draft consumer credit data dictionary will be completed by the end of 2016, to be revised and finalized by mid-2017.

- *Sub-stream 2: Commercial Credit Data Dictionary*. Project managers from the BIIA have begun collecting data formats and guidebooks for business information from among APEC member economies and have amassed over one dozen. In addition, BIIA has socialized this project with its membership and has enlisted the active participation of CRIF, CreditSafe, Experian, and IFC/WBG in a peer review capacity. As with the consumer credit data dictionary, the generation of a regional template for the commercial credit data dictionary will be greatly aided with the active participation of subject matter experts from the private sector. The project manager has begun a comparative analysis of the various data formats in an effort to emphasize similarities and to target distinct differences as areas to address moving forward. It is anticipated that a draft commercial credit data dictionary will be completed by the end of 2016 to be revised and finalized by mid-2017.

- *Sub-stream 3: Cross-border Consumer Credit Information Sharing Pilot*. The project manager has been engaged in ongoing discussion with ARCA about the potential for a cross-border pilot using consumer credit data flows among Australia, New Zealand, and several surrounding Pacific islands. ARCA had received a prior pledge of support for such a project from the parliaments in both Australia and New Zealand. It is expected that ARCA will reach a decision on the proposed collaboration with FIDN on this project during the 3rd quarter of 2016. In the event that ARCA is unable to move forward, APCC member D&B Australasia has indicated a potential willingness to take the lead on the pilot and aid PERC/APCC and the FIDN CIS Steering Committee. This project is expected to begin in 2017.

- *Sub-stream 4: Cross-border Commercial Credit Information Sharing Pilot*. In line with the CAP's call for a regional credit information network, IFC/WBG and ABAC organized the first meeting of the Mekong sub-region credit reporting services providers (CRSPs) in Bangkok on July 4, 2016, with the support of the BIIA, National Credit Bureau of Thailand, and the Thai Bankers' Association. The event managed to gather together eight CRSPs from China, Vietnam, Thailand, Cambodia and Lao PDR to seriously discuss how to share credit information for the purpose of trade, investment and cross-border employment.[3] Participants agreed on a set of basic principles for the sub-regional credit reporting collaboration. Among others, these include the following:
    - Sharing will be in the form of credit reports only, not a physical transfer of data from one economy to another.
    - CRSPs will set up voluntary, bilateral and reciprocal arrangements among themselves.
    - Sharing will be conducted based on commercial principles and driven by enquiries from the data subject host economies.
    - CRSPs should comply with any existing regulatory requirements in the data

3 Participants recognized and agreed on the need for cross-economy exchanges of credit information in view of the deepening economic integration in the Asia-Pacific Region. It is acknowledged that credit information collaboration across borders is particularly challenging as various economies have structured their credit reporting systems to service domestic members only. All participating CRSPs expressed willingness to develop ways for such exchanges subject to their respective stages of development, regulatory requirements and market demands. Participants brainstormed on the basic process of sharing credit reports across the borders and how to handle identify verification and dispute resolutions. They also agreed to meet on an annual basis in order to know each other better and to review progress. The on-going work on the credit reporting Data Dictionary led by BIIA will be complementary to this pilot initiative in the Mekong.

subject source economies (e.g., consent, permissible use, security requirement).

- The host economy CRSP should validate the identity of data subjects and be prepared to assist the source economy CRSP on any information disputes.
- CRSPs should make available English version credit reports. Participants also emphasized the importance of adequate communications with their regulators, members and data subjects on this new type of services. IFC will take the lead in developing a sample bilateral agreement.

- *Sub-stream 5: Baseline Research on Credit Information Sharing within APEC.* PERC and the National Center for APEC discussed funding for this research project with various organizations. The United States Agency for International Development (USAID) and the US Department of State, which are both collaborating with FIDN, indicated that the project is significant and would yield valuable information that would support the objectives of the CAP, and offered to help close any funding gap should the project receive partial funding. The project managers will work to submit funding notes for different segments of the FIDN deliverables during the next APEC funding cycle, while continuing to seek funding for the baseline research. Once funding is secured, the research and analysis can be completed within 12 months. Aspirationally, this work stands to be concluded at the end of 2017.

Secured Transactions Reform

The Secured Transactions Reform Committee (STRC) of the FIDN promotes 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, infrastructure projects and cross-border trade and supply chains. ABAC, partnering private sector organizations, IFC/WBG and the Organization for Economic Co-operation and Development (OECD) will collaborate with and be supported by a broad range of institutions. These include international organizations, public sector bodies, private sector firms, and academic entities within interested economies.

Through workshops, direct outreach to policy makers, dialogues and studies, the Committee is seeking 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 interest notice filing systems and comprehensive coverage of security interests on movable assets such as accounts receivables, inventory, equipment, title documents, instruments, and intellectual property, among others; and

- partner with local economy stakeholders 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 (e.g., 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 the launch of FIDN in November 2015, the Committee 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 and cost-efficient access to global best practices and expertise across the necessary elements to achieve modern secured transactions reform, including in areas such as:

- *Legislation and Model Laws*: Committee members include experts from IFC/WBG, United Nations Commission on International Trade Law (UNCITRAL), USAID, National Law Center, Harvard University and a number of consultants with experience working with economies to develop modern secured transaction regimes.

- *Collateral Registry Development*: Committee members include the Australian Financial Security Authority (Australia's collateral registry registrar), the Ministry of Economy of Mexico, and the Land Registration Authority under the Department of Justice of the Philippines.

- *Training and Capacity Building*: Committee members include the Commercial Finance Association (CFA), the predominant industry trade group for asset-based lending; and Factors Chain International (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.

The Committee has also actively engaged with the Strengthening Economic Legal Infrastructure (SELI) group of the Economic Committee to promote reform efforts across the APEC member economies. Since the launch of FIDN, the Committee has provided expertise to interested member economies, including the Philippines, Brunei, China and Thailand.

Supporting the Reform of the Philippines' Financial Infrastructure

FIDN delivered the following results to the Philippines:

- *Established a common understanding of the key reforms in secured transactions and credit information systems across the relevant key stakeholders.*Through the FIDN's engagement, mind sets have shifted across key relevant stakeholders and clients. Clients and stakeholders are now aligned and in full appreciation of best practices shared by experts and the business case for credit infrastructure reforms.

- *Established strong partnerships locally and internationally that clients can leverage on*. Recognizing that other local agencies are also focused on the same goal of promoting financial inclusion, the Committee extended the invitation to participate to other relevant government entities like the Philippine central bank. The Deputy Governor of the central bank has become a solid partner championing credit infrastructure reforms and has been very instrumental in facilitating dialogues and presentations relating to the reforms through the FIDN. On the international front, the Committee engaged FIDN's international experts in the private and public sectors. These partners have been additional champions to promote credit infrastructure reforms.

- *Solidified commitment and priority*. By participating in FIDN activities, the Committee was able to help solidify the commitment and prioritization of the Department of Finance's objectives in the government's agenda and the APEC's agenda. Credit infrastructure is now part of the roadmap of reforms that the APEC economies committed to and signed off under the Philippines' APEC leadership in 2015. FIDN provided the opportunity to collaborate with various agencies within the government. With the solidified partnership, a number of key officials in the Philippine Government (Chair of the Securities and Exchange Commission, Undersecretaries of the Department of Finance, Deputy Governor and Directors of the Philippine Central Bank and National Treasurer of the Philippines) have become willing and regular active participants of the FIDN forum to facilitate dialogue and act as keynote speakers. Messages coming from this level of the government have been very effective in promoting buy-in among other stakeholders.

The launch of the FIDN in November 2015 brought together around 300 participants (e.g., bankers, MSMEs, lawyers, media) and was covered by 30 media people across local and international networks. It was attended by around 20 APEC delegates and key officials in the Philippine Government (Secretary of Finance, National Treasurer, Securities and Exchange Commission Chair, Central Bank Deputy Governor, among others). The launch was featured in a number of leading local and international newspapers.

Motivated by the lessons learned from FIDN, the Philippines' technical working group on Secured Transactions immediately initiated its working sessions to focus on drafting the new Philippine secured transactions law. Through FIDN, international experts shared their expertise, their lessons of experience and the private sector view with Philippine policy makers pursuing credit infrastructure reforms.

In March, the Committee provided a workshop on secured lending to interested stakeholders in Brunei at the invitation of the Monetary Authority of Brunei in support of their recent enactment of a modern secured transactions order. As Brunei sought support for creating a new collateral registry in support of the law, the Committee provided introductions to the Ministry of Economy in Mexico. As the law nears implementation, FIDN and the Monetary Authority are discussing additional capacity building and industry training activities to accelerate adoption of secured lending and expanded access to credit to Brunei MSMEs and mid-market enterprises.

On May 21-22, FIDN supported a conference in Nanjing, China to help the Chinese government obtain broader and effective support for its plan to introduce an updated secured transactions law. This joint conference was held with IFC/WBG, the People's Bank of China (PBOC), the Nanjing University of Finance and Economics, and the China Society for Civil Law Research. China plans to introduce the first Civil Code in its history, with approval of general principles expected in early 2017 and various elements to be developed afterwards, including a new secured transactions law.

The conference provided technical knowledge from international experience and promoted better understanding of the business side of secured transactions among law academics and legal professionals who will be advising officials in the design of the legal framework. This conference aimed to help them provide advice that will be consistent with what lenders and MSMEs require to effectively lend on a secured basis. Other participants and speakers included representatives from PBOC, the National People's Congress, the Supreme People's Court and China's commercial banks, as well as academics and officials from Korea, Vietnam, and the USA. FIDN provided international experts to talk about best practices in various aspects of secured transactions from other economies.

More recently, FIDN has begun engagement with the Bank of Thailand, in conjunction with the Thai Bankers' Association, to support the introduction of the recently enacted secured transaction law – and prepared a workshop for policymakers, regulators and industry participants in August in Bangkok to build awareness and adoption of the new law.

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 and China. During the balance of the APEC year, FIDN hopes to build upon these successes with each of the economies through continued workshops and capacity building – as well as to support other interested member economies.

Recommendation

- ***It is recommended that APEC member economies work with FIDN to develop modern full-file and comprehensive credit information systems and regionally consistent legal and institutional frameworks for secured transactions and insolvency that can facilitate the use of movable assets as collateral. These will help expand MSMEs' access to finance and enable them to increase their contributions to regional integration. This effort should involve: (a) the convening of workshops in individual economies bringing together public and private sector stakeholders and experts; (b) advisory activities and seminars to support legal and policy reform and modernization of collateral and credit registries; (c) outreach activities to educate MSMEs, lenders and other market***

participants on how they can benefit from these opportunities; and (d) support for the pathfinder projects on cross-border sharing of commercial and consumer credit reports among credit bureaus within existing legal and regulatory frameworks, the development of the credit information data dictionary and the baseline analysis of credit information sharing in APEC member economies.

FACILITATING TRADE AND SUPPLY CHAIN FINANCE

In today's globalized economies, cross-border trade, supply chains and supply chain finance play key roles in the deepening and broadening of an economy's industrial base, leading to growth. Trade finance is critical to support global trade flows, which are now being materially reshaped, with intra-regional trade growing in importance. Production lines that were previously based only in one location are now increasingly being deconstructed and spread across different locations to take advantage of factor endowments.

Supply chain finance primarily provides the necessary financing and liquidity to support firms' working capital needs. Increased risk aversion in the wake of the global financial crisis has led to a general tightening of credit for lesser known enterprises, particularly for MSMEs in lower tiers of global supply chains and in frontier, developing and emerging markets. [4] While many factors influence trade, the long-term sustainability of financing to support increased production, import and export levels and firms' access to finance are important factors that have been significantly affected by post-global financial crisis dynamics.

Numerous factors affect trade and supply chain finance. High priority items for consideration include the environment for secured transactions, bank capital regulations and rules on Counterparty Due Diligence (CDD). Other factors that can facilitate trade and supply chain finance are innovations such as electronic supply chain management platforms and Bank Payment Obligations (BPOs) and the wider use of regional currencies in trade settlement, which can make supply chain participants' access to working capital more efficient.

This year, the APFF's work on trade and supply chain finance was undertaken in the context of a slowing down of economic growth and a more rapid deceleration of trade growth, especially in the Asia-Pacific region. These trends are disproportionately affecting MSMEs and, given their significant contributions across APEC to employment (over 50 percent) and production (between 20 and 50 percent of GDP),[5] the region's economy as well. Thus, the need to reduce barriers and inefficiencies in the trade ecosystem to facilitate businesses' abilities to conduct cross-border trade and access supply chain finance has become even more important than before.

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4 Alexander Malaket estimates that, based on analysis from the Asian Development Bank and the International Finance Corporation, there is an annual global trade financing gap (unmet demand) of USD 1-2 trillion, a significant portion of which is linked to SME suppliers in emerging Asian markets. See "How can we close the global trade financing gap?" *World Economic Forum* (https://www.weforum.org/agenda/2015/11/how-can-we-close-the-global-trade-financing-gap/).

5 Source: http://www.apec.org/Groups/SOM-Steering-Committee-on-Economic-and-Technical-Cooperation/Working-Groups/Small-and-Medium-Enterprises.aspx

Discussions undertaken by partner institutions in the APFF, including a conference organized on 9-10 March 2016 by the International Chamber of Commerce in Singapore, an informal dialogue with trade finance experts in Singapore on 7 July and an APFF workshop hosted by ABAC Singapore and the Singapore Business Federation on 8 July have yielded the following insights:

Consistent Know-Your-Customer/Customer Due Diligence/Anti-Money Laundering (KYC/CDD/AML) standards across supply chains and awareness by all participants are needed to facilitate sustainable access to finance. Of an estimated USD2.1 trillion of criminal proceeds reported in 2011, USD1.6 trillion were estimated to have been laundered through financial institutions, of which in turn less than 0.5 percent were recovered. [6] Additionally, heavy fines were imposed on a number of financial institutions for weak financial controls. In 2013, financial institutions accounted for most of about 2 million Suspicious Activity Reports (SARs) filed globally.[7]

Due to the costly KYC process and regulatory risk for control failures, many banks have turned to de-risking of selected clients, industries and geographies of concern and readjusting their risk-acceptance criteria. This de-risking has also impacted correspondent banking relationships, with certain markets effectively losing access to the global banking network and thus to trade finance and trade opportunities.

KYC/AML compliance activity is an ongoing effort that starts from client onboarding to transaction-level monitoring for suspicious and unusual activities. It is applied regardless of size to suppliers, buyers and correspondent banks involved in the whole supply chain and across geographic locations. It is comprehensive, necessarily detailed and requires sufficient resources, including technology, to assist in or to monitor compliance. There is some push from among regulators and within industry for risk-based due diligence and KYC and Know Your Customer's Customer (KYCC) requirements. The degree of due diligence - expected and executed - can vary significantly, and the challenges relate as much to clients' constraints as to banks' constraints and sub-optimal processes.

However, there are scenarios where resource-stretched businesses can neglect providing timely information to their banks. It can lead to the raising of banks' internal "red flags" on such businesses, submission of SARs to authorities and finally seeking to exit relationships when there is a perceived disproportionate increase of their risks-to-opportunity profile. Some financial institutions are working with their clients to promote a common standard in KYC/AML

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6 This is not to imply that such volumes are materially linked to trade finance. In fact, the vast majority of so-called trade-based money laundering occurs outside of trade finance, through invoice padding.

7 Standard Chartered Bank: *De-risking, Know-Your-Customer & Anti-Money Laundering Compliance in Trade*, 8 July 2016.

compliance and de-risking through education, in order to reduce financial crime and regulatory risk for both the client and the bank.

What this means for public-private collaboration: KYC/AML compliance has significant impact on access to finance, and is taking up considerable resources and time of financial institutions, given the huge penalties they face for non-compliance. Greater training and awareness of KYC/AML standards throughout supply chains can reduce the incidence of KYC/AML breaches and thus, selective de-risking. Well-considered market utilities can promote efficient, effective and cost-optimal compliance. Consistent communication of expectations and consequences[8] and consistency between regulatory directives and their implementation by inspectors and supervisors are important.

Modernization of secured transactions systems and their convergence across the region can reduce credit risks and promote access to finance. Secured transactions laws establish the fundamental framework on which financing and credit risks management can be executed by banks to improve access to finance. Progressive improvements in these areas, from reforms started over a decade ago, are now showing dividends. An example of an economy that has undertaken significant reform is Vietnam, which recently enacted a civil code that incorporated best practices in secured transactions.

However, a number of economies continue to have implementation gaps between laws and practices that blunt these laws' positive impact. These gaps include insufficient credit information and transparency, a lack of judicial precedence in enforcement, and underdeveloped collateral management ecosystems. Economies also face the challenges of ensuring that reforms keep pace with the faster pace of market development and deepening the understanding of the market and its practices by legal professionals, the judiciary and legal experts. APEC economies currently exhibit wide variations in level of development of various aspects of secured transactions laws, as measured by the World Bank Group. [See Table 1.]

What this means for public-private collaboration. The work of FIDN on secured transactions, credit information and insolvency needs to continue, particularly in addressing implementation gaps between laws on one hand and regulations and market practices on the other through activities promoting greater awareness and an interdisciplinary approach.

[8] For example, IMF Managing Director Christine Lagarde mentioned that highly visible enforcement actions have only focused on violations that were "repeated, systematic, and egregious" and are not meant to pursue accidental occurrences that are due to lack of information or mistakes in judgment. See IMF, *Relations in Banking – Making it Work for Everyone* (*https://www.imf.org/en/News/Articles/2016/07/15/13/45/SP071816-Relations-in-Banking-Making-It-Work-For-Everyone*)

Table 1: Secured Transactions Legal Rights – APEC Economies (10 – key features are all present)

Economy	1	2	3	4	5	6	7	8	9	10	Economy Total
Australia	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
Brunei Darussalam	x	✓	✓	✓	✓	x	x	x	x	x	4
Canada	✓	✓	✓	✓	✓	x	✓	✓	x	✓	8
Chile	x	x	✓	✓	✓	✓	x	x	x	x	4
China	x	x	✓	x	✓	x	x	x	✓	x	3
Hong Kong, China	x	✓	✓	✓	✓	x	x	x	✓	✓	7
Indonesia	x	✓	x	✓	✓	x	x	x	x	x	4
Japan	x	✓	x	x	✓	x	x	x	✓	✓	4
Korea	x	x	x	✓	✓	✓	x	✓	x	✓	5
Malaysia	x	✓	✓	✓	✓	x	x	x	✓	✓	6
Mexico	✓	x	✓	x	✓	✓	✓	✓	✓	✓	9
New Zealand	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
Papua New Guinea	x	✓	✓	x	✓	x	x	x	x	x	3
Peru	✓	✓	✓	✓	✓	✓	✓	x	x	✓	8
Philippines	x	x	x	x	x	x	x	x	✓	✓	2
Russian Federation	x	x	✓	x	✓	✓	x	x	✓	✓	4
Singapore	x	✓	✓	✓	✓	x	x	✓	✓	✓	7
Chinese Taipei	x	x	x	x	✓	x	x	x	✓	✓	3
Thailand	x	x	x	x	✓	x	x	x	✓	x	2
USA	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	9
Vietnam	✓	✓	✓	x	✓	✓	x	x	x	✓	6

Legend – Features of a good secured transactions law:

1. Does an integrated or unified legal framework for secured transactions that extends to the creation, publicity and enforcement of functional equivalents to security interests in movable assets exist in the economy?
2. Does the law allow businesses to grant a non-possessory security right in a single category of movable assets, without requiring a specific description of collateral?
3. Does the law allow businesses to grant a non-possessory security right in substantially all of its assets, without requiring a specific description of collateral?
4. May a security right extend to future or after-acquired assets, and may it extend automatically to the products, proceeds or replacements of the original assets?
5. Is a general description of debts and obligations permitted in collateral agreements; can all types of debts and obligations be secured between parties; and can the collateral agreement include a maximum amount for which the assets are encumbered?
6. Is a collateral registry in operation for both incorporated and non-incorporated entities, that is unified geographically and by asset type, with an electronic database indexed by debtor's name?
7. Does a notice-based collateral registry exist in which all functional equivalents can be registered?
8. Does a modern collateral registry exist in which registrations, amendments, cancellations and searches can be performed online by any interested third party?
9. Are secured creditors paid first (i.e. before tax claims and employee claims) when a debtor defaults outside an insolvency procedure?
10. Does the law allow parties to agree on out of court enforcement at the time a security interest is created? Does the law allow the secured creditor to sell the collateral through public auction and private tender, as well as, for the secured creditor to keep the asset in satisfaction of the debt?

Source: *World Bank Group*

The trade and supply chain finance ecosystem is changing as a result of various drivers. These include technology, macroeconomic environment, concerns over rising corporate indebtedness and delinquency, legal reforms, and banking capital requirements and compliance needs. In particular:

a. Standardization of supply chain financing terminologies,[9] once adopted by markets, is expected to result in more coherent approaches to trade products and risks. This is conducive to facilitating more consistent access to financing products. The business case for further standardization can be considered and its business case viability will be needed.

b. Credit risk management limits like Single Name Limits, a lack of domestic sources of funds and foreign currency restrictions mean that regional and multinational banks continue to provide financing from established financial centers. Their domestic market financing activities remain low-key, which in other ways allows for collaboration with domestic financial institutions.

c. Supply chain financing banks are increasingly utilizing third party platforms that operate like an open architecture of banking services to clients or considering other forms of collaboration with Fintech firms and other non-banks. Banks are moving away from being "everything to everyone" to being more specialized. Being plugged into such third party platforms will become more important for MSMEs and businesses to avail themselves of a range of financing products and services.

d. The development of secondary markets for risk participation, including securitization-type methods, is important to free capacity in banks' tighter balance sheets.

e. Pricing for trade finance products is at an all-time low, which should facilitate access to finance. Participants need to note that this level of pricing is artificially low and is not sustainable, and a "hockey-stick" increase in pricing could occur. Businesses should perform stress-tests on their cashflow and profit and loss to better prepare for such a day.

f. Different jurisdictions have different degrees of requirements on KYC/AML, and this lack of consistency can be confusing to businesses' understanding. Regional and global banks tend to take the highest standard offered in any one of the jurisdictions where they operate, and apply it consistently across the rest.

g. Consistent client onboarding documentation and approach are key to growing supply chain financing.

Technology literacy can expand MSMEs' capacity to participate in supply chains. Technology is a financing enabler, and e-commerce and digital trade finance have always been a part of the APFF's agenda on trade and supply chain finance. This agenda had initially focused on the different e-commerce models that could act as

[9] *Source*: Bankers' Association for Finance and Trade (BAFT), Euro Banking Association (EBA), Factors Chain International (FCI) + International Factors Group (IFG), International Chamber of Commerce (ICC) and International Trade and Forfaiting Association (ITFA), *Standard Definitions for Techniques of Supply Chain Finance* 2016 (http://www.supplychain247.com/paper/standard_definitions_for_techniques_of_supply_chain_finance).

springboards for MSMEs and businesses to leapfrog onto global value chains. In 2015, the APFF began emphasizing technology supply chains for companies to become more attuned with market conditions, and thus to better manage their inventory and working capital. In 2016, this emphasis has deepened with calls for greater technology literacy.

a. Wider technology adoption has given rise to an "Everyone-to-everyone" economy (E2E) where value creation is increasingly and more often driven by connectivity and collaboration between consumers and organizations.

b. Blockchain is an advanced technology with potential to promote greater operational and financing efficiency. Some examples mentioned included possible applications in letters of credit which can blend in neatly with smart contracts, as well as the prevention of duplicated invoice financing.

c. Supply chain financing's scale and size are now more complex, with multidirectional flows among hubs, sourcing agents, suppliers and buyers across different jurisdictions. Technology is needed to keep pace with this complexity.

d. Financial institutions are increasingly collaborating with third party platforms to deliver focused value-added services. MSMEs and businesses need to be part of such third party platforms.

Singapore provides an example of a pilot initiative where authorities and industry collaborate in using blockchain technology to facilitate invoice recording and financing. It is estimated that wider commercial applications of blockchain technology can occur within a 2-year period. Within the mining industry, digitalization is being increasingly adopted in supply chain finance and operational processes.

Technology will play an ever increasing role in trade and supply chain finance, and the considerations for its successful introduction, adoption and dissemination will involve multifaceted issues[10] that need collaborative approaches to solve and unlock its value. Trade and supply chain finance is also linked to capital market development, in particular, the availability of a robust secondary market that can enable the securitization of trade loans and enhance the capacity of financial institutions to manage their balance sheets.

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10 For example, on 10th and 11th March 2016, Singapore's Attorney General's Chambers, UNCITRAL and the Association of Banks in Singapore had organized a roundtable and a seminar on *Electronization of Transferable Documents or Instruments Used in International Trade* to discuss the legal aspects of the uses of trade-related electronic documents. The seminar also introduced a draft UNCITRAL Model Law on Electronic Transferable Records that all together can eventually facilitate the important alignment of legal frameworks with applications of technological advances in business.

Recommendation

- ***It is recommended that APEC member economies collaborate with APFF in holding public-private dialogues across all relevant agencies and stakeholders on regulatory issues and emerging facilitators of trade and supply chain finance. These should aim to promote effective and regionally consistent implementation of capital and liquidity standards, greater awareness of Know-Your-Customer, Counterparty Due Diligence and Anti-Money Laundering rules. They should also focus on the expanded use of technology including electronic supply chain management platforms, wider use of Bank Payment Obligations (BPOs) and related working capital management techniques, and facilitating market education and information exchanges on the use of regional currencies such as the RMB.***

STRENGTHENING FINANCIAL RESILIENCE

When Peru hosted two disaster risk financing and insurance (DRFI) seminars in February 2016 under the Finance Ministers' Process, APFF cooperated actively with the Peruvian organizers in the Ministry of Economy and Finance, participating in the proceedings not only by providing a speaker to give the overall private sector perspective about helping to increase insurance penetration in APEC economies, but also by bringing in other participants from the private sector (two leading international CAT modelers) and a representative from IAIS who gave the insurance regulators' perspective.

At the same time, APFF has joined the Working Group created by eight economies together with World Bank and OECD, presently chaired by Peru, which will focus on issues of methodologies for data gathering about public assets exposure and to develop good quality insurance databases. It is expected that APFF will bring the private sector's perspective in helping the task assigned to the World Bank to build these methodologies.

Gregorio Belaunde Matossian – Director of Risk Management, Ministry of Economy and Finance, Peru

Disaster Risk Financing and Insurance (DRFI)

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, and significant enough to affect economies' 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. The year 2015 saw relatively modest economic losses from natural disasters in the APEC region. Nevertheless, the region suffered from unusually strong hydro-meteorological and significant seismic events.[11] During that year, APEC member economies collaborated with other stakeholders to advance work on disaster risk reduction and related issues including climate change. Various

[11] These include the severe winter storm in the U.S. (February), the thunderstorm that accompanied flash floods and storm surges in Australia (April), and Typhoon Goni which hit the Philippines and Japan (August). El Niño was blamed for bringing drought to the western part of the Pacific, including Vietnam, Malaysia, Thailand and Australia. The strong El Niño of 2015/16 has been faded, but many see global warming as an exacerbating factor for weather-related losses in the region. As regards geological risks, the 2016 Kumamoto earthquakes in Southern Japan turned out to be the second largest insured earthquake loss in the economy after the Tohoku Earthquake of March 2011.

international agreements[12] that were signed stress the importance of public-private sector collaboration in addressing the impact of natural disasters.

The Finance Ministers selected DRFI as one of the priority issues they incorporated 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 (see Table 2):[13]

- 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. Meanwhile, APFF intends to stay in close contact with the Asian Development Bank (ADB), OECD, WBG and other international institutions to help publish meaningful outputs to support policymaking efforts pertaining to DRFI. APFF's work will build on the studies so far published by ADB, OECD, WBG and the Geneva Association.

This year, APFF initiated its work on DRFI by building a network of industry experts who can collaborate with the International Association of Insurance Supervisors (IAIS), ADB, OECD and WB in achieving the CAP deliverables. This network now includes experts from the Geneva Association and insurance, re-insurance, catastrophe risk modelling and related firms. APFF also started collaborating actively with the ASEAN Natural Disaster Research and Works Sharing (ANDREWS), a working committee of the ASEAN Insurance Council (AIC).

APFF collaborated with the Peruvian Ministry of Economy and Finance in organizing the *APEC Workshop on Disaster Risk Financing & Insurance* on 13-14 February, 2016, in Lima, Peru.[14] The Workshop focused on how to improve catastrophic risk data

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12 These include the Sendai Framework on Disaster Risk Reduction, the Sustainable Development Goals and the Paris Agreement of 2015.

13 Besides the policy related deliverables, the plan also listed a number of studies to be carried out to support the discussion, namely, APEC disaster risk database, the Asian Development Bank (ADB) & OECD report on public finance frameworks, and OECD study on risk mitigation instruments.

14 The two-day workshop on DRFI was hosted by the Peruvian Ministry of Economy and Finance. The target audience was finance ministry officials in the APEC region, and the event benefited from the inputs given by OECD and the World Bank, as well as risk modelers. Officials from the Philippines, the US, Japan, Indonesia, New Zealand and Chile each presented living examples of existing and projected cases of disaster risk pooling scheme.

gathering, which is fundamentally important in designing an effective DRFI system, and what approaches can be taken to develop catastrophic risk pooling system on a domestic level. Among its key conclusions are the following:

- The quality, availability and ability to share or transfer risk data are crucial in the management of a DRFI scheme. While gathering data and modeling risks are costly, the information thus collected is useful for risk reduction, including awareness raising and urban planning. Ongoing international cooperation in climate and flood data sharing needs to be intensified.

TABLE 2: Timeline to Promote DRFI in the APEC Economies

CAP Deliverables	APFF Activities	Timeline		
		2016 (Peru)	2017 (Vietnam)	2018 (PNG)
1. Establish and promote private disaster insurance schemes	Contribution to APEC DRFI seminars	Presented private sector perspective at the APEC DRFI Workshop 13-14 Feb., Lima, Peru	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		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 2017)

*4 Completing the template for stock-taking (ideally through a workshop-style meeting as indicated above, to be held by first-half of 2017)

- Domestic catastrophic risk pooling should be considered part of a comprehensive disaster risk management package, including contingent credit lines and other forms of finance. Where insurance penetration is immature, making the most of existing community networks, such as that of lenders and relevant regulatory offices, can be effective. While data collection is of fundamental importance, parametric features could facilitate a quick implementation in some jurisdictions. The central government's role is crucial in establishing and managing effective DRFI schemes. However, practical expertise accumulated in private sector entities such as insurance companies, banks and risk modelers should be harnessed.

- While risk profiles and social and fiscal conditions may differ across jurisdictions, a comprehensive DRFI scheme needs to be designed and organized as a component of a disaster risk management system in each jurisdiction, involving awareness raising, risk assessment, risk reduction and sharing of data.

APFF also joined a working group together with eight economies, the World Bank and OECD that will develop methodologies for data gathering on public assets exposure and develop good quality insurance databases. APFF will bring the private sector's perspective in helping to build these methodologies. Finance ministry officials expressed their interest in advancing the implementation of DRFI with the support of international organizations and APFF.

Recommendations

- ***APEC member economies are encouraged to identify economies and perils of priority as an initial step in promoting private disaster insurance schemes as envisaged under the Cebu Action Plan (CAP). This may be undertaken through a workshop in early 2017 with broad participation from finance ministries and related public sector stakeholders, multilateral institutions and the private sector through APFF.***

- ***It is proposed that the Finance Ministers' Process complete the stock-taking on availability of risk exposure data as a step toward the development of regional risk-sharing measures. This may be undertaken through the aforementioned workshop in conjunction with the previous recommendation.***

- ***It is proposed that the drafting of an APEC roadmap for DRFI be initiated as envisaged under the CAP, involving experts from the public and private sectors and multilateral institutions.***

Microinsurance

Effective risk management through microinsurance is critical for low income individuals, micro- and small enterprises, and developing economies. About three billion people globally are potential microinsurance customers who can generate an estimated USD30 billion in insurance premiums - a substantial market for many developing economies. New developments in mobile insurance, disaster risk management and public-private partnerships are helping to expand inclusive insurance while also requiring a paradigm shift for regulators, insurers, and others in the insurance value chain.

Microinsurance is an important financial product for developing economies that are exposed to frequent natural disasters. It plays a key role in disaster risk financing, where the underdevelopment of capital markets hinders the use of instruments such as natural catastrophe bonds. An example is the Philippines, where (as of 2014 Insurance Commission data) 31 percent of the entire population has a coverage through Microinsurance products.

Microinsurance has proven very effective in helping promote recovery, in particular after the devastation caused by Typhoon Haiyan in 2013.[15] Microinsurance forms a key part of many micro- and small enterprises' strategy for ensuring business continuity after a risk event. It enhances their ability to access loans by mitigating lenders' risk concerns, reducing the need to seek additional loans and divert capital, and helping create risk-aware environments as more people begin to recognize the link between insurance premiums and risk levels.

Scale is an important driver of growth for the industry, allowing the cost of microinsurance products to be reduced as more insurers and clients are involved. It also allows the quality of insurance products to be improved. Technology provides an opportunity to achieve scale. While microinsurance coverage in most developing economies amounts to around 5 percent of the total population, their mobile penetration rates typically reach about 70 percent or more. This gap represents an opportunity for insurance providers to reach a much larger portion of the population through mobile products. [16]

In the context of financial inclusion, it is important to recognize that products such as savings, credit, insurance and payments should not be considered separately from each other. There is a need for greater recognition among stakeholders that these products can be integrated to increase impact and overall effectiveness in achieving financial inclusion. As an example, in the event of a crisis, a household would potentially use a variety of financial products to recover including their savings, micro-loans and insurance cover. By integrating multiple products, new solutions can be found to provide better value for customers and more effectively achieve an environment of financial inclusion which is not limited to a single product.

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[15] 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*

[16] Around 5.2 percent of the total market in Asia, Africa and Latin America are currently covered by microinsurance. This shows that much more needs to be done to increase access. There are nearly 1,000 microinsurance products currently being offered by more than 500 insurers. Currently, the primary microinsurance product is a life product, followed by an accident product. Far down the list are health insurance products. *Source: GIZ*.

Finance Ministers incorporated microinsurance in the CAP under the pillar of enhancing financial resilience. The main objectives as presented in the CAP are to deepen insurance penetration with high quality products, develop a roadmap for expanding microinsurance coverage and create a public-private dialogue. The dialogue should help bring the different stakeholders together to work collectively in understanding the issues and providing better risk management tools for low-income individuals and households. More specifically, the initiative aims to enhance financial education and facilitate better understanding of microinsurance products, strategies to promote proportional regulation and public-private partnerships.

This is also of significant relevance to MSMEs, which are highly vulnerable to the shocks of natural catastrophes. When natural disasters occur, the damage to MSMEs can have significant impacts on the wider economy and value chains. As such, analytical tools and methodologies to look at specific needs of MSMEs are likely to provide useful information for policy makers and other stakeholders and help enhance the quantity and quality of insurance products available to MSMEs.

Recommendation

- ***It is proposed that stakeholders in the APEC Finance Ministers' Process undertake activities in 2017 to complete the roadmap for expanding microinsurance coverage as envisioned under the CAP. Discussions on the roadmap may include the following elements: (a) 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 develop products that are appropriate for MSMEs;[17] (b) development of policy frameworks for establishing risk pools and other DRFI instruments, provision of incentives, use of technologies, and mechanisms for public-private sector cooperation; (c) creation of the legal basis for the provision of mandatory insurance coverage to MSMEs; (d) capacity building for public and private stakeholders regarding product development, distribution and promotion of MSME insurance; (e) development of data management on catastrophic events; (f) establishment of central business registries with hazard mapping and catastrophe coverage for enterprises; (g) proportionate regulation to support a wide range of insurance products designed for MSMEs; (h) mechanisms for public-private dialogue in developing products and solutions for responses to and mitigation of disaster risk; and (i) implementation, financing and coordination.***

[17] The toolkit highlights four steps: risk assessment, disaster risk management mapping, identification of gaps and exploration of disaster risk options. Throughout these steps, the framework supports the integration of microinsurance as a key part of broader disaster risk strategies.

EXPANDING THE REGION'S LONG-TERM INVESTOR BASE

Retirement Income and Long-Term Investment

Long-term investors such as insurers and pension funds play critical roles in the development of capital markets and financing of infrastructure projects, in addition to the important functions that they play in providing financial security. With the progressive aging of the region's societies, their roles will become even more important going forward in channeling long-term liabilities into long-term assets that can provide adequate returns to meet future emergency and retirement needs.

In order to support the CAP's initiative to promote long-term investment in infrastructure, the APFF created the Retirement and Long-Term Investment Working Group under its Insurance and Retirement Income Work Stream and has worked on the promotion of policies to address those three gaps. Participants include experts from the insurance, pension, banking and securities industries, academic specialists, consultants, regulators and international and regional organizations, such as the ADB and OECD.

As noted in the 2015 APFF Progress Report, efforts to encourage or even compel mandatory retirement savings in emerging APEC economies offer the opportunity to address the inter-related challenges of increasing the number of investable projects, developing capital markets and providing alternative means of disaster risk financing through the mobilization of large pools of patient, long-term capital in the form of retirement savings.

Mobilization of such large pools of long-term capital would represent a "triple win" for consumers, the financial sector and APEC member economies.

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

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

- ***Pension/Protection Gap***: Data provided by Oliver Wyman, Swiss Re, OECD and others document a large and growing protection gap in APEC economies.[18] In sum, Asian households do not have adequate long-term savings or protection

[18] See for example Swiss Re, *Asia-Pacific 2015 Mortality Protection Gap* (http://www.swissre.com/publications/Mortality_Protection_Gap_Report__AsiaPacific_2015.html); OECD, *Pensions in Asia/Pacific: Ageing Asia must face its pension problems* (https://www.oecd.org/finance/private-pensions/46260941.pdf); Christian Edelman and Christian Pedersen (Oliver Wyman), *The Financial Threat to Asian Economic Progress: Underdeveloped Capital Markets Could Crimp the Region's Growth* (http://www.oliverwyman.com/content/dam/oliver-wyman/global/en/2014/dec/RJ2014%2003_Financial%20Threat_Ipad.pdf)

for retirement. This represents a large, contingent fiscal liability for Asian governments.

- ***Infrastructure/Investment Gap***: Data provided by the ADB and others notes a large infrastructure and investment gap in APEC economies.[19] Failure to mobilize Asian savings into long-term investment leaves Asian economies vulnerable to the middle income trap.

- ***Regulatory/Accounting Gap***: APEC economies, and emerging economies in particular, have been constrained by regulatory and accounting regimes that have been designed for mature economies with slow economic growth (e.g. Solvency II in EU). The regulatory and accounting framework should take account of the above two gaps in pensions/protection and infrastructure/investment, and promote a sustainable regulatory and accounting regime that encourages both retirement savings and infrastructure/long-term investments within the context of high-growth economies.[20]

Pensions/Protection Gap

The need to promote long-term savings on the part of consumers is the engine that will drive the "triple win" of provision for retirement, deepening capital markets and relieving governments of contingent fiscal liabilities for unfunded retirement protection. The 2015 APFF Progress Report listed high-level recommendations to facilitate the growth of retirement savings demand as well as retirement income product supply. This can be achieved through measures that promote the development of retirement income system and ensure adequate retirement savings as well as adequate lifetime retirement incomes. Among those measures, we note in this report the three key means to address the pensions/protection 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 innovation and financial awareness.

- ***Mandatory provisions***: In the US, retirement savings and pension funds account for 50 percent of the capital market. In term of GDP, the largest economies in Asia ex-Japan, such as China, Indonesia, India, have long-term retirement savings of less than 10 percent of GDP, compared to the 70 percent in OECD countries. In most Asian emerging markets, less than half of the labor force is covered by current retirement systems. Retirement assets remain small relative to mature economies, while Asia expects an increase of 2 to 2.5 times in the proportion of retirees over the next few decades. Given the speed of aging in

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19 See Georg Inderst (ADB), *Infrastructure Investment, Private Finance, and Institutional Investors: Asia from a Global Perspective* (http://www.adb.org/sites/default/files/publication/179166/adbi-wp555.pdf)

20 An example of an effort toward this end is the development of the China Risk Oriented Solvency System (C-ROSS) regime in China.

Asia and the current relatively small retirement asset pool, APEC economies will need to establish mandatory and scalable retirement savings systems in order to effectively channel savings from short-term bank deposits into longer-term institutional investments and productive assets. Canada provides an example of reforms that address mandatory pension and equitable access to a sustainable pension. The Canadian government reached initial agreement in July 2016 with the majority of provinces on the reform of the Canadian Pension Plan. From 2019 to 2023, pension premium payments will be raised for workers, together with the mandatory contribution from employers.

- ***Tax incentives***: Tax incentives have been the most important policy lever in successful markets. Potential short-term reductions in tax revenues would be justified by bigger reductions in the long-term social costs of a growing portion of the population not having sufficient retirement income. Tax incentives to encourage the insurers to develop long-term products would have a follow-through effect on the capital market through increased demand for long-term funding vehicles. As tax incentive is a key tool for a scalable retirement saving system, APFF has prepared a comparison of tax incentives by economy. (See Appendix 2.)

- ***Product innovation and financial awareness***: In a majority of Asian economies, most retirement benefits are drawn as lump sums, and traditional annuities have not yet proven to be popular. However, new retirement income products such as variable annuities are emerging. Fintech and longevity risk pooling can also provide alternatives to traditional insurance solutions. In the US and UK, a number of plan sponsors are offering to transfer pension risk or liabilities risk to insurance companies (de-risking) for defined benefit plans. It may be another way for insurers to contribute to retirement security. The scale and success of retirement income solutions would depend on consumer education as well as public awareness programs targeting financial advisors, policymakers, regulators and other government bodies.

Life Insurance Association of Japan's Recommendations on Pension Reform

In February 2016, the Life Insurance Association of Japan (LIAJ) published a recommendation that proposes a core policy to establish a sustainable social security system with appropriate coordination of public and private retirement scheme. This initiative is consistent with the APFF recommendations on retirement savings and income.

Key issues identified are:

- Rapid aging with swelling public debt, the current public pension scheme needs crucial reforms to ensure sustainability. The need to prepare retirement with complementary pension scheme.

- Under the low interest rate environment, the capacity of both public and private pensions to provide lifetime retirement income is decreasing, even as the risk of outliving retirement savings grows.

The LIAJ's recommendation: Establish a new whole life private pension scheme "Longevity

Pension" that is easy to understand and provides a stable lifetime income.

In responding to those issues, the LIAJ recommends to establish "Longevity Pension" -- a new whole life private pension scheme to complement the public pension scheme. This new voluntary pension system, which is subsidized by the government and modeled after the Riester Pension Scheme in Germany, would provide a stable lifetime payout, starting at the same time with the public pension and lasting for a lifetime. It would be accessible to everyone and offset the shrinking "pay-as-you-go" public pension income to support retirement security. The LIAJ believes that the appropriate balance of the public and private pension schemes would make the social security system more sustainable, provide peace of mind for the society, and empower people to better enjoy life.

(*Source: LIAJ*)

Recommendation

- ***APEC economies should consider the establishment of mandatory and scalable retirement systems. A mandatory system provides the scale necessary to effectively channel the region's huge savings currently concentrated in short-term bank deposits into longer term institutional investments and productive assets. Retirement savings can help professionalize the financial system through deeper domestic capital markets and expanded roles of long-term investors such as insurers and pension funds. Scalability is provided by implementing strong tax incentives to encourage higher levels of retirement savings. 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

Asian savings rates are traditionally high, but these savings are generally short-term in nature. Asians put their savings into bank deposits, rather than longer-term savings vehicles. One reason for this is the relatively under-developed nature of capital markets in Asia. The price of capital – expressed in interest rates – has fallen due to excess Asian savings (supply of capital) and insufficient Asian investment project (demand for capital). The low interest rate policies of central banks in the developed economies have accentuated this downward pressure on global rates. The Asian "vice of savings" and dearth of investable assets have inhibited both the global recovery from the 2008 crisis as well as the Asian effort to escape from the "middle income trap" and move on to the next stage of economic development.

In its 2014 Interim Report, the APFF identified market issues, such as underdeveloped long-term capital markets, the small number of available bankable projects, lack of infrastructure financial instruments, lack of market instruments (i.e. derivatives, hedging tools) to manage portfolio risk, constraints on long-term insurance business (both demand side and supply side), operational issues, such as weakness in credit rating, lack of experience, and uncertainty in legal framework (i.e. creditor rights, resolution).

We note in this report the following possible solutions, which are related and complementary, to addressing 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.

Infrastructure as a Defined Asset Class: The ADB, OECD and IIF have all identified inadequate infrastructure investment as an impediment to economic growth and capital market development in APEC economies. The IIF in particular has identified 10 impediments to infrastructure investment,[21] which are:

- underdeveloped infrastructure asset class;
- lack of transparency and information flow;
- mismatch between available infrastructure investment options and investors' risk profile;
- policy uncertainty (including concerns about investor/creditor rights);
- banking sector adjustments (both regulatory and industry developments);
- lack of alignment between long-term investors' risk profile and policy measures designed to encourage investment;
- high capital charges on infrastructure investment;
- short-term focus of institutional investors, prompted in part by certain regulatory policies and initiatives;
- lack of standardization in debt instruments; and
- underdeveloped capital markets.

Infrastructure assets are generally long-term in nature. Current regulatory treatment of infrastructure assets is largely focused on the form of the instrument rather than the underlying substance, i.e., it is determined by whether the investment is in fixed income, equity or some form of private placement. A holistic approach to the asset class does not really exist. Typically, infrastructure investment will have diverse sources of funding at both the construction and operating phase. Varied regulatory treatment and the lack of a holistic approach have constrained private sector willingness to make such long-term investment. Promotion of infrastructure investment as a defined asset class – in coordination with increased government spending and adoption of PPP financing vehicles will go a long way in promoting long-term infrastructure investment.

Increased Fiscal Spending: Asian economies should be encouraged to expand government spending on infrastructure projects both as direct fiscal outlays and as part of public-private partnerships (PPPs). The post-1997 "Washington Consensus" solution to the Asian crisis is out of date and should be replaced with active encouragement of increased infrastructure spending. An appropriate balance to

[21] Institute of International Finance, *Top 10 Impediments to Long-Term Infrastructure Financing and Investment* (https://www.iif.com/system/files/CAIM_Top_10_Impediments_to_LT_Investment_1.pdf).

increased fiscal spending and sound public debt management should be adopted. The European Monetary Union's "Maastricht criteria" of a 3 percent limit on the fiscal deficit and a 60 percent of GDP cap on public debt could be a good place to start. The Maastricht criteria were observed largely in the breach in Europe, but most Asian sovereigns are prudently well below the criteria.

Increasing Asian investment, while keeping Asian public finances within the Maastricht 3 percent and 60 percent limits, offers a potential solution to the dearth of investable assets in Asia. In addition, arguably a distinction could perhaps be made between deficit spending which does not build up assets - for instance social security spending - and deficit spending which does such as infrastructure. While both have value, the former increases net debt where the latter does not, although this would require governments and rating agencies to at least qualitatively take into account not just the liability side of an economy but its asset side as well.

PPP Financing Vehicles: Increasing fiscal spending will not, by and of itself, increase investment ratios in Asia or deepen capital markets. The APFF identified a series of financing vehicles that can help mobilize long-term retirement savings into investable assets to provide long-term retirement savings returns to consumers as well as propel economic growth to the next stage of development. The 2015 APFF Progress Report identified the following financing vehicles: infrastructure funds, business trusts, guarantees, build-operate-transfer (BOT), securitization, and co-financing with multilateral development banks.[22]

For example, guarantees for construction risks is an example of an effective tool to facilitate cost efficient financing by long-term investors. Infrastructure financing needs long-term debt funding from insurers and pension funds. However, according to the feedback from long-term fund managers, construction risks are typically a key bottleneck for long-term investors. The Credit Guarantee & Investment Facility's (CGIF) Construction Period Guarantee (CPG) covers 100 percent of the principal and interest payments until the project is completed. It would allow long-term investors to participate from the inception of the project. With CPG, the greenfield project bond's rating should not be constrained by construction risks. CGIF looks forward to syndicating to other guarantors (banks) to participate in the future.

Recommendation

- ***APEC economies should promote infrastructure investment as a defined asset class to facilitate more holistic regulatory treatment that can encourage more private sector infrastructure investment. Inadequate infrastructure investment has been a long-standing issue in emerging Asia (outside of China), as documented by the ADB and others. At the same time, Asia's huge savings are still being mostly channeled into short-term bank deposits and government***

[22] See pages 41-42 of the 2015 APFF Progress Report to the APEC Finance Ministers (https://www2.abaconline.org/assets/2015/APFF%20Progress%20Report%20and%20Appendices%202015-08-25.pdf).

securities in mature markets. Promotion of infrastructure as a defined asset class will help bridge the gap between Asian savings and investable long-term assets.

Construction Period Guarantee by CGIF

On 1 July 2016, the Credit Guarantee & Investment Facility (CGIF), a trust fund of the ADB, announced the launch of its Construction Period Guarantee (CPG), a new guarantee product aimed at addressing concerns of construction risks from conservative long-term investors about greenfield infrastructure projects.

Besides assuring investors of the completion of construction works, CPG is designed to frame the boundaries of risks during the construction period to acceptable levels. This assessment framework that underpins CGIF's CPG product is envisaged to drive the quality of the regions' projects to higher levels in particular with respect to mitigating construction-related risks.

CGIF is now in search of a suitable project in the ASEAN region to roll out a pilot implementation of CPG. While it will still take considerable effort to conclude the first CPG supported project bond from this point, the benefits anticipated from its success will accrue for many years to come. This will represent a significant milestone for the development of project bonds and local currency bond markets not only in CGIF's focus countries but globally as well.

(Source: CGIF)

Regulatory/Accounting Gap

In an environment with adequate supply and access to long-term investments, there are hurdles to invest in these assets from the regulatory and accounting perspectives. Key issues include:

- lack of coordination between pension policy and tax and securities regulations;
- investment policies that lack sustainability and risk management measures to achieve adequate returns;
- the incentives and disincentives that arise from regulatory and accounting regimes with respect to insurers and pension funds' engagement in providing retirement and longevity solutions;
- impact of economic accounting and the choice of measures on pension funds and products to serve the needs of aging societies; and
- how regulatory requirements may take into account, in coordination with the private sector, the diversity of social security systems, needs and consumer behavior and development stages across the Asia-Pacific region.

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 IAIS on the global risk-based 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.

Address by the Honorable Tharman Shanmugaratnam, Deputy Prime Minister and Chairman, Monetary Authority of Singapore, Global Insurance Forum on 13 June 2016

As the host of International Insurance Society (IIS)'s Global Insurance Forum that took place in Singapore on 13 June 2016, the Honorable Tharman Shanmugaratnam delivered the welcome address and highlighted infrastructure financing as one of the three major opportunities for the insurance sector: infrastructure financing, catastrophic insurance and cyber insurance.

The following is the part of his speech regarding infrastructure financing:

First, infrastructure financing. It is a huge opportunity in Asia. Whichever infrastructure you look at – transportation, communication and power links, water and environmental sustainability – in every area the needs are growing, the need to remove bottlenecks to economic growth and social development are growing.

Traditionally, it has been a sector that has been financed by governments and banks. Governments will be constrained in the future, across the region. Although banks currently have ample liquidity, they too will over time become more constrained. So that combination of governments and banks isn't going to be able to cope with the rapid growth in financing for infrastructure in the future.

This is why institutional investors – insurers, pension funds and other long-term investors – have become very important. For insurers, infrastructure is an attractive asset class. It is attractive as a potential diversifier of assets, and has the potential to provide reliable inflation-linked returns over time, and with low correlation to other conventional assets.

But we need quality data for infrastructure to take off as an asset class for long-term investors. We need quality data for reliable performance benchmarks to be constructed, and to allow long-term investors to perform asset allocation on a reasonably reliable basis. That quality data doesn't yet exist but it is being put together by the EDHEC Infrastructure Institute in Singapore. By the end of this year they expect to have usable performance benchmarks, including for unlisted infrastructure debt and equity. The data has not been transparent, especially for privately-held investments, it has not been put together, and this is what EDHEC is doing. So that's one dimension of it. Getting the data together to allow institutional investors to allocate a desired portion of funds to infrastructure as an asset class.

Second, the regulatory treatment for insurers has to evolve so as to make possible long-term investments, including infrastructure investment. Some rethinking is already underway globally on the design of capital frameworks for insurers. It has to be aimed first of all at ensuring that individual insurers are on a sound prudential footing, not just for the short term but for the long term. It should also support efforts to ensure that our economies are able to grow and to remain healthy, which is also in the interests of every player. This means we have to support long-term investment.

The European regulators are already in close consultation with the industry, on providing some measure of capital relief for long-term investments. Globally too we have to do this. We need lower risk charges for equity held by insurers for the long term, including infrastructure. I hope globally regulators will arrive at an understanding that makes this possible. Here in Singapore, MAS is engaging closely with the industry in this regard. We will be having another round of public consultation at the end of this month on our risk-based capital framework for insurers (or "RBC 2"). The aim is to finalize our proposals for providing capital relief for long-term assets which match the cash flows of the liabilities. We will also be raising questions, as part of this review, on the merit of having a different set of risk charges for infrastructure in particular.

(*Source: Monetary Authority of Singapore*)

Based on the list of identified issues and recommendations, the APFF has continuously engaged in active outreach and dialogue to exchange views on regulatory and accounting matters with policymakers, international and regional institutions such as the IAIS, International Accounting Standards Board (IASB), OECD, ADB, ASEAN, as well as various insurance regulatory authorities in the Asia-Pacific.[23] In particular, the ASEAN Insurance Council (AIC) contributed to the APFF's effective and efficient communication with the ASEAN Insurance Regulators and Industries. The APFF also coordinates closely with OECD and ADB on related initiatives.

The main regulatory issues identified by the APFF, in particular for insurance companies and corporate pension funds, are the following:

- ***Bank-centric regulations***: Insurance Capital Standards should take into account the specific nature of the insurance business. It should 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. High-risk charges for long-term investments may discourage insurers to provide such investments. Regulation should be designed in a way to promote and incentivize insurers' roles to help stabilize the financial system and their ability to manage risk efficiently.

- ***Short-term oriented economic regime***: An economic based regime should have a long-term vision. Short-term oriented economic valuation may produce significant volatility for long-term business, which may not be relevant to the insurers' capacity to meet long-term obligations. While economic information may be a useful indicator in determining future long-term direction, Insurance Capital Standards should avoid introducing a regulatory regime that would require immediate regulatory actions in response to short-term market fluctuations. Measures should be taken to mitigate impact on long-term protection business and the assets supporting such contracts.

- ***"One-size-fits-all" model***: International standards should be principles-based and aim to achieve comparable outcomes by taking into account the region's diversity. Due to the differences in business models and existing regulatory frameworks, the application of prescriptive international standards would not ensure the overall comparability or level playing field in the region.

Regulators are now generally aware of the issues and considering various measures to mitigate their negative impact on long-term business and investments. They have noted the relevance of APFF's recommendations in tackling the challenges of the current low-interest rate environment that a number of APEC economies are facing. The APFF was requested by a number of regulators in the region to provide inputs.

[23] These include authorities in Indonesia, Japan, China, Singapore, Malaysia, Brunei, Mexico, Chile, Peru, USA, Canada, Korea, Chinese Taipei, Thailand, Vietnam and Hong Kong.

Some examples of regulatory measures in APEC economies (e.g. C-ROSS in China), appear largely in line with the APFF recommendations.

Key messages from Dr. Zhao Yulong, Deputy Director, China Insurance Regulatory Commission (CIRC) in Hong Kong on 13 July 2016

During the APFF Insurance and Retirement Income Work Stream Meeting that took place in Hong Kong on 13 July 2016, Dr. Zhao Yulong, Deputy Director General of Finance and Accounting, Solvency Department, CIRC, made a presentation on the China Risk Oriented Solvency System (C-ROSS), which was implemented in China in January 2016.

The following are some key messages from his presentation:

C-ROSS is not aiming to be an advanced solvency regime but a suitable one for China's current market development stage.

Differences stemming from fundamental institutional characteristics of jurisdictions are difficult to overcome with a one-size-fits-all approach. Global regulatory convergence can begin with regional convergence among jurisdictions having similar market features.

There is no best solvency system but only the most suitable solvency system for:

- the current stage of market development;
- business models to fulfill insurance needs and long-term finance needs; and
- level of maturity of associated markets.

(Source: CIRC)

The ABAC comment letter urged the IAIS to take the necessary time to develop high quality standards rather than compromise on quality to meet an ambitious deadline, noting that it may allow the IAIS to benefit from experience of numerous regulatory changes implemented or developed in the EU, USA and many other economies in the Asia-Pacific. The IAIS has subsequently revised the timeframe and is now taking sufficient time and several steps in developing ICS. The APFF intends to monitor its development and assist them as appropriate in standard setting and implementation to reflect perspectives from the Asia-Pacific region.

The issues above are also relevant to accounting standards. Additional comments on accounting by the APFF included the following:

- ***Volatility in balance-sheet***: Under the accounting regime based on the current market, short-term volatility tends to be significant for long-term business and may not provide useful information for long-term investors, who wish to determine such investments that are good in the long run, rather than appear good at a given moment. Valuation should reflect the long-term nature of business activities. In particular, the interaction between assets and liabilities should be properly reflected. The scope of contracts for which the insurance liabilities and the related assets are consistently measured and presented, reflecting the assets-liabilities interaction could be expanded to include all contracts, including those where all or part of the cash flows are dependent on returns from underlying items. Choice of discount rate should be reflective of the business model of the issuers of the contracts.

- ***Volatility in income statement***: Short-term fluctuations in the statement of profit or loss may distort the relevance of the information on performance for the period, where such fluctuations are irrelevant for predicting the cash flows of the entity. A wider use of Other Comprehensive Income (OCI) both in assets and liabilities should be permitted to better reflect the long-term nature of the business. Nevertheless, the use of OCI should be optional taking into account different business models, in order to avoid accounting mismatch between assets and liabilities.

- ***Business activities***: Financial statements are more relevant if standards reflect how an entity conducts its business in terms of (a) the unit of account, (b) the selection of a measurement basis for an asset or a liability and related income and expenses, and (c) presentation and disclosure, including items of income and expenses in OCI. Consideration of business model may provide a faithful representation of the economic reality and result in more relevant information.

- ***Consistency and transition requirements***: Treatment of changes in estimated cash flows and that of discount rates should be consistent to reflect economic reality and to provide relevant and useful information to users. The retrospective measurement of Contract Service Margin (CSM) for existing and past long-duration contacts would be extremely burdensome and costly and often practically impossible due to lack of data, and may have significant financial impact. Flexibility should be given in adopting transition requirements to reduce operational difficulties and minimize financial impact at transition. One solution may be to take a full prospective approach.

- ***Complexity and presentation***: In order to avoid practical burdens and costs on preparers, unnecessary complexities should be removed. It would improve understandability for users. One measurement for all insurance contracts should be used without bifurcation of cash flows, in order to reflect how contracts are designed and managed. As for presentation, the metric should be comparable to conventional accounting practice to maintain comparability and avoid competitive disadvantage for insurers using the International Financial Reporting Standards (IFRS). The metric should reflect the needs of general users.

The APFF held bilateral meetings with some IASB Board Members and Staff to exchange views on insurance contracts as well as conceptual framework. The IASB welcomed the opportunity to share perspectives with institutions from the Asia-Pacific region and engage in constructive discussions on key issues, since it may ultimately facilitate the implementation of IFRS in the region. As a result, we observed some improvements in the proposed IFRS.

- The IASB is revising IFRS4 Phase I to allow insurers under certain conditions to defer applications of IFRS9 to address the mismatch between assets and liabilities, arising from the different effective dates of IFRS9 and IFRS4. This change would be in line with the APFF recommendation to promote consistent measurement of assets and liabilities. The final standard is expected to be issued in September 2016.

- The IASB is also working on the IFRS4 Phase II on insurance contracts. After the Board has completed key decisions, it is now in the drafting phase. Field testing with some selected insurers is planned this summer. The final standard is expected to be issued in early 2017.

- Through Board discussions and dialogue with stakeholders, the IASB has made changes 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. A number of requirements were streamlined. These changes would address some of the issues identified by the APFF.

Remaining key issues include unit of account, and scope for variable fee approach. While the IASB made some favorable changes on these two points, there are some technical issues yet to be addressed. The APFF intends to be involved in drafting and implementation process, in cooperation with the European and North American industry representatives, who share similar concerns, and assist the IASB in delivering the final standards to reflect economic reality and long-term nature of the business, and not dis-incentivize insurers' long-term investments and business.

Lastly, the APFF identified regulatory issues other than insurers' solvency regime, such as investment regulations and pension funds, and securities and capital market regulations that may affect the ability of the insurers and pension funds to undertake long-term investments. For example, restrictions or excessive reserve requirements for derivatives may be an important constraint for long-term investment in infrastructure. These problems are often beyond the responsibility of insurance regulators, and the coordination with other financial sector regulators and industry (i.e. banking, securities) would be crucial to address this topic more holistically.

Participation in conferences and seminars

In addition to the above-mentioned dialogue with stakeholders, APFF contributed or plan to contribute in 2016 to a number of events by providing speakers and panelists and helping in the design of the agenda[24].

[24] 2016 Conferences on the Insurance and Pension Topics contributed or to be contributed by the APFF:

- OECD/ADBI Roundtable on Capital Market and Financial Reform, Tokyo, 22-23 March
- G20/OECD Roundtable on Institutional Investors and Long-Term Investment, Singapore, 25 April
- Workshop & Dialogue with Trade and Financial Officials & Experts on Islamic Infrastructure Investment

Annual Indonesia Infrastructure Finance Conference, Jakarta on May 24

The APFF provided speakers for the 2nd Annual Indonesia Infrastructure Finance Conference organized by Euromoney in Jakarta on May 24. The objective was to make the case on the panel and in meetings around the conference to regulators and members of the Indonesian government regarding:

- the need for long-dated investment opportunities for Indonesian pension funds and insurers which would enable them to construct and sell long-dated retirement solutions - long dated policies can only be prudently sold if long dated matching assets exist;
- the attractiveness of Indonesian infrastructure projects for international pension funds and insurers who already invest globally in infrastructure and have a similar need for long-dated assets;
- the benefits for Indonesian infrastructure projects of having both domestic and international long-term patient capital in their financing mix; and
- recommendations on how the above may be achieved.

The APFF has found the economy-by-economy approach to be effective, and intends to coordinate with external bodies, including IIF, and will follow this case up through the ASEAN Insurance Council.

While APFF undertook numerous dialogues with insurance regulators in 2015 and 2016, it is clear that the circle of stakeholders that influence the adoption of recommendations is much wider. Which stakeholders are the most influential (e.g. trade bodies, regulators, infrastructure investors, central banks) will vary, but APFF will try to reach as many of them as possible in the future.

Recommendations

- ***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***

Platform, Kuala Lumpur, 10 May
- Indonesia Infrastructure Finance Conference, Jakarta, 23-24 May
- Global Insurance Forum, Singapore, 12-15 June
- OECD/ADBI Roundtable on Insurance and Retirement Saving, Tokyo, 22-23 June
- APFF Symposium Public-Private Collaboration to Develop APEC Financial Markets –Achievements and Way Forward, Shenzhen, 1 August
- NAIC Asia-Pacific International Forum, San Diego, 23-25 August.
- APIC ASEAN+JAPAN Pension Funds and Social Security Systems Summit, Manila, 21 September
- IIF International Colloquium on International Insurance Regulatory Issues, Basel, 22-23 September
- East Asian Insurance Congress, Macau, 11-14 October
- APEC Finance Ministers' Meeting, Peru, 12-15 October
- IAIS Annual Conference, Asuncion, 10 November
- ASIFMA Annual Conference, Singapore, 17-18 November
- ASEAN Insurance Summit/ASEAN Insurance Regulators Meeting, Yogyakarta, 21-24 November.

long-term investments and retirement solutions, barriers of 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.

- ***It is 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 conferences organized by network members and to convene workshops in the region involving a wide range of stakeholders.***

Mobilizing Islamic Finance for Infrastructure Investment

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. The global Islamic capital market has been growing in size and depth across jurisdictions, with a combined market capitalization of around USD23.2 trillion spread across 58 jurisdictions covered by the Dow Jones Islamic Market World Index (as of the time of this Report's writing).[25]

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 APIP and the APFF. In May this year, the government of Malaysia, in collaboration with ABAC Malaysia, hosted an APFF workshop to develop concrete proposals.

Participants in the workshop 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 from takaful and Islamic pension funds, in infrastructure projects in APEC economies.

- I3P would be a pathfinder initiative involving initially Brunei, Malaysia and other interested APEC member economies, that can 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.

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[25] *Dow Jones Islamic Market World Index Fact Sheet* (https://www.djindexes.com/mdsidx/downloads/fact_info/Dow_Jones_Islamic_Market_World_Index_Fact_Sheet.pdf).

- I3P would be an initiative under the FMP to be championed jointly by Brunei, Malaysia, ABAC, and any other interested APEC economies. The pathfinder economies will also invite ADB and the World Bank Group to support the initiative. It would seek the collaboration of related FMP policy initiatives such as the APFF and APIP, both of which will mobilize experts from their respective networks, as well as other institutions such as the Islamic Development Bank and the Sustainable Infrastructure Foundation.

- 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 and maintenance of a directory of experts participating in the initiative.

- Actual work would be undertaken by public, private, international and academic experts 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.

- During the initial stage, I3P would have the following work streams to address key issues identified during the first two workshops: (a) development of common definitions of Sharia-compliant infrastructure projects and financial instruments acceptable in all pathfinder economies, taking into account the proposals to define infrastructure and real assets and their incorporation in an enabling Islamic investment infrastructure environment referred to later in this report; (b) development of Islamic hedging instruments; (c) development of financial instruments suitable for infrastructure investment from Islamic pension funds and takaful; (d) identification of discriminatory tax policies in pathfinder economies and actions to address them; (e) development of a virtual place to coordinate directory of experts, definitions, funders, participating economies, qualifying infrastructure projects to help progress various initiatives under this platform; and (f) collaboration with the International Infrastructure Support System (IISS) in developing project preparation tools for participating economies.

Recommendation

- ***APEC should establish an Islamic Infrastructure Investment Platform (I3P) as a pathfinder initiative to 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 from takaful and Islamic pension funds, in infrastructure projects in APEC economies. I3P should address in its work the definitions of infrastructure and financial instruments, Islamic hedging instruments, financial instruments for pension funds and takaful and discriminatory tax policies. It should also create a directory of experts, definitions, funders, participating economies and qualifying infrastructure projects, and collaborate with the International Infrastructure Support System (IISS).***

DEEPENING THE REGION'S CAPITAL MARKETS

The APFF's information in capital markets self-assessment templates have been a useful tool for the Philippines to assess how easy it is for investors to access information about our market. We look forward to using them in discussions with investors in the future and support this initiative toward building transparency across the Asia-Pacific.

Ephyro Amatong -- Commissioner, Securities and Exchange Commission, Republic of the Philippines

We welcome the support of the APFF and would see APFF involvement as an important signal that the industry in the region is very much engaged and supportive of the Asia Region Funds Passport initiative.

A senior official of the Australian Treasury

Promoting Liquid Repo and Derivatives Markets

Capital markets, particularly local currency bond markets, are of crucial importance for the region's financial stability, economic growth, and the efficient channeling of long-term savings to investment in long-term assets like infrastructure. Various initiatives have successfully brought about the rapid growth of Asian government bond markets, a key stage in the process of capital market development. The next stage, which is increasing market depth and liquidity, will be critical to the sustained growth and development of the region's capital markets.

Last year, Finance Ministers decided to include the development of capital markets as one of the deliverables under the CAP. The APFF has organized its work program in line with the Ministers' direction to promote the development of liquid repo markets, legal and documentation infrastructure facilitating risk mitigation, transparency of capital markets (issuer disclosure, bond market data, investor rights in insolvency), and a regional securities investment ecosystem to promote cross-border investment in capital markets. APFF stakeholders are engaging with regulators in individual member economies as well as with the ASEAN+3 Bond Market Forum (ABMF), the ASEAN Capital Markets Forum (ACMF) and the Pacific Alliance.

The development of liquid, deep, classic bond repurchase (repo) markets is critical to the deepening of the region's capital markets and the real economy. The APFF seeks to drive public-private collaboration in the development of classic repo markets in Asia. This collaboration allows public and private sector stakeholders to share international best practices and develop new lines of communication that may not otherwise exist. As a result, this enables participants to identify and address impediments in legal architectures, improve market infrastructure, standardize market conventions, and provide industry best practices.

Deep and liquid repo markets help deepen capital markets and support the real economy. Specifically, repo markets support the real economy by:

- increasing liquidity in local currency bond markets;
- expanding the pool of available finance and improving financial institutions' ability to meet their financing needs;
- mitigating the reduction in market liquidity due to regulatory change;
- allowing the movement of securities across the region;
- improving investor confidence and participation in local bond markets;
- reducing funding costs for governments, pension funds, asset managers and other long-term investors;
- developing market infrastructures that are necessary to serve the real economy; and
- offering hedging tools which contribute to risk management

There are several policy issues to address in fostering an enabling environment for repo markets. In particular, the necessary conditions to develop cross-border repo markets are:

- deep bond market liquidity;
- sound legal framework that protects creditors' rights in bankruptcy and insolvency proceedings;
- robust investor participation;
- neutrality in tax treatment; and
- efficient and interoperable market infrastructures to support cross-border repo markets.

In August 2015, the Asia Securities and Financial Markets Association (ASIFMA) and the International Capital Markets Association (ICMA) launched their ASIFMA-ICMA Guide on Repo in Asia.[26] APFF also continues to engage with domestic regulators and governments to encourage the further development of classic repo markets and increasing secondary market liquidity in the region. In particular, APFF is providing a platform for holding repo market workshops in interested economies to share the findings of the Repo Best Practices Guide, as well as exchange ideas for local adoption of the best practices and recommendations.

Over the counter (OTC) derivatives play critical roles in capital markets, as 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

[26] The report is divided into two sections: Section I on "Laying the Policy and Regulatory Foundation for Efficient Asian Repo Market Development" and Section II by ASIFMA and ICMA "Best Practices across the Repo Trade Lifecycle". It takes a comprehensive view of all aspects of repo market development in Asia and addresses three key issues: 1. Why is it important to develop the repo market in Asia? 2. What are the main challenges facing the repo market in Asia? 3. What is best practice in the repo market - and how can it be implemented?

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.

The sub-stream dealing with these issues aims to help policy makers and regulators identify and address key issues that affect the effectiveness and connectivity of OTC derivatives clearing houses in the region. An important focus of this work is the legal and documentation infrastructure required to support safe, efficient markets. Contractual legal certainty and protection of collateral rights are vital building blocks that allow capital markets to facilitate capital investments, extend credit and provide business risk mitigation hedging tools.

The International Swaps and Derivatives Association (ISDA) assisted Bank Negara Malaysia (BNM) in the drafting of proposed legislation that culminated in the Netting of Financial Agreements Act which was enacted on March 30, 2015 to ensure legal enforceability of close-out netting arrangements. This brought to an end a period of netting unenforceability that had begun following the Asian Financial Crisis in 1998 and showed the efficacy of public-private collaboration.

More recently in May 2016, the Parliament of Australia passed the Financial System Legislation Amendment (Resilience and Collateral Protection) Bill 2016. Amendments to Australian law were necessary to ensure that termination/close-out rights under derivative arrangements can be exercised and to stabilize the financial system with more certainty provided to the operation of financial market infrastructure. The amendments also removed legal uncertainty in relation to security enforcement to support access to international markets and liquidity by Australian regulated entities and life companies. Cooperation between the Australian Council of Financial Regulators, King & Wood Mallesons and ISDA were crucial to the success of this legislation.

One driver behind this legislation is the looming implementation (September 2016 for the biggest global banks and March 1, 2017 for all other significant global financial institutions) of mandatory margining for non-cleared OTC derivatives under guidelines and timelines set out by the Basel Committee on Banking Supervision/ International Organization of Securities Commissions (BCBS-IOSCO), though subject to national regulators' interpretations. These margin regulations will have tremendous impact on pricing in the less liquid APEC derivatives markets, which makes enforceability of close-out netting and collateral rights crucial to containing costs and continued market viability.

ISDA has been engaged in a series of road shows across the Asia-Pacific region to highlight to both local regulators and market participants what the new margin requirements are and what the impact will be. Last year's APFF forum in Manila in collaboration with ABAC, ADB and ASIFMA was one such presentation. This year, ISDA has already made presentations in 9 Asia-Pacific economies and by year end, will have presented in 12 or more economies.

ABAC has been collaborating with the ADB, ASIFMA and ISDA to assist the Philippines and Indonesia in the development of their repo and derivatives markets, using the APFF platform. An APFF workshop on the Philippines' repo and derivatives markets was held last November in Manila, while another workshop on Indonesia's repo market was held last April in Jakarta. Discussions are ongoing to hold workshops in China on bond, repo and derivatives markets and in Indonesia on its derivatives market later.

A topic that may be added to future APFF work is the impact of Basel capital rules on APEC financial markets. Basel III rules were a necessary response to the financial crisis, but what the cumulative impact of other capital rules in the pipeline, including Fundamental Review of the Trading Book (FRTB), Net Stable Funding Ratio (NSFR), the Standardized Approach for Measuring Counterparty Credit Risk (SA-CCR), and the leverage ratio will not be easily quantified, though it is expected that the impact will be disproportionately felt in the less developed financial markets.

Recommendation

- ***Member economies are encouraged to collaborate with APFF in undertaking workshops on development of classic repo and derivatives markets to enable the effective use of hedging instruments and improve bond market liquidity. The APFF also welcomes collaboration from other interested organizations in financing and convening these activities.***

Information for Capital Market Investors

Trust is the cornerstone of a sound capital market. It enables investors to put their resources for use by others who can help build and grow the economy. The quality, comparability and availability of information are key ingredients in bringing together buyers and sellers of both debt and equity. Policy makers and regulators can help expand investor activity in their capital markets by collaborating with the private sector to identify the information that investors need.

The APFF created a series of self-assessment templates that can serve as tools to facilitate and shape public-private sector dialogue on information for investors in the region's debt markets, especially those for non-bank corporate debt. These templates are not intended to be lists of prescriptive measures, but are rather designed to provide foundations for meaningful conversations contrasting what an international investor might expect and what is available in any given market. Importantly, they give public policy officials a mechanism through which to explain why certain information may or may not be available, or where investors can find it.

APFF's work on this issue is organized around three categories – disclosure, bond market data and information on investor rights in insolvency. These three categories broadly align with information that may be relevant to successive phases of the investment process: initial purchase, secondary market trading, and rights in the event of default.

The Philippines' Securities and Exchange Commission supports the templates and has filled them out internally. They continue to work with representatives from APFF and see the templates as a worthwhile initiative. The templates have been sent to the Deputies Chair of the ASEAN Capital Markets Forum and will be tabled as an agenda item at the Deputies' Meeting in September. There will be immediate follow-up with regulators from Malaysia, Vietnam, Thailand and Indonesia after the ACMF Deputies' Meeting in September.

Recommendation

- ***More member economies should engage with APFF in using the self-assessment templates on information for capital market investors to help expand the investor base.***

Supporting the Asia Region Funds Passport (ARFP) Initiative

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.

In 2015, the APFF convened several discussions with representatives from the international asset management and financial industry, as well as experts from the legal and consulting professions and public 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 works toward 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.

- *Inter-operability with other regional frameworks*: It is important that the ARFP is flexible enough to interoperate with other regional investment schemes, such as the Hong Kong-China mutual recognition regime and the ASEAN Collective Investment Scheme (CIS) Framework 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.

- *Dispute resolution*: In the European funds passport arrangement – the Undertakings for Collective Investment in Transferable Securities (UCITS), mechanisms exist to the European Securities and Markets Authority (ESMA) resolves 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 the 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 Passport 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 Passport ARFP Funds beyond the member economies. ARFP Funds should eventually be permitted to be offered into non-member economies the same way UCITS funds may be distributed in non-EU jurisdictions.

The APFF welcomed the signing of the Statement of Understanding for the ARFP in Cebu last September by six economies and the signing of the Memorandum of Cooperation early this year by Australia, Japan, Korea, New Zealand and Thailand. Discussions among industry representatives in the APFF concluded that, with the decision by Japan in 2015 to join the original members of the scheme, the ARFP has made significant progress. APFF collaborators conducted informal discussions with regulators in Hong Kong, Singapore and Chinese Taipei and spoke at an Industry-Regulator Dialogue in Sydney to encourage other member economies to join the ARFP.

The APFF also established a Tax Task Force that completed an assessment of the key tax metrics in actual and potential ARFP participating jurisdictions to help regulators understand the detailed tax implications of ARFP and made this assessment available to regulators in participating jurisdictions.[27] Based on this

[27] A detailed summary of the tax metrics for ARFP economies can be found in http://www.ey.com/Publication/vwLUAssets/EY-update-asia-region-funds-passport-the-state-of-tax/$FILE/EY-update-

assessment, the Tax Task Force makes 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.

Recommendations

- ***More member economies should join the Asia Region Funds Passport (ARFP) by signing the Memorandum of Cooperation. APFF also 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.***
- ***It is recommended that participating regulators continue to engage the private sector on the implementation of the ARFP.***

asia-region-funds-passport-the-state-of-tax.pdf. The APFF thanks EY for permission to reproduce the tax information contained in their EY Tax Alert dated 8 August 2016.

MODERNIZING THE ASIA-PACIFIC FINANCIAL MARKET INFRASTRUCTURE

Enabling Regional Securities Investment Ecosystem

Facilitating flows of capital across the region's markets is a key factor for economic growth in the region. The APFF's work on FMI[28] 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 FMI. The central objective is to promote cross-border portfolio investment flows with market practice, standards and platforms that can selectively harmonize market access and repatriation practices, improve the inter-operability, liquidity and connectivity of domestic and cross-border financial markets, and reduce systemic risks.

Three significant issues pose major challenges to cross-border portfolio flows in the region:

- a relatively high volume of change, across different economies, in different focus areas and at different paces;
- the focus on later-stage market development (T+2) rather than the pre-requisites and enablers (standards, automation and harmonization of platforms); and
- increasing KYC focus that introduces more opportunities to improve efficiency and new issue areas are emerging from cross-border tax compliance reporting, data privacy and security concerns

To address these issues, APFF will undertake workshops and dialogues that will focus on helping interested economies identify effective ways to develop a regional securities investment ecosystem. In particular, APFF will focus on the following:

- In view of aggregate planned changes over the coming 2-3 years in market access, clearing and settlement and repatriation across the region, APFF will undertake discussions on (a) the creation of a regional roadmap of upcoming regulatory and market changes; (b) the feasibility of a regional private-public-market infrastructure forum that will exchange views on these developments; and (c) the feasibility of longer consultation and notification periods of key regulatory and market changes.
- APFF will focus on a more streamlined regional KYC/AML documentation compliance and process, recognizing the layers of global intermediary chain and practices between securities issuers and the ultimate beneficial owners. APFF will undertake discussions on (a) regionally and globally aligned standards for KYC/AML documentation collection and reporting; (b) the use of third party

[28] Financial market infrastructure (FMI) covers the recording, clearing and settlement of payments, securities, derivatives and other financial transactions.

industry utilities for a centralized KYC/AML electronic depositary; and (c) minimum standards for data privacy, protection and security and cross-border flows.

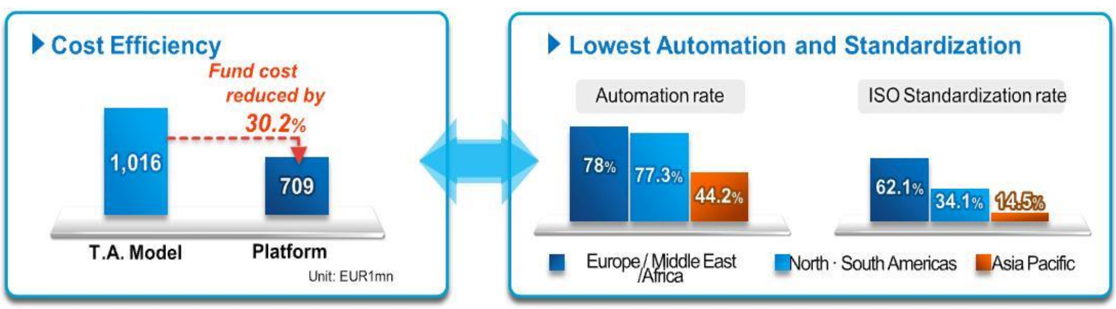
This year, APFF has also started discussions on increasing the operational efficiency and automation level of fund services. This is an important post-trade industry segment that supports the flow of investments into funds and cross-border fund passport initiatives such as the ARFP. Through higher levels of industry standardization and harmonization, including the establishment of industry utilities, APFF is seeking to address the highly manual processing prevalent in the funds servicing industry today that deploys valuable resources in areas that can be readily replaced by outsourcing or offshoring where permitted. Where outsourcing and offshoring does not take place, the fund management industry can suffer from uncompetitive avoidable operational costs.

Table 3: Fund servicing activities and challenges

After an investor has invested; fund servicing activities		Challenges (selected)
Transfer Agent	Facilitates investors' investments [handles cash flow, regulations like KYC/AML/CRS/FATCA]	**Transfer Agent (T.A.)**: Manual, non-straight thru flows per asset manager. Flows include: • KYC/AML/CRS/FATCA investor due diligence • Physical forms; subscription, redemption and switching • Payments; cheques, foreign currencies, Non-standardized message formats Non-standardized fund information
Middle Office	Interfaces trade, post-trade and reconciliations	
Fund Accountant	Reports the investments' value [valuation and accounting focus]	
Custodian	Safe-keeps invested assets [maintain efficient and effective linkages with FMIs]	

Hence, the focus of the work would be how to reduce the costs of investment processing and promote greater skills specialization. Standardization of funds information can improve transparency of fund information that can facilitate financial literacy, lower the cost of financial inclusion, permit more efficient cross-border funds investments and indirectly encourage capital market activity. Industry-level use of "algorithmic advisors" that search across many different funds to fit investors' risk-return needs can become possible as a result of standardization of funds information and messaging infrastructure.

Figure 1: Value released from greater automation



APFF hopes to engage central securities depositories (CSDs) in the region that are either actively promoting greater automation of funds servicing and industry utilities or investigating these possibilities. Having formed a regional forum called the Asia Fund Standardization Forum (AFSF), they are seeking to align their work more with regional funds passport initiatives like ARFP, as well as to form a more complete ecosystem to include regulators and asset managers that can drive a more holistic agenda.[29]

Recommendation

- ***APFF proposes to convene a regional symposium in 2017 on the development of a roadmap for improving the regional financial market infrastructure. Discussions could focus on (a) the harmonization of market access and repatriation practices; (b) improving the inter-operability, liquidity and connectivity of domestic and cross-border financial markets; (c) reducing systemic risks; and (d) creating a securities investment ecosystem that can promote cross-border portfolio investment flows across member economies.***

Facilitating innovation in financial market infrastructure

The growing role of Fintech raises new opportunities and risks with respect to the development of the region's FMI, which is also particularly important in promoting cross-border operations of MSMEs. As governments begin to grapple with the issues that Fintech raises, government-industry collaboration will be important to understand the impact of developments and determine appropriate regulation that allows innovation while protecting the consumer and limiting systemic risk. Inter-agency cooperation will be particularly important as issues go across government departments. Cooperation between governments will also be important to reduce the risk of different standards developing across APEC economies.

Fintech is affecting a large number of traditional financial services offerings. Regulators continue to have the responsibility of learning from the problems of the past and addressing issues in traditional financial services and service providers. The rise of Fintech brings a new challenge for financial regulators to create a regulatory regime that is adaptable and flexible enough for the present and the future, given the rapid rate of change in technology.

The APFF can provide a platform for industry, public sector and multilateral stakeholders to help policy makers and regulators identify approaches and ways forward to address issues in three key areas. These cut across Fintech developments in APEC and where we believe early work and progress can be made

[29] Led by the Korea Securities Depository (KSD), the AFSF has a core membership of about 13 CSDs from the region and five advisory participants.

under the APFF process – cybersecurity, Know-Your-Customer (KYC) rules and electronic payments (e-Payments) – through a series of workshops.

- *Cybersecurity*: Fintech has the potential to leverage data and new risk modeling techniques to lower security risks. Cybersecurity remains a major risk as Fintech evolves, but better technology that can properly combat new risks raised in a digital world could provide a solution. Robust cybersecurity can ensure that high levels of security are maintained and enhanced at the economy level even amidst increasing cross-border data flows. Discussions will focus on best practices and opportunities and risks involved in various policy options.[30]

- *KYC*: Identity is critical for people to bank and transact. However, mobile phones and data are powering new ways to open up access and participation. In order to provide effective, safe, and secure products, service providers need to be able to easily and reliably identify consumers. Technology can help to provide better forms of identity using biometrics, transaction details, or physical tokens (i.e. mobile phones). Discussions will focus on the myriad of KYC regulations across the region, creating interoperable baseline standards for KYC, exploring new ways of identity verification as well as tiers of KYC appropriate to the type and value of transactions.[31]

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[30] Specific work and deliverables for the next 12-36 months under the Cybersecurity agenda item include:

- Conduct at least three workshop sessions exploring how Fintech represents both a challenge and opportunity for enhanced cybersecurity
- Convene at least two workshop sessions focusing on how Fintech can be a risk management tool that promotes healthy lending to consumers and SMEs to enhance inclusive growth in APEC
- Convene at least two workshop sessions on Fintech tools for private sector and regulators to monitor and manage risks of complex products such as synthetic securities and derivatives
- The FMI Fintech Substream will aim to hold all workshop sessions in one comprehensive workshop.
- Agenda setting and planning shall take place by ABAC I or II, with the workshop to be held around the time of ABAC II or III each year.
- Produce during the first 12-18 months 'best practices' aimed at APEC developing economies that will promote benefits of improved cybersecurity.
- During the subsequent 19-36 months FMI Fintech Substream participants will identify and carry out work with APEC developing economies to translate best practices into practical and beneficial outcomes.

[31] Specific work and deliverables for the next 12-36 months under the KYC agenda item include:

- Conduct at least three workshop sessions that examine how current KYC practices can be an obstacle to inclusive growth in APEC
- Convene at least three workshop sessions focusing on how innovation in Fintech and related technology, such as smartphones, offers new ways to conduct KYC
- Hold at least two workshop sessions exploring how traditional financial institutions can benefit from use of Fintech-based KYC to accelerate benefits of innovation and inclusive growth within APEC
- Convene at least two workshop sessions that examine how a more flexible KYC, for example a tiered approach based on transaction size and type, can promote Fintech that benefits APEC
- The FMI Fintech Substream will aim to hold all workshop sessions in one comprehensive workshop.
- Agenda setting and planning shall take place by ABAC I or II, with the workshop to be held around the time of ABAC II or III each year.
- Produce during the first 12-18 months 'best practices' aimed at APEC developing economies that will promote benefits of improved methods of KYC.
- During the subsequent 19-36 months FMI Fintech Substream participants will identify and carry out work with APEC developing economies to translate best practices into practical and beneficial outcomes.

- *e-Payments*: E-Payments have a major impact by lowering transaction costs, increasing transparency, and making transfers of money faster and more efficient. Restrictions on e-Payments, including amounts that can be processed, the type of entity that can engage in processing, location of processing facilities, or the technology that can be used will impact growth, equity, and innovation. Cross department cooperation is also important. Drawing on the latest APEC e-Payment Readiness Index,[32] discussions will explore conditions under which economies can promote healthy disruption and encourage firms and consumers into the e-Payments infrastructure, and how e-Payments systems can make compliance with AML and CTF rules, and identification and payment of taxes and other processes easier, less costly, less time-consuming and more transparent.[33]

Recommendation

- ***Policy makers and regulators should participate in APFF workshops on cybersecurity, Know-Your-Customer (KYC) rules and e-Payments to facilitate innovation in the region's financial market infrastructure.***

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32 The report may be downloaded from https://www2.abaconline.org/assets/2016/3%20Shenzen/Resource_Material_-_Fintech_E-payment_Readiness_Index_20161.pdf.

33 Specific work and deliverables for the next 12-36 months under the E-Payments agenda item include:
- Update data findings of the 2015 APEC Fintech E-Payment Readiness Index for 2016
- Conduct at least three workshop sessions exploring the results and learnings of the APEC Fintech E-Payment Readiness Index
- Convene at least two workshop sessions focusing on innovation and healthy disruption in E-Payments
- Hold at least two workshops that promote adoption by APEC SMEs of E-Payments
- The FMI Fintech Substream will aim to hold all workshop sessions in one comprehensive workshop.
- Agenda setting and planning shall take place by ABAC I or II, with the workshop to be held around the time of ABAC II or III each year.
- Produce during the first 12-18 months 'best practices' aimed at APEC developing economies that will promote benefits of E-Payments.
- During the subsequent 19-36 months FMI Fintech Substream participants will identify and carry out work with APEC developing economies to translate best practices into practical and beneficial outcomes.

HARNESSING FINTECH TO ACCELERATE THE DEVELOPMENT OF FINANCIAL MARKETS

Tremendous changes are sweeping today's financial landscape. The growing use of Fintech, which includes mobile money, shared ledger technology[34] (including block chain), big data, artificial intelligence, electronic platforms, advanced analytics and automated processes, among others, is challenging established business models. New players are entering markets long dominated by traditional financial service providers as the latter are now embracing new technologies to help them face the threat of disintermediation.

Innovations such as mobile and agent banking and peer-to-peer lending have already demonstrated the power of technology to help 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 block chain and artificial intelligence have potential applications that could revolutionize financial service firms' efficiency and responsiveness to customer needs.

Policy makers and regulators have begun to respond to these developments, in compliance with mandates to promote financial stability, protect consumers and privacy and maintain the integrity of financial systems. However, for the APEC Leaders' and Finance Ministers' aspirations to make financial systems more inclusive, efficient and responsive to the region's vast financing needs to be met, a balanced and coherent approach that maximizes the benefits of innovation while adequately addressing emerging risks and concerns will be required.

Traditional financial institutions have long been unable to serve the financing needs of large numbers of businesses and individuals across the developing region. Technological developments have spurred innovations that are being harnessed to serve these needs, first in mobile and agent banking. As the development and convergence of new technologies and improvements in broadband infrastructure accelerated in recent years, a new wave of innovation has started to sweep the financial industry, challenging traditional business models.

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[34] While the terminology in this space continues to evolve and various publications use "distributed ledger", "shared ledger" and "block chain" interchangeably, this report uses terms based on the following definitions offered by the UK Government Chief Scientific Adviser in the report *Distributed Ledger Technology: beyond block chain* (link: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledger-technology.pdf):

- **Shared ledger** (the most generic and catch-all term for this type of technology): any database and application shared by an industry or private consortium or that is open to the public.
- **Distributed ledger**: a type of database spread across multiple sites, economies or institutions, where records are added when participants reach a quorum and stored one after the other in a continuous ledger, rather than sorted into blocks.
- **Block chain**: a type of database that takes multiple records and arranges them in a block, where each block is chained to another using a cryptographic signature. Block chains may be ***permissioned*** (participants are pre-selected) or ***unpermissioned*** (open to everyone). Bitcoin is an example of an unpermissioned ledger.

The Fintech landscape, however, is a very large and complex one that is affecting financial services across payments, insurance, deposit-taking, lending, capital raising, investment management and financial market infrastructure. It also represents an extensive digital realm where traditional financial institutions, start-ups, e-commerce, Information and communications technology (ICT) companies, market infrastructure players, investors, accelerators, incubators, and consumers intersect with each other.

The development of Fintech is being driven by front-end technologies (e.g., open application programming interface or API, mobile money), front-end financial services (e.g., peer-to-peer or P2P lending), back-end technologies (e.g., block chain, big data and predictive analytics, artificial intelligence, identity management and advanced fraud and security) and back-end financial services (e.g., faster payments, alternative underwriting). These have created disruptions in various parts of the financial sector. Examples include:

- *Lending*: emergence of new non-bank lenders, rise of marketplace lending; merchant advances; supply chain and internet finance; enhanced credit underwriting and decisioning; integrated platforms for consumer financial empowerment.

- *Fund/asset transfers and payments*: rise of electronic (mobile, cards) payments for the unbanked; faster payments initiatives; rise of virtual commerce globally; advanced fraud and security methods; potential of block chain/distributed ledger technology; and rise of P2P and cross-border transfer platforms.

- *Insurance*: rise of insurance for the unbanked through mobile access; use of new technologies to drive down operational costs; ecosystem partnerships and new business models; enhanced analytics for better risk decisioning.

The currently predominant Fintech firms are still powered by technologies that have already been around for some time. These include digital platforms and applications, use of wider data sets to customize financial services and products (including locational, personal consumption, payment and income data), and algorithms that enable rapid interpretation of data and more efficient transactions. While newer technologies, such as distributed ledger technology and block chain and artificial intelligence, are attracting much attention due to the huge potential for disruption, their commercialization is still limited and involves a relatively very low volume of financial transactions.

Fintech presents enormous opportunities to promote financial inclusion, especially in emerging Asia and Latin America, which all together continue to host a significant portion of the world's unbanked population, not to mention those who are underbanked. Moving from paper-based transactions to retail and Government-to-Public (G2P) payments, e-commerce, cross-border remittances and MSME collections to digital payments, for example, is estimated to result in as much as USD 400 billion in annual benefits.[35]

At the same time, the introduction of new technologies into financial services is now raising some questions related to regulatory issues. These include consumer protection, particularly in the case of new service providers; identity management; data management and data protection with respect to the use of big data and algorithms; network and system stability and cyber security and cyber risk. Regulatory approaches across the region are varied and continue to evolve. Nevertheless, regulators are being encouraged to take a light regulatory touch for new Fintech start-ups to support innovation.

Technologies are emerging that enable financial market players to respond more effectively to regulatory requirements. Participants discussed the incorporation of regulatory requirements into technology protocols that is promoting the automation of the regulatory process, the evolution of regulatory models and how industry, policy makers and all relevant regulators can collaborate to build a robust and coherent ecosystem for inclusive financial innovation.

Beyond this, however, is the broader question of how policies and regulations should respond to the rapid development of Fintech. As innovation gives rise to a new ecosystem of financial institutions, services and market infrastructure, policies and regulations will also need to evolve. In addition to striving toward the critical regulatory goals of financial stability, cyber security, data privacy, consumer protection and the fight against crime and terrorism, they will also need to promote a coherent policy and regulatory environment that allows the financial sector to support broader goals, including financial inclusion, continued innovation and the growth of trade and investment across the region.

In particular, Fintech raises a number of key issues for government and regulatory agencies.

- Digital data and advanced systems need to be managed by highly-trained professionals backed up by reliable IT infrastructure. This requires introduction of advanced IT education and investment in IT and basic infrastructure.

- Data collected needs to be effectively utilized by businesses to enhance competitiveness and efficiency while ensuring privacy of individuals. Data can help firms better meet customer needs as well as improve their management and growth through better analysis of performance against targets. This needs to be balanced by protection of personal information, which is a key concern for citizens, governments and firms. However, where the balance between data access and privacy protection lies may be perceived differently in emerging markets, where a large portion of the population are financially excluded, compared to advanced markets, where the majority of the population have

[35] Menekse Gencer (PwC), *The Fintech Landscape* (based on data from Citi-Imperial College Digital Money Index).

access to formal financial services.

- Data needs to be secured against fraud, criminal activity and natural disasters in an increasingly complex and interconnected world. There is a need to strengthen digital systems against fraud, cyberattacks by domestic and international criminal actors, and natural disasters. Regarding natural disasters, banks are diversifying risks through establishment of offshore back up centers.

- Cross-border data transfer for processing and storage leads to discussions about onshore versus offshore activities. Benefits of data transfer include enabling round-the-clock provision of service, early release of cutting-edge products, cost reduction and greater efficiency. Security would require the establishment of highly-protected and well-staffed and equipped data centers. Harmonization of data definitions would also be needed to enable accurate interpretation across markets.

- A level regulatory playing field is needed for both incumbents and new entrants to manage risks across the system and equalize costs. One way to promote this is by rethinking current regulatory approaches that focus on institutions rather than functions and considering the regulation of a product or service in the same way regardless of provider. It is also important to encourage firms to innovate and assist products and services being brought to market through light touch regulation with intervention whenever it becomes necessary to achieve broader regulatory goals.

- Regulators need to focus on means of permitting automation of processes that are currently manual in order to lower costs sufficiently and permit wider financial inclusion.

As financial services move more rapidly into the digital space and cybercrime evolves from methods like phishing that target human risk factors to complex malware coded to exploit gaps in technology and process, more areas of vulnerability will emerge, from client access applications and communication tools to technology partnerships. Collaboration between regulators and industry is key to increasing awareness of cyber security, reducing financial and reputational damage and serving clients. Firms are currently approaching this on three fronts.

- The first is through partnerships within the Fintech ecosystem to collaborate, perform due diligence and provide transparency to ensure visibility and control of the end-to-end chain of product and service offerings.
- The second is through technology, controls and training and awareness within the firm to protect the confidentiality, integrity and availability of client data and its information assets.
- The third is providing technical advisory, training and tools to enable customers to better protect themselves.

The potential of Fintech to drive inclusive growth is huge, but technological innovations can also magnify the potential for harm to consumers, the economy and financial systems. This increases the burden on regulators to keep pace with the innovations in the market, which will enable them to make regulations more effective in enhancing stability and enabling innovation and growth, and to strike the right balance between adapting to the local contexts across different markets and developing a regulatory model that can be applicable in many markets and thus able to contain compliance costs and provide seamless scale.

These factors are driving the need for new models of business partnerships, including between regulators and industry. The challenge in developing regulatory tool sets for these new models is that it is difficult to expect regulators to be able to model and forecast developments and trajectories, while we are still in the early stages of Fintech development and the private sector is still learning what works. The lack of coherent and well thought-out regulatory responses to Fintech may expose financial systems to significant risks. One approach to addressing this issue is the use of "sandboxes," establishing areas where experimentation can occur and regulators and policy makers can participate or freely observe and better understand new technologies and business models, thus reducing the risks of curtailing innovation through premature regulation.

In addition, there is the possibility of a few successful players becoming too dominant as finance and technology come together to reach more deeply into all aspects of the economy and society and underpin growth and social development. In this case, we may face a new digital divide, where the gap between those who are able to participate in this market and those who are unable to do so could grow very quickly and which could be more subtle and different in nature from previous dichotomies of haves against have-nots. Preventing this from occurring will need to involve not just updated regulatory frameworks, but also consumer education and protection as well.

Most importantly, proportional and more flexible regulatory approaches will be needed to enable strong growth and continued innovation. This could take the form of recognizing fundamental areas where benchmark standards for such areas as privacy, security and AML may be required, and regulating these more strictly and aligned across the region, while employing light-touch (e.g., "watch and wait") regulatory approaches in areas where risks of systemic damage are low, in order to enable more cross-border trade. Key enabling factors for this would include the valuation of data (including understanding the importance of open data and the potential for self-sovereign data), the need for data categorization; and the fundamental importance of measurements and frameworks for measuring digital trade and Fintech.

To discuss how APEC can harness Fintech to build bigger, robust and inclusive financial markets, ABAC convened two APFF Roundtables on both sides of the Pacific. The first Roundtable was hosted by PayPal on 24 February 2016 in its corporate campus in Silicon Valley, and the second was co-organized on 15 July 2016 with ASIFMA and hosted by the Hong Kong Monetary Authority (HKMA). The

Roundtables brought together policy makers and regulators, experts and practitioners from major financial institutions, Fintech start-ups, consulting firms, multilateral institutions and academe. Both events concluded that for APEC member economies to benefit from Fintech, all these stakeholders need to agree on a shared vision and work closely together.

Recommendation

- ***It is recommended that APEC Finance Ministers establish a regional platform to bring together stakeholders from the public and private sectors to address in close collaboration with each other key issues arising from the development of Fintech. Through this platform, they could identify concrete ways to help member economies harness financial innovation to build bigger, robust, inclusive and integrated financial markets. These stakeholders should include representatives from the industry (Fintech startups and major financial institutions, related service providers, associations and experts), public sector (government and regulatory agencies, relevant APEC fora) and major international organizations.***

FOSTERING CONTINUED DIALOGUE AND RESEARCH ON THE FUTURE OF FINANCIAL REGULATION

I have found the APFF to be an effective organisation to engage with financial services stakeholders and welcome their role in providing opportunities for regulatory and business dialogue.

Gerard Fitzpatrick – Senior Executive Leader, Investment Managers and Superannuation, Australian Securities and Investments Commission (ASIC)

The rapid and continuing evolution of financial markets and ongoing efforts by Asia-Pacific economies to modernize their financial systems pose major challenges to policy makers and regulators. In the context of APEC Finance Ministers' aspirations to develop inclusive and efficient financial markets that can support strong, sustainable and balanced growth, financial regulatory reforms will need to be based on up-to-date and accurate assessments of market conditions, as well as deep insights on how policy and regulatory measures will affect the behavior of market players and the direction of market developments.

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. Since the last report of activities, five major developments have been undertaken by members of the work-stream, as follows:

23rd March 2016 – The Asia-Pacific Financial Forum Industry/Regulator Dialogue – Progress on the Asia Region Funds Passport and Regional Financial market Integration – convened in Sydney and included Australian policy makers, regulators and senior representatives from the Australian and regional finance industry. The forum provided an opportunity to update participants on developments in APFF in regard to the ARFP, repos, derivatives, hedging tools and cross-border securities investment ecosystems.

The Forum noted:

- that Australia, Japan, Korea, New Zealand and Thailand would sign the Memorandum of Agreement in April;
- possibilities for extending ARFP over time with others;
- the value of APFF in providing data and advice on taxation arrangements in the region as they impact on ARFP;
- the importance to further integration of capital markets using management risk reform and of system liquidity based on repo markets through open market operation – however, some regional repo markets are relative small;
- capital market reforms should avoid leading to the fragmentation of markets;
- hedging and netting reduced exposure to country and systemic risk and synchronized financial standards are important in reducing frictional costs;
- corporate debt markets in the region are generally underdeveloped and action

is required on bail in/bail out;

- community attitudes have changed on tax avoidance and governments will need to coordinate to handle base erosion and profit sharing and multinational tax avoidance;
- the need for a stronger Asian voice in the Financial Stability Board; and
- business needs to clearly identify the costs and benefits of reforms in proposing reforms to governments.

10th May – Workshop on Developing an Islamic Infrastructure Investment Platform (13P) – convened in Kuala Lumpur and included participants from Islamic banks, regional regulators and financial advisors.

Of particular interest was the expansion of the role of Islamic finance in cross-border funding of infrastructure. Issues discussed included the importance of infrastructure for economic development, social services, and trade and investment and the potential for Islamic finance to expand its role in the financing of infrastructure in the region and beyond, and the challenges in doing that arising from differing interpretations of that which constitutes Sharia compliance arising from contrary established practices in and among jurisdictions.

Recommendations arising from consideration of work completed by APFF participants and developed in conjunction with Harvard University that would help overcome the problems arising from differing interpretations of Sharia compliance, as noted at the workshop, are as follows:

(a) define infrastructure as “facilities, structures, equipment, or similar physical assets – and the enterprise that employ them – that are vitally important, if not absolutely essential, to people having the capabilities to thrive as individuals and participate in social, economic political, civic or communal households or familial, and other roles in ways critical to their own well-being and that of their society, and the material and other conditions which enable them to exercise those capabilities to the fullest”;

(b) a Real Asset for the purpose of providing asset-backed Islamic investment is defined as: “An asset that has a physical presence and a tangible economic purpose, for example, roads, sea ports, airports. Power utilities, or has an underlying asset base which is physical and has a tangible economic purpose, for example, a concession agreement to operate or a lease on a physical asset”;

(c) that infrastructure as defined in recommendation a) is deemed to be a Real Asset as defined in recommendation b) that investments in infrastructure and in accordance with fairness, with sharing of risks, and benefits, with the principle of materiality, with no *riba*, and with exclusion of activities prohibited by Sharia laws are deemed to be Sharia compliant;

(d) that an enabling environment for Islamic investment in infrastructure be developed.

The publication of a paper "Getting Real about Islamic Finance" by Harvard University and a member of the APFF Work Stream, Dr. Allan Wain, of CP2.[36]

28th June 2016 - A workshop on Regional Financial Regulatory Collaboration - convened by a group represented on the APFF work-stream from the Melbourne University research team with the Reserve Bank of Australia, the Commonwealth Treasury, the Australian Prudential Regulatory Authority and the Australian Securities and Investment Commission.

This workshop provided an opportunity for the Melbourne research group to outline the research work it is undertaking and which is a major piece of work being developed under the Linkages and Structural work stream. The Coordinator of the work-stream also participated and outlined the work and the role of the APFF. Australian policy makers and regulators exchanged views on the issues under consideration by the research team.

The following main points were discussed at the workshop:

- collaboration between financial regulators in the Asia-Pacific region and challenges;
- collaboration between Australian financial regulators and Asian regulators
- impact of technological advances;
- relationship between global integration and regional integration;
- relationship between the Asia Region Funds Passport and multinational agreements;
- developments on ASEAN banking integration framework;
- assessing regulatory harmonization and collaboration; and
- the role of APFF and its reporting responsibilities to ABAC and to the APEC Finance Ministers' processes.

The discussions noted the following key points:

- Challenges to increased collaboration include tensions between sharing regulatory control and retaining sovereignty; the need to increase mutual trust between regulators and disparities of development and lack of resources impact on the depth and extent of regulatory collaboration with some developing economies in the region.

- However, there are strong relationships developing at regulatory level in the region and the exchange of information between them is important and more emphasis is being placed on capacity building in the region by Australian regulators.

- Fintech and distributed ledger technology cross-border disputes will need to be

36 The web-link to the paper is: http://www.law.harvard.edu/programs/lwp/pensions/publications/GETTING%20REAL%20ABOUT%20ISLAMIC%20FINANCE%20FINAL%2043016.pdf.

managed by a higher power that is ultimately responsible when disputes or problems occur.

- Issues about whether technology can provide efficiencies on a commercial scale.
- There is a strong Asian influence on technology developments in the fintech space.
- While there is greater inclusion of Asian economies in global standard setting platforms there remains a US/European domination over decision-making.
- There is a level of complementarity between the funds ARFP and regional/global trade agreements.
- There is a sense that the ARFP will build trust between the parties involved and create an incentive for others to join the regime.
- The APFF is a useful mechanism in advancing the importance of the work of the ARFP.
- The ASEAN banking and integration framework could face difficulties over deposit insurance and deposit preference arrangements.
- There are opportunities to further consider Basel liquidity requirements and their application in Asia.
- Difficulties in quantifying cost/benefits of harmonization and collaboration beyond the theoretical premise about the merits of non-distorted markets; however, obvious benefits arising from collaboration over institutional failures and the belief that coordination will reduce the risks of failures emerging.

On-going work by the Melbourne University Research Group – This is focused on examining from a multi-disciplinary perspective the regional architecture for financial regulation in Asia and, in particular, on the various ways in which regional coordination and integration can be strengthened.

The workshop noted above was an important part of the research program with the objectives of developing better understanding for academic research participants of processes, experiences and issues in regional financial regulatory collaboration; the identification of potential research areas arising from the experience of Australian regulators in cross-border collaboration and to provide Australian regulators with insights on regulation harmonization being developed by the Melbourne research group.[37]

The Research team is planning a conference on 7 December 2016, hosted by the

[37] Working papers and journal articles have been published and are available on the research project web-site: https://government.unimelb.edu.au/financial-regulation-in-asia.

Singapore Management University in Singapore "Finance in Asia: Integration and Regional Coordination".

Recommendations

- ***It is recommended that APEC Finance Ministers encourage policy makers and regulators involved in the region's financial markets to participate in dialogues and programs organized by academic and research institutions together with the financial industry to further the work of APFF on regional financial architecture and regulations.***

- ***It is recommended that APEC Finance Ministers welcome the APFF's work on definitions of infrastructure and real assets in the context of developing an enabling environment for investment by Islamic financial institutions in infrastructure and encourage their adoption.***

CONCLUSION

The acceleration of reforms to enable the Asia-Pacific region to more effectively finance growth, especially in emerging markets, has acquired even greater importance and urgency in light of most recent developments. While a return to sustained economic dynamism that has characterized the region over the past decades remains elusive in spite of massive fiscal and monetary stimulus, the fragile recovery is under threat on several fronts.

Stagnating growth in major emerging markets, continued weakness of consumer demand in developed economies and heightened uncertainties due to the combined impact of a spike in terrorist activities, raging conflicts in the Middle East, the refugee crisis, the UK's decision to leave the EU, lingering unease about the health of Southern European economies, and the growing unpredictability of US and European politics have made investors more cautious than ever before in recent memory.

Emerging markets in APEC can help avert economic stagnation and spark an optimistic change in mood if they are able to unlock the potential of their huge populations, resources and savings and unleash greater investment and consumption among a broader base of households and enterprises. Just as inadequate financial systems and services have been seen as the main barrier to the growth of small enterprises, supply chains, consumption and infrastructure, serious reforms to create more inclusive and efficient financial markets will be the key to the next stage of development of the region's emerging markets.

Modernizing the region's financial systems will involve addressing a wide range of challenges. These include small businesses' and low-income households' lack of access to finance, difficulties in attracting long-term funding for infrastructure, the lack of deep and liquid capital markets and long-term institutional investor base, and continued vulnerability of communities and supply chains to the impact of natural disasters, among others.

An important issue is the deficiency of legal systems within the region in supporting trade and investment and a strong business environment. Considerable divergence of legal frameworks and regulatory practices is a major obstacle to cross-border business. In many economies, significant legal and regulatory reforms and improvements in transparency, enforcement and capacity of the judiciary and legal professionals are needed to enable the effective delivery of financial services, especially in the context of today's digital economy.

The Asia-Pacific region needs bigger, robust and inclusive financial markets to enable its economies to leap across the middle-income trap and join the ranks of affluent economies. The pathway forward over the next few years has been indicated by the Finance Ministers in the CAP – a collection of tangible key objectives that require close public-private sector collaboration to be met. The APFF provides a platform for collaboration in several of these initiatives.

Building on its 2014 Interim Report and 2015 Progress Report to APEC Finance Ministers, the APFF this year advanced its work on several initiatives, through a number of roundtables, workshops and conferences across the region, work stream discussions, and collaboration with APEC finance officials. This year, the APFF supported the Finance Ministers' efforts to begin implementing the initiatives implementation of the CAP. The APFF also continues to undertake activities assigned by the CAP in the areas of capital market development, financial infrastructure for MSMEs and trade and supply chain finance.

To accelerate the progress of these initiatives, this report recommends the following to the Finance Ministers:

- It is recommended that APEC member economies work with FIDN to develop modern full-file and comprehensive credit information systems and regionally consistent legal and institutional frameworks for secured transactions and insolvency that can facilitate the use of movable assets as collateral. These will help expand MSMEs' access to finance and enable them to increase their contributions to regional integration. This effort should involve: (a) the convening of workshops in individual economies bringing together public and private sector stakeholders and experts; (b) advisory activities and seminars to support legal and policy reform and modernization of collateral and credit registries; (c) outreach activities to educate MSMEs, lenders and other market participants on how they can benefit from these opportunities; and (d) support for the pathfinder projects on cross-border sharing of commercial and consumer credit reports among credit bureaus within existing legal and regulatory frameworks, the development of the credit information data dictionary and the baseline analysis of credit information sharing in APEC member economies.

- It is recommended that APEC member economies collaborate with APFF in holding public-private dialogues across all relevant agencies and stakeholders on regulatory issues and emerging facilitators of trade and supply chain finance. These should aim to promote effective and regionally consistent implementation of capital and liquidity standards, greater awareness of Know-Your-Customer, Counterparty Due Diligence and Anti-Money Laundering rules. They should also focus on the expanded use of technology including electronic supply chain management platforms, wider use of Bank Payment Obligations (BPOs) and related working capital management techniques, and facilitating market education and information exchanges on the use of regional currencies such as the RMB.

- APEC member economies are encouraged to identify economies and perils of priority as an initial step in promoting private disaster insurance schemes as envisaged under the CAP. This may be undertaken through a workshop in early

2017 with broad participation from finance ministries and related public sector stakeholders, multilateral institutions and the private sector through APFF.

- It is proposed that the Finance Ministers' Process complete the stock-taking on availability of risk exposure data as a step toward the development of regional risk-sharing measures. This may be undertaken through the aforementioned workshop in conjunction with the previous recommendation.

- It is proposed that the drafting of an APEC roadmap for DRFI be initiated as envisaged under the CAP, involving experts from the public and private sectors and multilateral institutions.

- It is proposed that stakeholders in the APEC Finance Ministers' Process undertake activities in 2017 to complete the roadmap for expanding microinsurance coverage as envisioned under the CAP. Discussions on the roadmap may include the following elements: (a) 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 develop products that are appropriate for MSMEs;[38] (b) development of policy frameworks for establishing risk pools and other DRFI instruments, provision of incentives, use of technologies, and mechanisms for public-private sector cooperation; (c) creation of the legal basis for the provision of mandatory insurance coverage to MSMEs; (d) capacity building for public and private stakeholders regarding product development, distribution and promotion of MSME insurance; (e) development of data management on catastrophic events; (f) establishment of central business registries with hazard mapping and catastrophe coverage for enterprises; (g) proportionate regulation to support a wide range of insurance products designed for MSMEs; (h) mechanisms for public-private dialogue in developing products and solutions for responses to and mitigation of disaster risk; and (i) implementation, financing and coordination.

- APEC economies should consider the establishment of mandatory and scalable retirement systems. A mandatory system provides the scale necessary to effectively channel the region's huge savings currently concentrated in short-term bank deposits into longer term institutional investments and productive assets. Retirement savings can help professionalize the financial system through deeper domestic capital markets and expanded roles of long-term investors such as insurers and pension funds. Scalability is provided by implementing strong tax incentives to encourage higher levels of retirement savings. Altogether the system promotes public financial awareness, ensuring a diverse range of retirement income products and improved financial security

[38] The toolkit highlights four steps: risk assessment, disaster risk management mapping, identification of gaps and exploration of disaster risk options. Throughout these steps, the framework supports the integration of microinsurance as a key part of broader disaster risk strategies.

for the region's rapidly growing number of retirees.

- APEC economies should promote infrastructure investment as a defined asset class to facilitate more holistic regulatory treatment that can encourage more private sector infrastructure investment. Inadequate infrastructure investment has been a long-standing issue in emerging Asia (outside of China), as documented by the ADB and others. At the same time, Asia's huge savings are still being mostly channeled into short-term bank deposits and government securities in mature markets. Promotion of infrastructure as a defined asset class will help bridge the gap between Asian savings and investable long-term assets.

- 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 of 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.

- It is 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 conferences organized by network members and to convene workshops in the region involving a wide range of stakeholders.

- APEC should establish an Islamic Infrastructure Investment Platform (I3P) as a pathfinder initiative to 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 from takaful and Islamic pension funds, in infrastructure projects in APEC economies. I3P should address in its work the definitions of infrastructure and financial instruments, Islamic hedging instruments, financial instruments for pension funds and takaful and discriminatory tax policies. It should also create a directory of experts, definitions, funders, participating economies and qualifying infrastructure projects, and collaborate with the International Infrastructure Support System (IISS).

- Member economies are encouraged to collaborate with APFF in undertaking workshops on development of classic repo and derivatives markets to enable the effective use of hedging instruments and improve bond market liquidity. The APFF also welcomes collaboration from other interested organizations in financing and convening these activities.

- More member economies should engage with APFF in using the self-assessment templates on information for capital market investors to help expand the investor base.

- More member economies should join the Asia Region Funds Passport (ARFP) by signing the Memorandum of Cooperation. APFF also 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.

- It is recommended that participating regulators continue to engage the private sector on the implementation of the ARFP.

- APFF proposes to convene a regional symposium in 2017 on the development of a roadmap for improving the regional financial market infrastructure. Discussions could focus on (a) the harmonization of market access and repatriation practices; (b) improving the inter-operability, liquidity and connectivity of domestic and cross-border financial markets; (c) reducing systemic risks; and (d) creating a securities investment ecosystem that can promote cross-border portfolio investment flows across member economies.

- Policy makers and regulators should participate in APFF workshops on cybersecurity, Know-Your-Customer (KYC) rules and e-Payments to facilitate innovation in the region's financial market infrastructure.

- It is recommended that APEC Finance Ministers establish a regional platform to bring together stakeholders from the public and private sectors to address in close collaboration with each other key issues arising from the development of Fintech. Through this platform, they could identify concrete ways to help member economies harness financial innovation to build bigger, robust, inclusive and integrated financial markets. These stakeholders should include representatives from the industry (Fintech startups and major financial institutions, related service providers, associations and experts), public sector (government and regulatory agencies, relevant APEC fora) and major international organizations.

- It is recommended that APEC Finance Ministers encourage policy makers and regulators involved in the region's financial markets to participate in dialogues and programs organized by academic and research institutions together with the financial industry to further the work of APFF on regional financial architecture and regulations.

- It is recommended that APEC Finance Ministers welcome the APFF's work on definitions of infrastructure and real assets in the context of developing an enabling environment for investment by Islamic financial institutions in infrastructure and encourage their adoption.

The success of these undertakings will depend on active participation and engagement from the public sector. APFF intends to provide a forum and informal network for dialogue and capacity building where they can interact on a regular and sustained basis with experts in relevant specialized and technical fields from the private sector and international and academic organizations. The APFF looks forward to close collaboration with the APEC Finance Ministers in achieving concrete results in advancing the various initiatives under the CAP.