REGAINING MOMENTUM

ENABLING FINANCIAL SERVICES TO CATALYZE INCLUSIVE, INNOVATIVE AND SUSTAINABLE RECOVERY

2021 Progress Report

Asia-Pacific Financial Forum ● Asia-Pacific Financial Inclusion Forum ● Asia-Pacific Infrastructure Partnership

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EXECUTIVE SUMMARY

With its wide-ranging economic impact, the COVID-19 pandemic posed an unprecedented challenge to governments and businesses all over the world. Vigorous responses from governments and central banks have succeeded in averting a major global crisis, but the pandemic and the responses to it have left various medium and long-term challenges in their wake. However, there are also opportunities that can be seized to find new paths to stronger growth. The pandemic has highlighted the importance of digital technology and provided a strong political impetus to address policies that can enable its wider application. The imperative to stimulate recovery through the financing of infrastructure offers opportunities to invest in a more sustainable future.

Many initiatives proposed by business that the APEC Finance Ministers have endorsed over the years were focused on reforms that can expand access to finance, modernize financial markets and enhance resilience and sustainability. This Progress Report covers the work and achievements of the Asia-Pacific Financial Forum (APFF), the Asia-Pacific Financial Inclusion Forum (APFIF) and the Asia-Pacific Infrastructure Partnership (APIP) in promoting the implementation of these reforms since the last APEC Finance Ministers' Meeting until the present and provides information on planned activities until the end of 2021. It focuses on three areas: (a) sustainable finance; (b) inclusive finance; and (d) financial resilience.

Achieved Policy Reforms

Several ***policy reforms*** improving MSMEs' access to finance proposed by ABAC in the past were completed by member economies with direct collaboration and support from APFF. These included the following:

- *The Philippines*: Launch of the secured transactions collateral registry in April 2021.
- *Viet Nam*: The issuance of Decree 21, which brings the secured transactions reform in line with the new Civil Code 2015, including the explicit recognition of transfer of claims, which is critical for the development of the factoring market.
- *China*: Consolidation of its moveable property registration into a single agency (Credit Reference Center of the People's Bank of China) on 1 January 2021. This completely replaced local level filings on inventory and other related assets.

Capacity-Building Activities

Capacity-building activities are important tools to ***provide member economies access to expertise and other economies' experiences in implementing priorities*** that form part of the FMP work plan. To this end, various dialogues and webinars were held to assist economies in the following areas:

- sustainable finance;
- financial inclusion;
- credit reporting, secured transactions and digital supply chain finance systems;
- valuation practices and standards;
- open banking;
- catastrophe bonds;
- circular economy infrastructure;

- innovative health care financing solutions; and
- digital market infrastructure.

Promoting Asia-Pacific Perspectives in Global Processes

The APFF participated in international discussions with global regulatory and industry organizations to share lessons and perspectives from its work in APEC economies and ***contribute to the shaping of global standards, frameworks and model laws*** that incorporate insights from the region into their formulation, and thus promote their applicability to the region's economies. These included discussions on:

- international alignment around sustainable finance and taxonomy;
- electronic registry design and operation;
- coordinated implementation of international standards on receivables finance;
- international standards on credit reporting;
- model law for factoring;
- coordination in practice of secured transactions reform and enhancing access to credit;
- framework to access ESG Value Creation;
- framework for digital trust and use of privacy enhancing technologies for cross-border activities;
- engaging the private sector in financial protection of critical infrastructure services;
- international accounting standards for insurance contracts and financial instruments; and
- insurance capital standards.

Tools for Reforms and Cooperation

The following documents were developed to ***provide tools for policy makers and regulators*** in translating high-level recommendations into concrete policies, regulations, collective actions and capacity building measures:

- *APEC Sustainable Finance Development Roadmap (first iteration)*;
- *Asia-Pacific Financial Inclusion Forum: Emerging Priorities in the COVID-19 Era – Proposed Actions for Policymakers and Regulators*;
- *APFF Digital Trade Finance Lab Combating Trade-Based Money Laundering Whitepaper*;
- *APFF Financial Market Infrastructure Whitepaper on the Legal Entity Identifier*;
- *APFF Whitepaper on Digital Identity;*
- *APFF Whitepaper on eSignatures;*
- *Suggested Actions to Implement eKYC*
- *Philippine Credit Information Study;*
- *Defining Resilient Futures for Micro and Small Enterprises through Digital Transformation;* and
- *APEC Health Care Financing Roadmap.*

The APFF work program also included a pilot project to test solutions for digitalizing micro and small enterprises in the Brunei-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA) and to identify possible policy and structural reform responses to support inclusive growth.

Support for ABAC in the Formulation of Recommendations

The APFF convened in partnership with ABAC four roundtables to ***assist the Council in formulating recommendations*** to Finance Ministers and Leaders. These focused on medium- and long-term monetary and fiscal stimulus for sustained growth, financial sector climate leadership, disaster risk insurance, and the role of finance in MSMEs' digital transformation. The APFF also organized the session on digitalizing trade of the ABAC Digital Symposium.

Conclusion

The pandemic and its aftermath have injected a sense of urgency representing an opportunity that is there to be seized. The APEC Finance Ministers' Process can take the lead in translating this sense of urgency into individual and collective actions to advance the implementation of these deliverables in the Finance Ministers' multi-year agenda. Much can be achieved by coordinating this with the work of the multilateral organizations and the business sector, as well other relevant APEC fora. Critical areas include measures to restore sustainable fiscal structures that will enhance the credibility and preparedness of economies to deal with future crises and measures to accelerate structural reforms that promote inclusion, digitalization and sustainability.

While much of the work of the APFF, APFIF and APIP was disrupted last year by COVID-19, the stakeholders of these initiatives have been able to rapidly embrace technology and innovation, and in 2021 the pace has increased with the growing uptake of these new ways of doing things by our counterparts in the public sector. As this Progress Report shows, these initiatives continue to provide support to economies in undertaking important reforms, especially in expanding access to finance. Individual economies and APEC fora are coming forward to make full use of these platforms for public-private collaboration to advance various initiatives related to digitalization and sustainability. In this context, we look forward to working with APEC Finance Ministers and other relevant authorities in seizing opportunities for undertaking concrete reforms and capacity building measures that will help our region regain its momentum by enabling financial services to catalyze inclusive, innovative and sustainable recovery.

INTRODUCTION

With its wide-ranging economic impact, the COVID-19 pandemic posed an unprecedented challenge to governments and businesses all over the world. Vigorous responses from governments and central banks have succeeded in averting a major global crisis. Even as vaccination is progressing and emergency measures are being drawn down in phases, economies are returning to growth, although this recovery is uneven and the pandemic and the responses to it have left various medium and long-term challenges in their wake.[1] During their 25 June informal dialogue, Finance Ministers and ABAC members especially highlighted the challenges of accelerating climate change and growing inequality in income and wealth distribution.

However, there are also opportunities that can be seized to find new paths to stronger growth. The pandemic has forced a major transformation in the way individuals, organizations and governments conduct their activities and accelerated the adoption of technology and innovation. In particular, it has highlighted the importance of digital technology and provided a strong political impetus to address policies that can enable its wider application. The imperative to stimulate recovery through the financing of infrastructure offers opportunities to invest in a more sustainable future.

Being at the center of all economic transactions, the financial services sector can play a critical role in catalyzing inclusive, innovative and sustainable recovery. Many initiatives proposed by business that the APEC Finance Ministers have endorsed over the years were focused on reforms that can expand access to finance, modernize financial markets and enhance resilience and sustainability. This Progress Report aims to review the status of these initiatives in the light of the "new normal" brought about by the pandemic and provides perspectives on the way forward.

The Asia-Pacific Financial Forum (APFF), the Asia-Pacific Financial Inclusion Forum (APFIF) and the Asia-Pacific Infrastructure Partnership (APIP) were established by the APEC Finance Ministers to serve as platforms for collaboration among the private sector, the public sector and international organizations to implement proposals that the Ministers have endorsed. These policy initiatives are under the umbrella of the APEC Finance Ministers' Process (FMP) and the management of the APEC Business Advisory Council (ABAC).[2] They are engaging a wide range and variety of firms and industry associations, regulatory agencies, and multilateral and academic institutions in the implementation of FMP initiatives, including the Cebu Action Plan (CAP).

These policy initiatives have (a) helped initiate legal, regulatory and institutional reforms in several economies;[3] (b) provided critical support to regional initiatives;[4] and (c) laid the groundwork for structural reforms through

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[1] Foremost among these challenges are huge fiscal imbalances and public sector debt, potential for inflation at a time of high emerging market debt levels, and large central bank balance sheets that all need to be addressed if economies are to achieve sustained recovery and growth. In addition, the pandemic has exacerbated the lingering and scarring effect of past crises that have seriously reduced many economies' growth potential. It has led to larger economic, social and gender gaps within economies, a larger gap between developed and more advanced developing economies on one hand, and the less developed economies on the other, and a financially weakened micro-, small and medium enterprise (MSME) sector.

[2] Their work has covered various areas that are being progressed under the FMP.

- The APFIF, established in 2010, has provided a capacity-building platform for developing economy regulators and officials in working with the private sector to promote access to financial services of low-income populations and micro- and small enterprises.
- The APIP, established in 2011, has been providing advice to officials on policy reforms and measures to develop bankable infrastructure projects that can attract private sector funding. It has contributed to key documents on infrastructure issues produced by the Finance Ministers.
- The APFF, established in 2013, has engaged with various public and private sector bodies in achieving FMP deliverables in areas ranging from data and credit information, secured transactions and insolvency regimes, trade and supply chain finance, capital markets, financial market infrastructure, disaster risk financing and insurance, development of the insurance and pensions industry and the long-term investor base, as well as health care financing.

[3] These include for example the passage of the new secured transactions law in the Philippines and the introduction of the new warehouse receipts bill in 2018; the enactment of the law on secured transactions in Brunei Darussalam in 2016; the development of legislative reform proposals on secured transactions in China, Thailand and Viet Nam; the development of reform proposals on credit information systems in Brunei Darussalam, China, Philippines, Thailand and Viet Nam; the introduction of the title-transfer repo in the Philippines in 2015, various specific improvements to regulations, laws, administrative structures and financing mechanisms affecting infrastructure in Indonesia, the Philippines and Thailand.

[4] These include the adjustment of rules in the Asia Region Funds Passport in 2016 that enabled Japan to join the scheme; the APFF study on tax implications of ARFP that helped accelerate the signing of the Memorandum of Cooperation; the pilot project for cross-border exchange of credit

the development of roadmaps, strategies, work programs and dialogue platforms.[5] The Cebu Action Plan provided a clear framework that identified specific initiatives and deliverables where these public-private platforms could play active roles, and helped focus their work and attract subject matter specialists from the private sector to help achieve the objectives set by the Finance Ministers.

This Progress Report covers the work and achievements of these initiatives since the last APEC Finance Ministers' Meeting hosted virtually from Kuala Lumpur on 25 September 2020 until the present and provides information on planned activities until the end of 2021. It focuses on three areas: (a) sustainable finance; (b) inclusive finance; and (d) financial resilience.

I. SUSTAINABLE FINANCE

In their July 2021 statement, APEC Economic Leaders' declared their intention to promote sustainable financing and reiterate the importance of economic policies, cooperation and growth that contribute to tackling climate change and other serious environmental challenges.

In 2020, ABAC proposed to the Finance Ministers the establishment of a public-private collaboration platform to help accelerate convergence of sustainable finance policies among APEC's member economies and strengthen the region's voice in the development of common global sustainability frameworks. At their annual dialogue, APEC Finance Ministers welcomed ABAC's recommendations on ESG finance and the proposal to establish the Sustainable Finance Development Network (SFDN) within the APFF.

The SFDN's focus is to address the major challenge facing the Asia-Pacific region today, which is the fragmented ESG landscape and the lack of applicable and practical common standards that can guide lenders and investors in incentivizing companies and organizations, especially in emerging markets, to progressively align their practices with sustainable development goals.

Capacity-Building Activities

The SFDN co-organized two capacity-building activities to support developing economies:

1. *Virtual workshop to assist Mexico in implementing the recommendations of the Task Force on Climate-Related Disclosure (TCFD)*. This virtual workshop, hosted by Banco de Mexico and the Mexican Sustainable Finance Committee, brought together various experts who shared global experiences and best implementation practices. This workshop was designed to benefit Mexican public officials and regulators and the members, observers and participants of the Sustainable Finance Committee working groups. The SFDN co-authored a proposal presented to Mexican stakeholders, including Banco de Mexico, to develop a private sector-led Mexican pilot of a TCFD Consortium following the successful Japanese model. It helped establish a bridge of communication between officials, regulators and TCFD stakeholders in Japan and their Mexican counterparts to support and advice Mexico throughout this process. The SFDN has been providing support and advice to Mexican stakeholders since then to assist in the implementation of this proposal. It will develop a proof-of-concept from the assessment of this experience to help other member economies explore this path.

2. *Collaboration with China to develop carbon markets*. The SFDN co-organized a High-Level Dialogue on Emission Peak and Carbon Neutrality hosted by the Municipal Government of Wuhan, held to launch China's central carbon quota registration center in the city, which together with the carbon-trading center in Shanghai will form the axis of the country's central carbon emissions trading market and is a key component of China's drive to achieve carbon neutrality before 2060. The SFDN has agreed to collaborate in the city's efforts to develop an industry around carbon trading particularly in financing and data. The SFDN will initially co-organize international events with global experts, and is exploring further opportunities for collaboration.

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scores among credit bureaus in the Mekong region in 2016; the successful and smooth mandatory exchange of variation margin for non-cleared over the counter derivatives in 2017; and the improvements on IFRS 17 rules on OCI and CSM.

[5] These include the Roadmap for Financial Market Infrastructure and the Roadmap for Microinsurance in 2017; and the APEC Roadmap for a New Financial Services Data Ecosystem, Strategy for the Digitalization of Trade and Supply Chain Finance and Essential Elements of an Effective Personal Insolvency Regime.

Tool for Reforms and Cooperation: The APEC Sustainable Finance Development Roadmap

The SFDN has developed the first iteration of an APEC Sustainable Finance Development Roadmap, which is appended to this Progress Report (Appendix A), for consideration by APEC Finance Ministers. This has been developed with inputs from global financial industry players, who provided their insights as to what actions and challenges need to be addressed for them to effectively play their role as catalyzers for companies to transition and align with SDGs. After an initial work consolidating a series of thorough industry papers,[6] the SFDN reached out to key global stakeholders to validate this work and to complement it with any additional suggested actions which, in their view, prevent an efficient engagement of the financial sector.

This Roadmap, which is a living document and will be continuously updated, looks at sustainable finance development from a holistic perspective. However, it acknowledges special considerations such as sequencing and timing, supplemental paths, applicability and relevance among jurisdictions and collaboration needs and opportunities among member economies. It provides flexibility for economies to define their own approach and prioritization strategy. The SFDN plans to support interested economies in advancing on their chosen path and sequencing process and with the action items in which they seek collaboration from the private sector.

The roadmap consists of two main sections, each with a specific goal:

- *Suggested actions section*: This summarizes and categorizes necessary actions to effectively incentivize the financial sector to mobilize capital and act as a catalyzer for companies in the region to transition and align with SDGs. This section suggests actions that will lead to a coherent development of sustainable finance within APEC, as well as to facilitate the efforts for convergence in approaches. It also refers to global developments that will have an impact on APEC economies, setting the stage for a coordinated effort in ensuring APEC economies' concerns and interests are taken into account.
- *The Building Blocks section (which will also be circulated as a standalone document to this Roadmap)*. This presents a detailed list of action items, categorized into building blocks and focus areas. This comprehensive (and periodically updated) list of actions is meant to function as a menu of possible measures and a framework to assist SFDN's work with APEC economies.[7]

Developing the SFDN's Agenda and Network

The SFDN conducted a series of conference calls with key regional and global sustainable finance stakeholders to seek feedback and suggestions on the SFDN's future agenda and to seek their collaboration.[8] Through these interactions, SFDN has been able to form an advisory committee of stakeholders playing active roles in global

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6 The development of this roadmap has been largely facilitated by the comprehensive work of SFDN's Advisory Committee leads: Global Financial Markets Association (GFMA) and Boston Consulting Group (BCG) in their paper ***"Climate Finance Markets and the Real Economy,"*** which outlines market-wide and sector-specific recommendations necessary to accelerate the investment in climate finance. The paper includes a call to action section for coordinated and concerted action by the public, social, and private sectors, to significantly scale the Climate Finance Market Structure (CFMS) over the next three decades. In a second stage, SFDN reached out to global Financial Market stakeholders to request any additions to the Focus Areas/Building Blocks/Actions section of this roadmap. This consultation process with global stakeholders also provided valuable inputs to assist SFDN efforts to align stakeholders' initiatives behind the roadmap building blocks. Other papers worth mentioning and considered for this roadmap are: ISDA's: ***Overview of ESG-related Derivatives Products and Transactions***. and GFMA/BCG's Global Principles for Climate Taxonomy.

77 Roadmap Building Blocks table section application:

- Provide a common stage to assess alignment in each economy's approach
- Give the possibility to economies to suggest any actions perceived as missing according to their experience
- Allow the SFDN to learn economies' prioritization strategies to be relayed to the upcoming Chair Economy, for it to define APEC's priorities in public/private collaboration areas around sustainable finance and SFDN deliverables for the upcoming year.
- Help economies identify action items in which they seek local public/private coordination and collaboration from SFDN.
- Identify global policymaking and framework development action items in which regional coordination is necessary to ensure APEC economies' concerns and interests are taken into account.
- Provide a framework for the SFDN to assist in aligning stakeholders' initiatives and in preventing fragmentation.

8 Some of these stakeholders included: the Asian Development Bank (ADB), ASEAN+3 Bond Market Forum (ABMF), International Organization for Standardization (ISO), the Sustainable Banking Network (SBN) of the International Finance Corporation (IFC), the SME Finance Forum, the Climate Disclosure Standards Board (CDSB), the United Nations' Sustainable Stock Exchanges (SSE), the Inter-American Development Bank (IDB), the Pacific Economic Cooperation Council (PECC), KKR, BlackRock, the International Chamber of Commerce (ICC) SME Climate Hub, the Monetary Authority of Singapore (MAS), the Pacific Alliance Business Council and the Japan International Bankers' Association (IBA), among others.

efforts to promote sustainable finance[9] and to initiate collaboration with key institutions engaged in shaping the future global framework for sustainable finance, such as the IFRS Foundation ESG Working Group, the International Organization of Securities Commissions (IOSCO), the Network of Central Banks and Supervisors for Greening the Financial System (NGFS), the Financial Stability Board (FSB) and the United Nations Sustainable Stock Exchanges (SSE).

Other Activities

The SFDN convened a roundtable of experts to provide inputs to the work of ABAC's Sustainability Working Group Task Force on Climate Leadership. The Report *Fostering Financial Sector Climate Leadership* is available on the APFF page of the ABAC website.[10]

Planned and Prospective Activities for the Rest of 2021

The SFDN is currently discussing the following possible activities for the rest of the year:

- an international dialogue on promoting collaboration and alignment around sustainable finance, jointly organized with UNDP;
- participation in the G20 Sustainable Finance Private Sector Roundtable to provide inputs on this year's SFWG priorities and identify high-level issues to be considered in the G20 SFWG Roadmap;
- participation in the Global SME Finance Forum 2021, which focuses on greening SME finance;[11]
- an APFF International Conference on Carbon Markets, in preparation for SFDN's collaboration with Chinese stakeholders in 2022 in developing China's carbon markets;
- series of consultative meetings and a regional symposium on taxonomy, in collaboration with ASIFMA, focused on guiding principles recently developed by the international capital markets sector,[12] and connecting this with efforts at the G20 and the ASEAN Taxonomy Board, with the goal of fostering shared approaches and collaboration; and
- discussions with relevant APEC officials on ways of supporting Thailand's 2022 APEC chairmanship in the field of promoting sustainability, including the potential use of the Sustainable Finance Development Roadmap as a tool.

II. INCLUSIVE FINANCE

Implementing FMP initiatives promoting access to finance is being progressed through the APFIF, which focuses on financial inclusion, and the Financial Infrastructure Development Network (FIDN) under the APFF, which focuses on improving MSMEs' access to finance.

A. Asia-Pacific Financial Inclusion Forum (APFIF)

The APFIF was established as a policy initiative upon the recommendation of ABAC by the APEC Finance Ministers in 2010. Led by the Asian Development Bank (ADB), it aims to deliver the objectives of the FMP related to financial inclusion. APFIF achieves this by facilitating the identification and development of concrete actions that policymakers and regulators can take to extend the reach and value of financial services to everyone, including those at the base of the economy who are most in need. Since its establishment, the APFIF has contributed to policy reform and capacity building across the region across various aspects of financial inclusion,

[9] This committee included executives from the Global Financial Markets Association (GFMA) and its member, the Asia Securities Industry & Financial Markets Association (ASIFMA), the United Nations Development Program (UNDP), which also acts as Secretariat to the G20's Sustainable Finance Working Group), the Boston Consulting Group (BCG), Tokio Marine Holdings, Nippon Life and Bloomberg. The UNDP/ International Network of Financial Centers for Sustainability (FC4S) will be providing support as Secretariat to the SFDN to address the APEC Chair economy's priorities, coordination and collaboration with the G20 and to address APEC participation in global frameworks/standards/policy development fora.

[10] http://www2.abaconline.org/assets/APFF/2021-03-31_Fostering_Financial_Sector_Climate_Leadership.pdf

[11] https://www.smefinanceforum.org/post/save-the-date-for-the-global-sme-finance-forum-2021-greening-sme-finance

[12] https://www.gfma.org/wp-content/uploads/2021/06/global-principles-for-climate-taxonomy.pdf

such as financial literacy, remittances, supply chain financing, consumer protection, credit information systems and digital financial services. More recently, the initiative has shifted its focus on challenges associated with the COVID-19 pandemic and the role of financial inclusion in rebuilding livelihoods and accelerating recovery.

2021 APFIF Policy Dialogue – Emerging Priorities in the COVID-19 Era

The importance of achieving financial inclusion has gained greater attention recently due to the economic impact of the pandemic and the vital role access to financial services has played in supporting resilience and recovery, especially among the region's poorest and most vulnerable people. In response, many governments have prioritized the development of the digital economy to enhance innovation and inclusion within the finance sector. Against this backdrop, the ADB, in partnership with the Asian Development Bank Institute, ABAC and the Foundation for Development Cooperation, organized the 2021 APFIF Policy Dialogue as a virtual event on 25 May 2021.

This meeting, which has been held annually since 2010, brought together senior government officials from 18 economies as well as nearly 30 policy and industry experts. Under the theme "*Emerging Priorities in the COVID-19 Era*" the roundtable-style dialogue focused on (a) facilitating recovery and resilience through financial inclusion; and (b) emerging financial inclusion challenges and opportunities in a world disrupted by COVID-19.

As a result of this dialogue, a series of proposed actions have been developed for the consideration of APEC policymakers and regulators (Appendix B). Some of the key issues addressed within these proposed actions include support for microfinance providers to adopt digital technology, establishing inclusive digital ecosystems, facilitating innovation to accelerate economic recovery, reassessing financial inclusion strategies in line with digital transformation frameworks, promoting stakeholder cooperation to progress digital inclusion at the base of the economy and mobilizing capital for critical infrastructure investments through innovative fintech mechanisms.

These proposed actions aim to support efforts within the FMP to accelerate financial inclusion as a priority area of the Cebu Action Plan as well as to progress the APEC's Putrajaya Vision 2040 and priorities of the APEC Host Economy, New Zealand; both of which call for greater progress in achieving greater inclusion, sustainability and digital innovation for the region.

2021 APFIF Report Publication

A detailed report based on the discussions held at the 2021 APFIF Policy Dialogue and proposed actions for policymakers and regulators is expected to be published by the ADB by October 2021. As per previous years, this report will be disseminated to FMP officials via the APEC Secretariat and made publicly available on the ABAC website alongside previous APFIF reports.[13]

B. APFF Financial Infrastructure Development Network (FIDN)

The Financial Infrastructure Development Network (FIDN) was established under the CAP as a specialized subgroup within the APFF to progress various priorities under the Cebu Action Plan. It was tasked to draw the support of ABAC, the SME Finance Forum, the World Bank Group and other international organizations to support interested APEC economies in undertaking reforms to develop (a) secured transactions systems;[14] (b)

[13] See: https://www2.abaconline.org//page-content/22611571/Financial%20Inclusion

[14] Since its launch in November 2015 under the Cebu Action Plan, the Secured Transactions Reform Working Group has focused its efforts to assist economies on four primary areas: (a) law reform (working with member economies to improve secured transaction laws to allow MSMEs to leverage moveable assets in line with global best practices, following primarily UNCITRAL's Model Law on Secured Transactions); (b) registry reform (supporting law implementation and the establishment of online, centralized, low-cost moveable asset collateral registries); (c) ecosystem development (fostering enabling industries to support expansion of secured transactions, including valuation practices and collateral management industries); and (d) capacity-building (supporting the development of market expertise and awareness of secured lending products among key stakeholders, including MSMEs, financial institutions, non-bank financial institutions and regulators). Significant progress has been made across the region, with most work focused on Brunei Darussalam, China, Philippines, Thailand, and Viet Nam as detailed below. Recognizing the work completed to date and to better align with key ABAC initiatives to enhance the ability of MSMEs to participate successfully across borders and in global value chain and expand their innovative capabilities and global presence through internet and digital economy and e-commerce platforms, in addition to facilitating MSME access to finance, FIDN is working to complement its initial focus, with expanded efforts on the modernization of secured transactions through two key areas: (a) digitalization (strengthening the enabling environment for e-platforms to operate efficiently, through

data ecosystem; (c) credit information systems; (d) trade and supply chain finance; and (e) valuation practices.[15]

Achieved Policy Reforms

Among the policy reforms implemented by member economies with support from various activities of FIDN over the years are the following:

- *The Philippines*: Launch of the secured transactions collateral registry in April 2021.
- *Viet Nam*: The issuance of Decree 21, which brings the secured transactions reform in line with the new Civil Code 2015, including the explicit recognition of transfer of claims, which is critical for the development of the factoring market.
- *China*: Consolidation of its moveable property registration into a single agency (Credit Reference Center of the People's Bank of China) on 1 January 2021. This completely replaced local level filings on inventory and other related assets.

In addition to the above, the Philippines' Revised Warehouse Receipts Law (House Bill 8698) was passed 196-0 by the House of Representatives on 9 March 2021, while its counterpart bill in the Senate (Senate Bill 2049) has completed its first reading and has been referred to the Committee on Trade, Commerce, Entrepreneurship and Finance.

Capacity Building

The FIDN held the following capacity-building workshops to share best practices with relevant stakeholders from member economies:

- *Thailand*: Virtual Workshop on Credit Reporting in the Next Normal, Forward Looking (21 Oct 2020)
- *Viet Nam*: 8th FIDN Conference on Financial Infrastructure Support for Post-Pandemic Economic Recovery in Asia Pacific (11 Nov 2020, Ho Chi Minh City)
- *China*: 2021 (Co-host) 8th Symposium on Warehouse Finance and Collateral Management (11 Jan 2021)
- *The Philippines*: 9th FIDN Conference on Deepening Reforms to Reinvigorate Moveable Asset, Risk-Based and Supply Chain Financing for MSMEs in the Post-COVID Era (6 Apr 2021)
- *Japan*: Virtual dialogue on the appropriate role, focus and constitution of a business valuation professional organization (VPO) to help develop a self-regulated VPO in Japan
- *Papua New Guinea*: Virtual dialogue with the PNG Association of Valuers to assist in the adoption of International Valuation Standards as the industry standard for all major public and private sector valuations, and capacity-building assistance in developing valuation courses and training for the University of Ley

Development of Global Best Practices

The FIDN also participated in international workshops to identify best practices that can be applied in APEC member economies, as well as share the lessons from its work in the region's developing economies to help in the development of model laws. These include:

- UNIDROIT 4th Virtual Workshop on Best Practices in the Field of Electronic Registry Design and Operation (9 Sep 2020)
- Virtual Forum for Secured Transaction Reform – Toward Coordinated Implementation of International Standards on Receivables Finance (8 Dec 2020)
- Working Group 2 Virtual Session for the UNIDROIT Model Law for Factoring (14 Dec 2020)
- Working Group 3 Virtual Session for the UNIDROIT Model Law for Factoring (26 May 2021)
- 4th Virtual Conference on International Coordination of Secured Transactions Reform: Coordination in Practice and Enhancing Access to Credit (10 Jun 2021)

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receivables' finance, warehouse receipt, and supply chain finance platforms; while supporting the digitalization of financing documents and instruments (e.g digital/e-invoices, e-warehouse receipts). and (b) globalization (Improving the harmonization of secured transaction systems to expand MSME participation in global trade; driving collaboration among related APEC fora to maximize outcomes).

[15] Now on its fifth year of work, the APFF Valuation Practices Working Group led by the International Valuations Standards Council (IVSC), is advancing the adoption of common valuation standards (IVS) across the Asia Pacific region and helping develop a robust valuation profession to monitor the delivery and use of these standards. The initiative is targeted at both tangible and intangible assets, although the valuation of soft and movable assets is the area of greatest need and attention.

- Collaboration with the International Valuation Standards Council (IVSC) in the production of the Perspective Paper *A Framework to Access ESG Value Creation* to develop thought leadership in how ESG can be addressed from a business valuation perspective.

The FIDN is a participant at the International Committee on Credit Reporting (ICCR), the only recognized international standard setter in credit reporting coordinated by the World Bank. The FIDN will report this year on a study on the impact of rental payment data reporting as a form of alternative data that in credit information sharing can increase credit inclusion.

Tools for Reforms and Cooperation

To assist policy makers in the Philippines in reforming the economy's Credit Information Systems Act (CISA), the Policy and Economic Research Council (PERC) developed jointly with the Makati Business Club under the auspices of FIDN and released a report *Philippine Credit Information Study*, examining progress since the law was passed, shortcomings and potential reforms.[16]

Planned and Prospective Activities for the Rest of 2021

The FIDN is currently preparing the following activities:

- The 10th FIDN Conference (4Q 2021, most likely to be hosted in Viet Nam)
- Virtual Regional Focus Group Meeting to discuss how to improve the supply chain finance ecosystem in the Philippines (Oct 2021)
- Virtual regional session on data and data analytics market development during the Shanghai Forum (Oct 2021)
- Webinar on data privacy in collaboration with APEC, including discussion on privacy enhancing technologies to look at how technologies can augment data privacy in cross-border activities
- Webinar on data security in collaboration with APEC to discuss a possible Framework for Digital Trust

The FIDN is also working on the following documents to identify technical measures and suggested actions for policy makers and regulators in implementing relevant FMP deliverables:

- Report examining the roles of government-run public credit registries (PCRs) and private credit bureaus (PCBs).
- A baseline credit reporting survey of APEC member economies, which will expand on similar surveys carried out as part of the World Bank's Ease of Doing Business reports (expected publication date: Fall 2021)[17]

C. APFF Digital Trade Finance Lab (Trade and Supply Chain Finance)

Tool for Reforms and Cooperation: APFF Digital Trade Finance Lab Combating Trade-Based Money Laundering Whitepaper

Following the endorsement in 2019 by the APEC Finance Ministers of the *Strategy for the Digitalization of Trade and Supply Chain Finance*, the APFF Trade and Supply Chain Finance Working Group moved to establish the APFF Digital Trade Finance Lab (hereafter referred to as "the Lab") last year and designed its scope.[18] The first project of the Lab was launched thereafter, which is the use of technology to combat trade-based money laundering (TBML). At their 2020 annual meeting, the APEC Finance Ministers called for an update on this work, and in response the Lab convened a TBML Task Force, composed of representatives from diverse backgrounds including banking, legal, technology and government. The Task Force completed the Whitepaper on *Combating Trade-Based Money Laundering*, [see Appendix C], incorporated suggestions received, presented

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[16] https://www.perc.net/wp-content/uploads/2021/05/Philippine-Credit-Information-Study.pdf

[17] This is particularly timely in the light of increasing interest in expanding capacity and roles of PCRs. A key case study examines the credit information sharing market in the Philippines, which has a mix of government-run PCRs and several PCBs. The report also makes a reference to the prospective creation of a PCR in the USA, which was highlighted in the recent congressional hearings.

[18] Participants at the kick-off call held in May 2020 agreed that, based on the endorsed APFF Strategy Paper, focus shall be mainly on documentary trade finance and to a minor extent on open account trade finance. It was further agreed that the ICC Roadmap for digitalization of trade finance will serve as baseline for APFF's activities in the respective economies/regions. The proposed governance structure consists of various working groups as well as of a steering committee composed of the respective chairs of the working groups.

it to senior finance officials and other relevant regulators and stakeholders on, and submitted it after all suggestions have been taken into consideration.

The Whitepaper concludes the following:

- Emerging technologies such as blockchain, artificial intelligence and secure multi-party computation can alleviate many of the compliance issues with regard to private-private information sharing needed to facilitate an industry-wide and cross-industry response.

- The Whitepaper highlights some existing use cases for blockchain and AI for the automation of TBML monitoring and currently available privacy-enhancing technologies that can alter the typical trade-off between the security and availability of information, and thus between privacy and preventing illicit finance. These technologies can provide the automation and information sharing that industry participants are seeking while also accommodating the understandable privacy concerns of APEC member governments.

- The Whitepaper suggests that Finance Ministers and regulators provide the necessary intergovernmental coordination, regulatory clarity, and space to adequately test, develop, and implement these ideas using these technologies.

During the course of the project, it became evident that the continuing work of the Lab ought to cover not only documentary trade but should also include open account trade. This is considered sensible because supply chain finance (SCF) techniques which are predominantly used for financing of open account trade are increasingly deployed by financial institutions.

Other Activities

The Digital Trade Finance Lab provided support for ABAC in formulating its recommendations on digital inter-operability by organizing the session on Digitalizing Trade of the ABAC Digital Symposium that was held on 11 March 2021.

D. APFF Financial Market Infrastructure Network

Financial market infrastructures (FMIs) are the pillars of financial market integrity and serve to facilitate the efficient and cost-effective flow of investment across markets. APFF's recent work focused on standards and inter-operability to enable technology to be used in various aspects of FMIs, including payments, clearing and settlement.[19] In particular, various activities were undertaken by the FMI Network's Digital Payments Working Group and Cross-Border Practices Working Group to help accelerate the development of inter-operable digital identity systems, eKYC approaches and open banking arrangements and the wider adoption of the Legal Entity Identifier (LEI) in the region.

Capacity Building

The FMI Network collaborated with the Emerging Payments Association Asia and APIX to convene for officials, regulators and other relevant stakeholders a Proof-of-Concept Workshop on open banking on 19 May 2021.

The Network also jointly convened with ABAC Thailand and Thailand's National Commission for Digital Economy and Society (ONDE) a webinar on *Accelerating the Development of Inter-Operable Digital Identity Systems and Corporate eKYC Approaches in APEC* under the APEC Digital Economy Steering Group (DESG) on 30 July 2021. The webinar identified pathways to progress that will be considered by the APEC DESG for incorporation into its future work.

Tools for Reforms and Cooperation

To assist policy makers and regulators in the design of policies and regulations, the FMI Network is developing the following whitepapers and reports:

[19] This includes the FMI needs, barriers and mitigation with respect to the post-trade ecosystem; identification, tax, non-residency and transparency in relation to investors; repo and lending; specific issues affecting the use of derivatives; and fund services.

- *Whitepaper on Legal Entity Identifier* to promote the wider adoption of the LEI in the region;.[20]
- *Whitepaper on Digital Identity* covering the landscape for digital ID in APEC;[21]
- *Whitepaper on eSignatures*;[22] and
- *Suggested actions to implement eKYC.*[23]

Other Activities

The FMI Network collaborated to identify and invite panelists for the roundtable of experts to provide inputs to the work of ABAC's Digital Working Group Task Force on MSME Digital Transformation on 19 May 2021. The Report *Accelerating MSME Digital Transformation through Finance* is available on the APFF page of the ABAC website.[24]

Planned and Prospective Activities for the Rest of 2021

The FMI Network will contribute to the holding of the following APFF activities for the rest of the year:

- APFF Roundtable on Digital Currencies (September 2021)
- Capacity-Building: APFF China Dialogue on *Collaboration towards Inclusive and Innovative Financial Markets* in collaboration with the China Chamber of International Commerce, Chinese Academy of Fiscal Sciences and Society of Public Finance of China (14-15 October 2021).
- Capacity-Building: APEC-APFF Symposium on *Digital Trade Transformation and Connectivity* in collaboration with the Government of Thailand and ABAC Thailand (November 2021)

The Network will also focus its regular monthly discussions on developing possible APEC initiatives related to FMI issues around digital assets (non-fungible tokens, escrow function, delivery versus payment to customer, use as collateral, types of digital assets), ESG, central bank digital currencies and FMI resiliency.

E. BIMP-EAGA Micro- and Small Enterprise Digitalization Pilot

This initiative focuses on the micro- and small enterprise segment (MSEs) of the MSME sector, which has unique needs and faces challenges requiring distinct policy and structural reform responses. Led by TOQQA Global in collaboration with ABAC Brunei, it adopts a "living laboratory" in-market pilot approach to testing digital commerce and trade solutions across the value chain in the Brunei-Indonesia-Malaysia-Philippines East ASEAN Growth Area (BIMP-EAGA). In 2020, the project engaged micro and small enterprises in a digital commerce application to test their responses to the usefulness and effectiveness of end-to-end digital commerce capabilities on key measures.[25]

[20] The draft was developed through discussions with various global stakeholders, including the OECD/Italy B20 representatives in May 2021, as well as the ISO 20022 Registration Management Group (RMG), the US Securities and Exchange Commission and the Financial Industry Regulatory Authority (FINRA) in June 2021.

[21] This discusses individual economies' efforts to progress digital ID schemes, assesses considerations for APEC economies around scheme objectives and operating models, identifies examples of best practice in the region and suggests ways of both implementing ID schemes and in particular encouraging mechanisms for cross-border inter-operability across APEC member economies.

[22] This provides a landscape overview of the legal and regulatory framework for eSignatures in each economy, identifying model laws and other existing frameworks for eSignatures and the related areas of digital ID and eCommerce, identifies barriers to achieving effective frameworks, changes economies have made since the outbreak of COVID and suggested actions for economies to address remaining obstacles and work towards inter-operability of eSignature regimes.

[23] The FMI Network developed a series of suggested actions on eKYC bearing in mind the objectives of expanding financial inclusion, addressing AML concerns and realizing efficiency savings. These include specific action points for APEC economies to consider in advancing eKYC in APEC, working towards developing a full strategy for digitizing KYC in the region.

[24] http://www2.abaconline.org/assets/MSME_Digital_Trans_RT_Report_2021-07-14_Final.pdf

[25] These are measures of (a) productivity of their enterprises; (b) entrepreneurs' perceptions of increased growth prospects including increased market presence in existing markets, expansion into new markets and expansion into new products; (c) competitive positioning through connectivity to customers driving relationships and insights into customer demands and access to broader supplier base.

Tool for Reforms and Cooperation: Defining Resilient Futures for Micro and Small Enterprises through Digital Transformation

The outcomes of the pilot are documented in the 2020 Policy Series *Defining Resilient Futures for Micro and Small Enterprises through Digital Transformation*.[26] The pilot highlighted a number of actions required to accelerate Micro and Small Enterprise access to, and participation in, digital commerce and trade, which are covered in detail in Paper #3 of the Policy Series.

In 2021, the Pilot is investigating key policy implications across the following five areas:[27]

- *Regionalization / Internationalization of Micro and Small Enterprises* – creating the right policy and regulatory context to enable digital access to supply chains and cross-border trade opportunities, addressing limiting and anti-competitive commerce and trade policy and practices
- *Productivity Innovation Driving Long-Term Resiliency* – elevating Micro and Small Enterprise ability to bring innovation to markets to drive macro and micro economic progress
- *Promote Creation of, and Access to, Productive Ecosystems* – reflective ecosystems must ensure pronounced enablement, sustainability and inclusion in Building Back Better, recognizing that digital transactional fluency along the commerce value chain from source to pay requires convergence of digital capabilities seamlessly brought together into productive ecoystems
- *Beyond Basic Digitalization, Accessing Benefits of New Technologies* - Platforms can create enterprise specific insights on existing customers but also on new commercial horizons – policy and regulation on data security needs to address the rights of Micro and Small Enterprises to access commercial insights that will drive greater productivity and expansion opportunities
- *Advancing digitalization of womenpreneurs* – The TOQQA pilot highlighted that convenience and time-saving digital capabilities are most sought by women, and also that women have significantly lower access to digital commerce and trade capabilities as compared to men, which limit their income earning security and potential. The 2021 Policy Series will advance the policy focus required to increase womenpreneur digitalization

Work is ongoing on the 2021 Policy Series, which will be completed later this year.

III. FINANCIAL RESILIENCE

APFF seeks to promote financial resilience through its work on (a) disaster risk financing and insurance; (b) insurance regulation and accounting; (c) promoting circular economy infrastructure; and (d) health care financing.

A. Disaster Risk Financing and Insurance

Since 2015, the APFF Disaster Risk Financing and Insurance (DRFI) Network has been assisting the APEC Working Group on Regional Disaster Risk Financing Solutions to jointly promote DRFI in the region as envisaged in the Cebu Action Plan. Key actions of the DRFI Network over the past couple of years have been centered on three topics, namely catalyzing the region's catastrophe bond market, enhancing financial protection on critical infrastructure services, and incorporating pandemics in the context of DRFI.

Capacity-Building

Building on the APEC Virtual Workshop on Catastrophe Bonds held on 23-24 September, 2020, the APFF DRFI Network is jointly convening another virtual APEC workshop later this year with the World Bank Group and the Hong Kong Insurance Authority on Using Catastrophe Bonds to Transfer Risks to International Investors. Discussions and sharing of experiences are tailored to help Hong Kong in its efforts to develop its market for

[26] https://uploads-ssl.webflow.com/5ea40502dddc5fd6a9859459/60f40626f5cd6039854f0f1c_Policy-Series-Defining-Resilient-Futures.pdf

[27] For details, see https://uploads-ssl.webflow.com/5ea40502dddc5fd6a9859459/60f406c39e1b260875fd32d3_ABAC%20FM%20Progress%20Report%202021.pdf.

cat bond issuance, which will benefit the municipalities and businesses around the Greater Bay Area.

Development of Best Practices

With respect to the theme to enhance financial protection of critical infrastructure services, the APFF DRFI Network took part in the virtual workshop held on 11 March, 2021, which was hosted by the World Bank Group, by presenting actual case studies of how private sector expertise effectively led to sound financial protection of infrastructure services such as airport facilities and power distribution services.

Other Activities

The APFF DRFI Network jointly organized with ABAC Philippines the virtual Roundtable on *Insurance and Risk Sharing Models and Options for Strengthening Resilience in the Asia-Pacific Region* held on 14 April, 2021. The Roundtable covered three topics (inclusive risk transfer solutions, business interruption insurance against pandemic risk, and risk transfer options through insurance-linked securities) to assist ABAC in developing its recommendations to APEC leaders and Finance Ministers this year on these solutions.

B. Insurance Regulation and Accounting

Since 2013, APFF has been working on promoting the insurers' and pension funds' roles to support the sustainable, resilient and inclusive growth and development of the Asia-Pacific region, through the APFF Insurance and Retirement Income Network. APFF has continued outreach and dialogue with policymakers, authorities, accounting standard setters, international and regional organizations, and stakeholders, promoting the adoption of solvency and accounting regimes[28] that do not discourage insurers from engaging in long-term business and making long-term investments in infrastructure and capital markets.

Accounting

Progress of Accounting Standards Reform

APFF has been working with the International Accounting Standards Board (IASB) and other stakeholders to find solutions to both interrelated standards IFRS17 *Insurance Contracts* and IFRS9 *Financial Instruments* to address issues and concerns identified by APFF. This was done through various approaches over the years, including comment letters proposed by APFF and issued by ABAC, international workshops and dialogues with individual officials. Following are the latest updates on the responses from standard-setters:

- Following the issuance of the final amendments to IFRS17 on 25 June 2020 and the deferring of the mandatory effective date of IFRS17 and the temporary exemption to IFRS9 for qualifying insurers to 1 January 2023 (with early adoption permitted), the IASB is now proposing to make a narrowly scoped amendment to IFRS 17 introducing an optional classification overlay approach that would address one-time classification differences and operational issues that may arise for insurers which will be willing to present on initial application not only comparative information of IFRS 17 (compulsory) but also to align this with the ones for IFRS 9 (optional). The exposure draft was issued on 28 July 2021 for public consultation over a shortened comment period of 60 days. IASB aims at publishing a final amendment at the end of the year. This amendment would be in line with the APFF recommendation to treat assets and liabilities consistently, also with regards to information provided for the comparative period.
- With regard to IFRS17 endorsement, the European Commission was recently successful in reaching a political agreement with the EU Member States (being all members of the Accounting Regulatory Committee (ARC)) and to achieve their support and subsequently a positive vote on 16 July 2021 for

[28] APFF identified the following issues and recommendations on insurance regulations and accounting (submitted in 2015 by ABAC to the IAIS. See also APFF Progress Report 2015):

- ***Bank-centric regulations***: Standards should reflect long-term nature of insurance. Insurers should be allowed to invest in assets with long-term growth opportunities, such as infrastructure investments;
- ***Short-term oriented economic regimes***: Economic regime should have a long-term vision. Insurers should be encouraged to make decisions to be good in the long-run rather looking good at a given moment;
- ***"One-size-fits-all" models***: Standards should be principle-based and aim to achieve comparable outcome by taking into account the diversity in different economies;

inclusion of an optional carve out of the "annual cohorts" requirement for certain insurance contracts when endorsing the global standard at EU level, following an endorsement advice of the European Financial Reporting Advisory Group (EFRAG). While it might potentially address a practical concern identified by APFF, it could raise different treatments between the EU and the rest of the world. APFF plans to work with relevant parties, including European stakeholders, to find workable solutions (i.e. reflecting mutualization among the contracts across generations). Regarding IFRS9, the European Commission requested in the past the IASB to revisit its position on the issue of recycling ban[29] for equities measured at fair value through OCI ('FVOCI equities'), as advised by the EFRAG on 30 January 2020 to recommend to IASB to undertake an "expeditious review" of the IFRS 9 in this regard. The IASB decided in response to this request to accelerate its Post-Implementation Review (PIR) on IFRS 9, to focus it on classification and measurement and to include the recycling issue into it. The public consultation for the PIR will start in September 2021. APFF will monitor the discussions.

APFF continues analysis on implementation status of IFRS17 and IFRS9, including the impact on solvency assessment, and provide implementation support as needed in the Asia-Pacific region.

Solvency regime

Ongoing Advocacy Activities

With respect to solvency regime, APFF has been engaging in continuous outreach and dialogue with policymakers, regulatory authorities, international and regional institutions in coordination with industry bodies, to reflect the long-term nature of the insurance business in global regulatory discussions and to avoid dis-incentivizing insurers from supporting long-term growth, in particular quality infrastructure investments. In November 2019, the International Association of Insurance Supervisors (IAIS) agreed on Insurance Capital Standards (ICS) Version 2.0 for a five-year monitoring period. During the monitoring period, ICS are being used for confidential reporting and discussion among supervisors in supervisory colleges. The IAIS published its Level 2 documents on 13 March 2020 and its Level 3 documents on 30 June 2020. As part of its work on the ICS over the 2020-2024 Monitoring Period, the IAIS had a consultation (by 7 December 2020) on whether there should be a differentiated capital treatment of certain eligible infrastructure (both equity and debt) as well as strategic equity investments within the ICS. In that context, the IAIS received input from the public regarding quantitative and qualitative material and data sources that could be used to support the aforementioned work. The survey also provided an opportunity for stakeholders to share with the IAIS their experience with respect to such investments.

- APFF worked with other stakeholders, such as Geneva Association[30], which submitted comments in line with the APFF recommendations[31]. IAIS has a series of consultations, for which APFF continues to provide inputs on relevant areas through the coordination with both regional and international stakeholders.

Planned Activity for the Rest of 2021

- The APFF plans to hold an *APFF Roundtable on Insurance Regulations and Accounting* in the fourth quarter

[29] ABAC submitted the following comment on recycling to IASB in 2015: Items of income and expenses presented in OCI should be permitted to be recycled, since it often reflects how an entity conducts its business and leads to a faithful representation of the performance for the period. It would also build a clearer linkage between financial performance and financial condition. We are not persuaded why the recycling criteria are different for debt and equity instruments. The absence of recycling of equity investments may dis-incentivize the institutional investors to engage in such investment as a possible unintended consequence arising from this inconsistency.

[30] Founded in 1973 by the CEOs of global insurers, The Geneva Association is an international insurance think tank that produces and distributes high-quality research and analysis on global strategic insurance and risk management issues. Its objective is to develop and promote a wider understanding on the unique role and importance of insurance in economies and for societies through publications, conferences and active discourse with policymakers, regulators, supervisors, academics and other key constituents.

[31] Geneva Association's comment included the following reference to the APFF: "Another example comes from the Asia-Pacific region. The APEC Business Advisory Council (ABAC) has published an Asia-Pacific Financial Forum (APFF) progress report (submitted yearly to APEC finance ministers), which includes the following high-level recommendations: treating infrastructure as a defined asset class; promoting the adoption of solvency and accounting regimes that do not discourage insurers from engaging in long-term business and long-term investments in infrastructure and capital markets. The report stressed that insurers should be encouraged to make decisions "to be good in the long-run" with growth potential rather than "looking good at a given moment", such as is the case when the focus lies on short-term volatility. See APFF Progress Report 2016 to the APEC Finance Ministers for the high level recommendations: https://www2.abaconline.org/assets/2016/3%20Shenzen/1_2016_APFF_Report_Final.pdf "

of 2021 or the first quarter of 2022 (the venue or the format of the roundtable to be determined), inviting IFRS Foundation, insurance supervisory authorities, accounting firms and industry experts in the Asia-Pacific region. Topics to be included are IFRS17, IFRS9, Sustainable Reporting, as well as Solvency Regime. Issues identified during the roundtable will be used as basis for further dialogue with standard setters and stakeholders.

ESG Investment and Sustainable Finance

The ESG Finance Working Group was established in March 2020 to deepen the footprint of ESG investment and responsible banking in developing economies. APFF provided input to ABAC in drafting high-level recommendations[32] to APEC Finance Ministers on ESG Finance in 2020.

Ongoing Advocacy Activities

APFF continues to have dialogue with policymakers and standard setters, including IAIS[33], IFRS Foundation, Task Force on Climate-Related Financial Disclosures (TCFD), the United Nations Principle of Responsible Investment (UNPRI), and to provide a forum that brings together governments, regulatory agencies, private sector, and civil society to share challenges, possible solutions and good practices to promote ESG in the region, in collaboration with other international and regional bodies. While most of the work on ESG and sustainable finance are expected to be engaged through the SFDN, the working group may continue to provide specific input from the long-term institutional investors' perspectives, such as insurers and pensions funds[34].

C. Circular Economy Infrastructure

For 2021 New Zealand has prioritized pursuing measures to incentivize sustainability. In their paper Policy Priorities for APEC 2021[35] they note "new technologies also present opportunities to advance sustainability goals. To contribute to a green economic recovery and the transition to a low-carbon future, it is important that APEC economies support the development of emerging technologies through investment and industry policy."

Capacity-Building

- In support of this priority the APFF and APIP in collaboration with the Malaysian Green Technology and Climate Change Centre and Ocean Conservancy organized a webinar series "Promoting Investment and

[32] The ABAC recommendations included the following high-level principles that should govern efforts to promote the integration of ESG factors in financing decisions: Strive toward a common global ESG taxonomy or set of standards that is practical, globally applicable and readily adapted to the needs of users across diverse jurisdictions at different levels of economic, social and political development. It would need to have the following characteristics:

- Principles-based rather than prescriptive;
- Globally consistent;
- Flexible in approach and acknowledging, e.g., different shades of green and brown instead of a binary choice between green and brown, and that is open to different speeds of adoption;
- Dynamic, taking into account future changes in the level of sustainability of assets and activities due to technological developments;
- Adaptable and easily implementable;
- Broad coverage of activities and financial products; and
- Inclusive and adhering to the global pledge that no one should be left behind.

Also recommended was to devote sufficient attention to social and governance factors, which are less developed than environmental factors. See ABAC Report to the APEC Economic Leaders: https://www2.a https://www2.abaconline.org/assets/ABAC_Report_2020_Final.pdf

[33] The IAIS has published an Application Paper on the Supervision of Climate-related Risks in the Insurance Sector. The Paper was developed jointly with the Sustainable Insurance Forum (SIF) -- a leadership group of insurance supervisors convened by the United Nations Environment Programme (UNEP). The paper provides background and guidance on how the IAIS supervisory material can be used to manage the challenges and opportunities arising from climate-related risks.

[34] Institutional investors usually follow any or all of five main approaches to sustainable finance, which are as follows:

- Negative screening (exclusion);
- Positive screening (selecting the best in class);
- Thematic investments (green and social bonds);
- Active ownership (stewardship); and
- ESG integration (multi-factor across the firm).

[35] New Zealand's Policy Priorities for APEC 2021, 2020/ISOM/003 http://mddb.apec.org/Documents/2020/SOM/ISOM/20_isom_003.pdf

Innovation to Combat Marine Litter and Build a Circular Economy in APEC[36]." The series[37] identified innovative policies and financing mechanisms that can promote new technologies and private sector investment in the circular economy as well as a set of recommendations for officials to consider.

- Additionally, work is continuing through the Recyclable Materials Policy Program[38] which seeks to *inter alia* develop the capacity of APEC economies to identify and frame domestic policies that promote waste management and recycling (WMR) infrastructure and in particular enabling policies for recycling infrastructure investments (including Public Private Partnerships). The first webinar was held on 16 – 17 June, 2021 with additional webinars planned for later this year[39].

D. Health Care Financing

The APFF continued its partnership with the Life Sciences Innovation Forum to help support the development of stronger and more resilient health systems and improve people's access to health services through innovative healthcare financing mechanisms.

Capacity-Building

Since July 2020, five webinars have been organized under the "Enhancing Innovative Healthcare Financing in Pursuit of Strong and Resilient Health Systems" project addressing various issues including blended financing arrangements, social impact bonds, private insurance, digital and fintech solutions, impact investments among other topics[40].

Tool for Reforms and Cooperation: The Health Care Financing Roadmap

A health care financing roadmap summarizing the main findings and recommendations from the webinar series as well as outlining future projects and initiatives focused on implementation of different financing mechanisms is currently under development and will be presented at the 11th High-Level Meeting on Health and the Economy.

Planned Activities for the Rest of 2021

- Additional webinars under the "Enhancing Innovative Healthcare Financing in Pursuit of Strong and Resilient Health Systems" project in 2021 will address financing for transformational therapies and rare diseases.
- A policy dialogue with health and finance officials is also being planned for the fourth quarter of 2021.

IV. OTHER INITIATIVES

Supporting the Development of Regional Funds Passports

Proposed by ABAC and established at the APEC Finance Ministers' Meeting in 2015 with the signing of a Statement of Understanding, the ARFP provides a legal and regulatory framework for the cross-border offerings of managed funds to retail investors, providing more fund choices and easier access to external markets for fund operators. With the implementation of the ARFP by Korea at the end of 2020, all current five signatories can now receive registration applications from prospective passport funds in their respective economies, as well as

[36] The APEC project proposal may be found here: https://aimp2.apec.org/sites/PDB/Lists/Proposals/DispForm.aspx?ID=2580

[37] Additional information as well as recordings of the webinars may be found here: https://event.on24.com/wcc/r/2450327/A83380372349826B5042F145FD02A322 and here: https://event.on24.com/wcc/r/2639605/7102DEF31BD117F6DF2E8A94F47B6349

[38] The APEC project proposal may be found here: https://aimp2.apec.org/sites/PDB/Lists/Proposals/DispForm.aspx?ID=2591

[39] Additional information regarding APEC's work to promote investment in waste management infrastructure may be found at: www.apec.org/marinedebris

[40] Additional information regarding the webinar series may be found on the APEC project database at: https://aimp2.apec.org/sites/PDB/Lists/Proposals/DispForm.aspx?ID=2589 and on the APEC LSIF website: https://www.apec.org/groups/committee-on-trade-and-investment/life-sciences-innovation-forum

entry applications from foreign passport funds.

However, efforts by APFF to expand its support for the regional funds passport project and promote trans-Pacific cooperation in funds passport schemes between the ARFP and the Pacific Alliance were severely affected by the COVID-19 pandemic, which limited opportunities for communication and collaboration between the regulatory agencies and the industry. While continuing to provide support to interested regulators in addressing tax issues, APFF will consider future work in this area in line with developments related to the current emergency situation.

CONCLUSION

Well into the second year under the shadow of the COVID-19 pandemic, the world appears to be bouncing back. Vigorous responses by governments and central banks have helped economies avert a major economic crisis. Vaccination has started and is gaining pace and society has begun to adapt to the requirements for preventing the further spread of the virus. Organizations and individuals have quickly embraced new ways of doing things such as working from home, replacing physical with virtual meetings and embracing digital transactions, among many others, that have established themselves as the new normal. Under these conditions, economies are returning to growth.

However, it is far from over. Uncertainty remains about the effectiveness of vaccines and medications against new strains of the virus. The pandemic has left deep scars, particularly its disproportionate impact on many developing economies, the most vulnerable and MSMEs, and its cumulative effect on productivity and the strength and sustainability of the recovery. The strong fiscal and monetary policy responses to the pandemic have brought new challenges as policy makers consider how these could be unwound without creating new dislocations and instability. The diminished fiscal capacity of governments have increased societies' exposure to risks of natural catastrophes that are growing in frequency and magnitude as a result of climate change.

Serious structural reforms, in particular those that enable the introduction of technology and innovation to achieve more inclusive, sustainable, effective and efficient ways of doing things, are needed to ensure strong and sustained recovery. The financial services sector is a good starting point for such structural reforms, given its central role in the economy. In this regard, the road ahead for APEC is not totally uncharted, as the ways to make finance more inclusive, innovative and sustainable have already been researched, discussed and identified long before the arrival of COVID-19. Many of these proposed measures are already in the Finance Ministers' Cebu Action Plan and the FMP agenda and identified in past ministerial statements. It only remains for them to be translated into concrete policies, regulations and capacity building measures. The pandemic and its aftermath have injected a sense of urgency representing an opportunity that is there to be seized.

The APEC Finance Ministers' Process can take the lead in translating this sense of urgency into individual and collective actions to advance the implementation of these deliverables in the Finance Ministers' multi-year agenda. Much can be achieved by coordinating this with the work of the multilateral organizations participating in the FMP – the ADB, IMF, OECD and World Bank – and with the initiatives of the business sector, as well other relevant APEC fora. Critical areas include measures to restore sustainable fiscal structures that will enhance the credibility and preparedness of economies to deal with future crises and measures to accelerate structural reforms that promote inclusion, digitalization and sustainability.

The work of the Finance Ministers' policy initiatives entrusted to ABAC – the APFF, APFIF and APIP – has also been deeply affected by COVID-19. Much of the work was disrupted in 2020, but the stakeholders of these initiatives have been able to rapidly embrace technology and innovation, and in 2021 the pace has increased with the growing uptake of these new ways of doing things by our counterparts in the public sector. As this Progress Report shows, these initiatives continue to provide support to economies in undertaking important reforms, especially in expanding access to finance, and individual economies as well as APEC fora are coming forward to make full use of these platforms for public-private collaboration to advance various initiatives related to digitalization and sustainability. In this context, we look forward to working with APEC Finance Ministers and other relevant authorities in seizing opportunities for undertaking concrete reforms and capacity building measures that will help our region regain its momentum by enabling financial services to catalyze inclusive, innovative and sustainable recovery.

REGAINING MOMENTUM

ENABLING FINANCIAL SERVICES TO CATALYZE INCLUSIVE, INNOVATIVE AND SUSTAINABLE RECOVERY

2021 Progress Report

Asia-Pacific Financial Forum ● Asia-Pacific Financial Inclusion Forum ● Asia-Pacific Infrastructure Partnership

APPENDICES

APPENDIX A

APEC Sustainable Finance Development Roadmap

Asia-Pacific Financial Forum Sustainable Finance Development Network (APFF SFDN)

Sustainable Finance Development Roadmap

Index

Introduction/Background

In 2020, ABAC's Finance and Economics Working group (FEWG), developed recommendations to the APEC Finance Ministers on how to enable lenders and investors incentivize companies and organizations in the region effectively, in order to align their practices progressively with sustainable development goals[1]. This work, led by ABAC Japan, Chile and Australia, involved the help of major international industry associations, institutional investors and multilateral institutions who provided their insights in a series of webinars that ABAC jointly organized with APFF throughout the year.

During their dialogue in 2020, APEC Finance Ministers welcomed ABAC's recommendations on ESG finance. ABAC proposed an inclusive process of developing global standards, frameworks, principles and best practices, as well as addressing fragmentation in policies and approaches[2] to enable the financial sector to act as a catalyzer for APEC companies to transition and align to SDGs. Finance Ministers also welcomed the proposal to establish a platform, the Sustainable Finance Development Network (SFDN), (which has since then been formed) to support these goals.

In order to set the stage for an efficient and effective support, the SFDN has set as one of its initial deliverables to develop (and periodically update) and present a roadmap to APEC Finance Ministers. The focus of this roadmap is to promote coherence of approaches to support ESG finance among member economies and strengthen the region's role in the development of global standards.

This roadmap includes an annex with a table that lists all the actions items the financial industry has identified as potentially necessary to develop sustainable finance from a holistic perspective, and categorizes them into focus areas and building blocks. SFDN hopes this roadmap will facilitate the network's alignment efforts while supporting existing initiatives. This roadmap should also allow a more efficient and effective process to support APEC's participation in global Fora.

About the APFF Sustainable Finance Development Network (SFDN)

The APFF Sustainable Finance Development Network (SFDN) was created as a permanent landing platform for private-public sector collaboration, to support the development of sustainable Finance in APEC Economies, ensuring that key policy principles are taken into account such as consistency and interoperability among jurisdictions to minimize fragmentation, and to ensure APEC Economies' concerns and interests are taken into account in global policy making and framework development.

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1 *Recommendations, can be found in pages 7-11 of the ABAC report to Finance Ministers: http://www2.abaconline.org/assets/ABAC_Letter_to_APEC_Finance_Ministers_2020.pdf*

2 *ABAC's Sustainability Working Group Task Force on Climate Leadership refers to this fragmentation of policies and standards in their 2021document: Climate Leadership Principles for Business.*

About this Roadmap

Roadmap Development:
This first iteration of this roadmap was developed with inputs from global financial industry players, who provided their insights as to what action items and challenges need to be addressed for them to effectively play their role as catalyzers for companies to transition and align with SDGs. After an initial work consolidating a series of thorough industry papers[3], SFDN reached out to global players[4] to validate this work and to provide additional suggested actions which in their view, prevent an efficient involvement of the financial sector.

Structure and purpose**:**
There are two main sections in this roadmap: the "Suggested Actions" section and the annexed "Building Blocks table".
In "Suggested Actions", we summarize and categorize the necessary actions that, according to financial market players, need to be addressed to effectively incentivize the financial sector to mobilize capital and act as a catalyzer for APEC companies to transition and align with SDG's. This section looks to suggest the actions that would lead to a coherent development of sustainable finance within APEC, as well as to facilitate the efforts for convergence in approaches. It also refers to current global initiatives that will affect APEC Economies, setting the stage for a coordinated effort in ensuring APEC Economies' concerns and interests are taken into account.

The "Building Blocks table" is an annex to this roadmap that presents this list of actions in detail, categorized into building blocks and focus areas. This comprehensive (and periodically updated) list of actions looks to work as a menu and working framework to assist SFDN's support to APEC Economies.

Special considerations:

- Sequencing and timing:
  There is a consensus among financial sector stakeholders, that Mobilizing Capital requires a congruent action and to the extent that this is feasible, that these actions be addressed as simultaneously as possible. Having said that and consistent with current government priorities, we agree that the main initial focus should be on developing Climate Finance (adaptation and mitigation) amongst APEC economies and then building upon approaches that have been effective in developing Climate Finance to address other areas of Green Finance (environmental risks, natural resources, biodiversity and pollution prevention).

- Holistic Approach considerations:
  This roadmap looks at the development of sustainable finance as a catalyzer of APEC companies'

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[3] *The development of the first iteration of this roadmap has been largely facilitated by the comprehensive work of SFDN's Advisory Committee leads: Global Financial Markets Association (GFMA) and Boston Consulting Group (BCG) in their paper* ***"Climate Finance Markets and the Real Economy,"*** *which outlines market-wide and sector-specific recommendations necessary to accelerate the investment in climate finance. The paper includes a call to action section for coordinated and concerted action by the public, social, and private sectors, to significantly scale the Climate Finance Market Structure (CFMS) over the next three decades.*
Other papers worth mentioning and considered for this iteration of the roadmap are:
- ISDA's: ***Overview of ESG-related Derivatives Products and Transactions.***
- GFMA/BCG Global Principles for Climate Taxonomy.
This consultation process with global stakeholders also provided valuable inputs to align stakeholders' initiatives behind the roadmap building blocks.

[4] *A list of some of the stakeholders that collaborated with inputs to the building blocks table is located at the end of this document under "Acknowledgments"*

transition and alignment to SDGs from a holistic perspective. All identified potential paths and actions that result in enabling the financial sector to play this role are included in this roadmap. Having said that, some specific considerations need to be considered:

- Applicability and relevance: Some action items and even complete building blocks might not be applicable or relevant to particular Economies
- Some action items might repeat in two or more building blocks as they are presented with a different scope in mind in each block.[5]
- In some cases, specific action items could result in cooperation and collaboration among APEC Economies[6].
- Supplementary building blocks and actions: some action items and building blocks might supplement each other. Following one particular path (and its corresponding building blocks and actions) might make others obsolete[7].
- Each Economy is best prepared to define its own approach and prioritization strategy. SFDN will support each Economy in their own path and sequencing order and the action items in which they seek support and private/public collaboration.

Dynamic Nature:

The initial iteration of the Roadmap presented to Finance Ministers at 2021's AFMM includes the inputs from an initial outreach to financial market sector stakeholders that took place during the month of June of this year. SFDN plans to seek continuous additional inputs and periodically update the Roadmap and the annexed table of Building blocks. We expect to present an updated iteration of this Roadmap by Q4 2021. SFDN plans to update this roadmap on an annual basis, so that each year it can be used by the Economies to provide the upcoming Chair with their inputs as to what building blocks and actions should in their view need to be prioritized in the upcoming year.

As the work of the various SFDN work streams results in action-specific recommendations, these will be either included or referenced to in upcoming iterations of this roadmap.

Suggested Actions

Each Economy is best prepared to define their own approach and prioritization strategy in developing sustainable finance. SFDN will support each Economy's path and sequencing order and the action items in which they seek support and private/public collaboration.

Having said that, there is a consensus among stakeholders in the Financial Sector that effectively incentivizing and enabling them to mobilize capital and act as a catalyzer for APEC companies to

5 For instance, a particular action item such as Investor Stewardship codes can appear as a tool in one building block such as Mitigation and Adaptation, and as an area for development in other building block as it is in the case of the Investor Stewardship and Engagement building block.

6 *For example, Derivatives markets provide risk management tools for businesses and investors. They also enhance transparency and price discovery through mechanisms such as the provision of forward information. In that sense, developing the derivatives markets for climate risk mitigation and allocation of risk to most appropriate financial market participants is most probably a relevant building block for any jurisdiction. Having said that, some jurisdictions have not been able to develop derivatives markets of any sort and local development of these markets is simply not feasible. However, in Jurisdictions where this is the case, this roadmap suggests exploring collaboration with more developed jurisdictions to address, develop and market hedging instruments for less developed ones.*

7 *When looking at Carbon Markets, other regulations such as setting a deadline on the sale of combustion engines for land transport could potentially have an equivalent effect to establishing a carbon price.*

transition and align with SDG's requires a congruent action and approach that should take into consideration the following principles:

- Global Consistency
    - Principles for developing climate finance taxonomies
    - Minimum consistent, comparable and reliable disclosures requirements based on climate finance materiality
    - Coordination in Policy Making with the goal of avoiding regulatory arbitrage

- Science Based targets and timeline to design Transition Pathways / Timing and Scope by
    - Jurisdiction
    - Sector
    - Regional-Sector Specific (Alignment and Consistency)

- Public Private Coordination and collaboration topics and priorities
    - This roadmap presents a Building blocks table as a working framework for this purpose
    - Identify regional context, challenges and nuances that need to be brought to global standards/frameworks/policies Fora
    - Identify areas that require consistent approaches

- Target audiences and action-implementation stakeholders
    - The different categories of Sustainable Finance

<u>Principles for developing climate finance taxonomies:</u>

Globally harmonized, objective, science-based taxonomies will be key enablers in scaling Climate-Aligned Finance.

Today, there is not a consistently applied definition of "climate-aligned" finance, particularly as it relates to transition finance (i.e., activities that may reduce emissions but are not objectively low or near-zero carbon). This uncertainty, coupled with the lack of global guiding principles for the development of Climate Finance taxonomies, leads to both a lack of investment driving increased transaction costs for issuers and the risk of greenwashing for investors.

The taxonomies and financing must go beyond the use-of-proceeds model, to include a broader set of investments that account for entity-level activities and a broad range of financial instruments. Taxonomies will be essential for determining whether investments in these activities are aligned with climate goals and science-based transition pathways. However, due to regional and sectoral nuances, pathways to transition will be different across jurisdictions and industries. For this reason, a single global taxonomy is unlikely to be viable; however, a consistent set of global principles can be applied across all jurisdictions and industries to ensure activities are aligned with Paris goals. [8]

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8 GFMA, SIFMA, AFME, ASIFMA, BCG and leading global banks developed a series of Global Principles for Developing Climate Finance Taxonomies.

Climate Finance taxonomies should use science-based transition pathways; metrics and thresholds should be informed by regional and sector transition targets; each intended use case should be clearly outlined; and its use in financial products and transactions should be disclosed and supported by robust independent verification to avoid the potential risk of greenwashing.

Global policymakers, standard setters, and market participants should agree on a minimum set of global guiding principles and definitions to underpin taxonomies across regions. Further, policymakers, standard setters, and individual institutions should align their taxonomies to globally consistent definitions to promote this common understanding.

Minimum consistent, comparable and reliable disclosures requirements based on climate finance materiality:

Internationally consistent material disclosures, taking into consideration best practices emerging from existing standards and global frameworks to deliver comparable, comprehensive, decision-relevant climate data is essential for the development of Sustainable Finance as a catalyzer for transition and alignment with SDG's. Climate-related disclosures by banks and institutional investors have dependencies on non-financial corporate disclosures, and therefore, importantly, detailed disclosures and regulatory reporting requirements for capital market participants should not front-run the adoption and capacity of corporates to provide such financially material disclosures.

APEC Economies should continue to develop consistent ESG and climate-related disclosure frameworks for financial and non-financial corporates aligned with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations and that provide a real benefit to providers and users of climate data. They should continue efforts to accelerate adoption of these disclosure frameworks. In developing a strategic plan to create these frameworks, APEC Economies should take into consideration the existing global efforts to develop global ESG/Climate reporting standards, in particular the announced upcoming work, which will be led by IFRS-SSB and backed by IOSCO. Local strategic plans should provide the necessary flexibility and consideration for future global alignment.

The International Financial Reporting Standards (IFRS) Foundation announced the formation of a working group to accelerate convergence in global sustainability reporting standards focused on enterprise value and to undertake technical preparation for a potential international sustainability reporting standards board under the governance of the IFRS Foundation. The working group will provide a forum for structured engagement with initiatives focused on enterprise value reporting, as described by the Trustees' 8 March statement. It also responds to the 24 February statement by the International

The principles set out in this paper address the principles and considerations needed to develop the globally consistent and comparable taxonomies essential for supporting a Climate-Aligned Finance.
This paper recommends five key global guiding principles to be considered in the development and the enhancement of global Climate Finance taxonomies, including:
I. Climate Finance taxonomies should be broadened beyond use of proceeds to capture entity-level activities and all eligible sources of capital.
II. Climate Finance taxonomies should be objective in nature, supported by clearly defined metrics and thresholds aligned to the Paris Agreement, and science-based targets.
III. Climate Finance taxonomies should have a consistent set of principles and definitions, but provide flexibility for regional and temporal variation to align with differences in transition pathways.
IV. Climate Finance metrics should be defined and applied to sectors using science-based targets, balancing ease of use with transparency and robustness to both assess climate impact and support third-party verification.
V. Climate Finance taxonomies should be based on a governance process that is robust, inclusive, and transparent, and has the flexibility for continued evolution.
https://www.gfma.org/wp-content/uploads/2021/06/global-principles-for-climate-taxonomy.pdf

Organization of Securities Commissions (IOSCO), calling for the coordination of work to drive international consistency of sustainability-related disclosures with a focus on enterprise value creation.[9]

SFDN has engaged with IFRS with the purpose of supporting this working group, providing a regional private/public forum for APEC Economies to discuss and find a consensus on the region's context, nuances and interests that should be taken into consideration in the development of global standards. This forum aims to coordinate an assessment of matters that might have an impact in APEC Economies, setting the stage for a coordinated effort in ensuring APEC Economies' concerns and interests are taken into account.

Further opportunities for public/private collaboration and support exist to address the various challenges that curtail efforts to improve reporting. We encourage companies to leverage SFDN as a forum and platform to plan effective and efficient approaches to address these challenges.[10]

SMEs are an essential part of APEC Economies in their road to net-zero. They are not only relevant by themselves, but also as part of large companies supply chains and their own transition and SDGs alignment plans. Although some actions are universally relevant to both SMEs and larger/listed companies, there is a need to develop specific support mechanisms to incentivize and support SME's.[11]

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9 https://www.ifrs.org/news-and-events/news/2021/03/trustees-announce-working-group/
10 Some of these challenges are:
- Data gaps and holes: The current ESG data landscape is plagued by data gaps and data holes. The former refers to missing information related to a specific data point that is already being collected. For example, data on greenhouse gas (GHG) emissions is well defined, but not all companies report it.
While the industry is familiar with the issue of data gaps, there is an even greater issue with data holes – missing datasets that are not collected at all or that are not available for analysis, such as data on biodiversity risks which has poor availability and is not reflected in reporting.
The Future of Sustainable Data Alliance (FoSDA) is looking to answer the question "What data do investors and governments need to deploy capital sustainably and in line with the requirements of regulators, citizens and the market now and in the future?"
SFDN will provide FoSDA a forum within APEC to collaborate with other industry experts
https://futureofsustainabledata.com/
- Reporting burden and costs: Although this challenge is relevant to all players, it is particularly critical in the case of SMEs. SFDN provide a forum for innovation experts to engage and explore ways in which technology could support both the reporting and structuring on disclosed data, reducing time and costs involved. SFDN has already engaged in initial conversations with some stakeholders such as UNDP/FC4S and Singapore MAS.
- Capacity building and implementation of TCFD Recommendations: While IFRS starts working on developing a global reporting framework aligned with TCFD, there are a series of challenges that both financial and non-financial institutions face to start implementing these recommendations that precede the actual disclosure of information. SFDN has been advocating the Japanese Consortium model as a successful experience for market-led approaches. A Mexican TCFD Consortium pilot proposal was presented by SFDN and is already supporting its early stages of implementation. SFDN has established a channel of collaboration between Japanese and Mexican stakeholders to support this pilot that will hopefully provide a proof-of-concept for other Economies to explore as a potential path to support the adoption of TCFD recommendations.

11 SMEs challenges can be divided into two key areas:
1 – General support, education, awareness and capacity building to assist SMEs transition plans. SFDN means to provide a forum to ICC's SME Climate Hub as an effective mechanism to provide support in this area.
https://businessclimatehub.org/

2- Financial incentives to start and keep transitioning: this area requires to address the transitioning financing supply side of the equation. Some key players have already been doing a commendable work in this area to which SFDN plans to provide a support forum and platform.
Considering that financing sources for SMEs are focused on bank lending, SFDN means to provide a forum to support IFC's SBN (Sustainable Banking Network) existing relevant work for SME's transition financing and to IFC's SME Finance Forum. Additionally, it will support existing stakeholders, which are supporting the development of comparable KPIs and Targets to support the development and implementation of key transition-financing mechanisms such as sustainability-linked loans.
IFC's Sustainable Banking Network (SBN)
https://www.smefinanceforum.org/

Coordination in Policy Making with the goal of avoiding regulatory arbitrage:

Regional and Global coordination is advisable in the process by which each Economy develops, commits to and implements their own effective and proportionate policies, fiscal programs and legislative action that will support the achievements of their Paris targets as well as in the development of specific mechanisms and incentives.

Financial regulators should drive toward global consistency of regulatory principles and frameworks—and alignment of prudential, market, and conduct regulation—to avoid potential regulatory arbitrage across jurisdictions, or across segments of the Banking and Capital Markets sector.

Although this type of coordination might be better addressed by public sector Fora, SFDN can provide a public/private forum to bring together experts from the financial sector and assist APEC Economies in identifying which topics might require coordination. These include the development of aligned approaches, principles, policies and frameworks among APEC Economies and other regions, in order to achieve such consistency.

If required, SFDN and ABAC's Advisory Group on APEC Financial System Capacity Building could collaborate in building effective Capacity Building mechanisms.

Science Based targets and timeline to design Transition Pathways / Timing and Scope:

Stronger global goals on GHG emissions should be established, together with appropriate corresponding transition pathways. Governments should commit to targets for their jurisdictions that align with Paris Agreement ambitions of limiting global warming this century to 1.5°C above pre-industrial levels, and translate these targets into domestic/regional environmental policies, industrial/sectoral policies (as well as regional-sector alignment), and fiscal and monetary programs.

These policies, programs, and incentives should support and accelerate the development of low-carbon technologies needed to achieve Paris Agreement targets, several of which are not yet commercially viable. Further, governments should align their COVID-19 recovery funding and economic stimulus packages to pursue inclusive, sustainable, and green recovery.[12]

SFDN can provide a forum for Corporates and their industry associations to coordinate and collaborate with the scientific community, standard-setting bodies, financial institutions, and governments to accelerate the development and alignment of sector- and region-specific transition pathways (and regional-sector specific alignment) to achieve Paris Agreement climate goals, including viewpoints on where there is still evolution expected.

Transition pathways should be based on inherent structural differences across different regions and factors such as geography, industrial mix, etc., and should be flexible to account for uncertainties of technological and scientific progress, and industry-specific solutions.

Climate Finance taxonomies are contingent on regional and sector-specific science-based transition

12 For example, given ongoing relief efforts from governments for the Aviation sector, they should consider including emissions targets and other covenants within COVID-19 relief packages in order to accelerate decarbonization.

pathways that clearly outline the technology paths and interim and final targets. Standard setters should calibrate thresholds to interim targets along the transition pathway, as opposed to focusing only on end-state targets. Thresholds for greenhouse gas (GHG) emissions reduction or carbon intensity, for example, should trend toward zero over time across all regions, but applying too stringent of thresholds today may preclude transition activities from being considered climate-aligned and isolate hard-to-abate sectors from investment. Thresholds should also be calibrated based on pathways certain regions choose to take instead of being universal for all regions. As regional targets and pathways may differ, the "entry" threshold should reflect the difference. Moreover, as targets and pathways evolve over time, thresholds may change accordingly. To the greatest extent possible, regions should aim for consistency in the metrics used to measure underlying economic activity, but also have flexibility on the setting of thresholds.

Recognition of different threshold targets, as well as pathways tailored for emerging economies, will be important in APEC. A number of APEC economies are today heavily coal dependent, with power generation, iron and steel manufacturing, buildings, and transportation all requiring significant investment to support decarbonization objectives. Governments have the challenge of balancing improvement in environmental standards with economic growth to support industrialization and urbanization, and advance the living standards of rapidly growing populations. Emerging markets in APEC will therefore have a different transition pathway to curbing emissions from developed economies, and applying too stringent a threshold in these markets may inhibit or delay overall design, and investment in, transition pathways.[13] Taxonomies in APEC should still support standard key metrics but allow for regional and temporal variation in threshold levels, as well as some nuances in preferred pathways.

Public-Private Coordination and collaboration topics and priorities:

This roadmap includes an annex, which looks at the individual building blocks and actions points that Economies potentially need to address from a holistic perspective in sustainable finance development. The development of this list of action points included a consultation to global financial and public sector stakeholders. SFDN will be updating these building blocks and action points in future iterations of the roadmap, as they gather additional inputs from their engagement and support in sustainable finance with global stakeholders.

Consistent with current government priorities, we agree that the main initial focus should be on developing Climate Finance (adaptation and mitigation) amongst APEC economies and then building upon approaches that have been effective in developing Climate Finance to address other areas of Green Finance (environmental risks, natural resources, biodiversity and pollution prevention).

This Building Blocks table works as a common menu and a working framework to guide SFDN's interaction with APEC Economies around sustainable finance development:

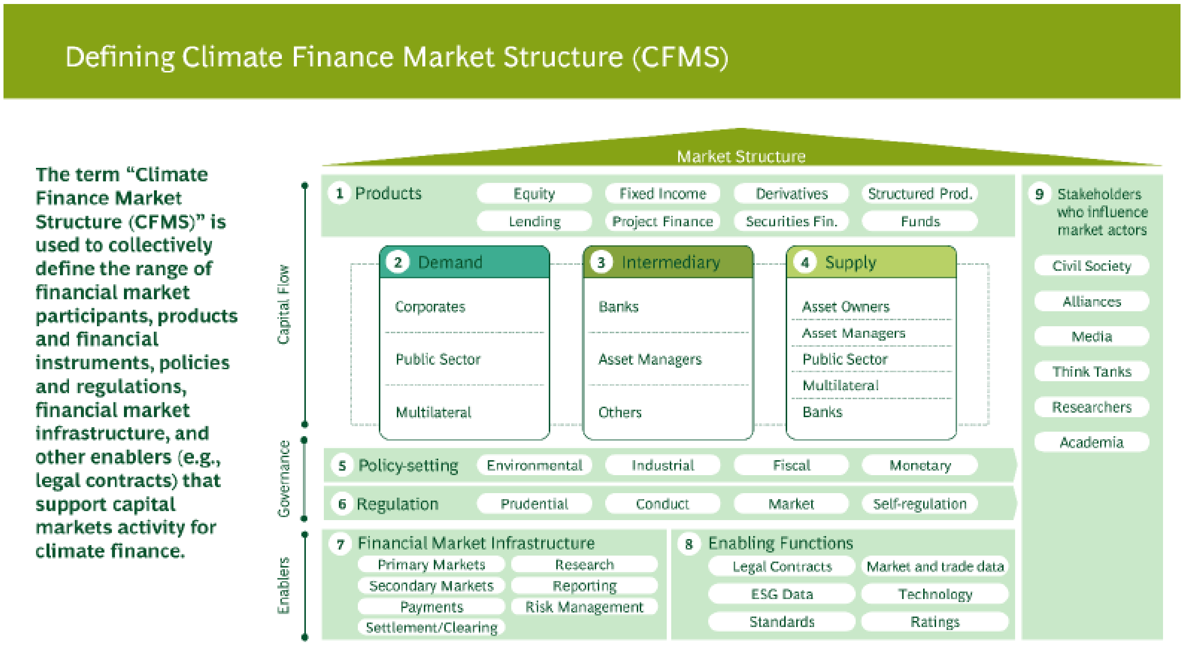
13 For example, a legitimate transition pathway for these economies today may include the use of abated natural gas as an interim replacement for coal while they scale renewable-energy capacity for future use..

- Providing a common stage to assess alignment in each Economy's approach
- Giving Economies the possibility to get involved in the development of this roadmap, suggesting any actions perceived as missing according to their experience and developing a consensus on the contents of the table.
- Allowing SFDN to learn APEC Economies' prioritization strategies and relay this information to the upcoming Chair Economy, to assist in defining APEC Region's priorities in public/private collaboration around sustainable finance and SFDN deliverables for the upcoming year.
- Helping and encouraging Economies to identify action items in which they seek public/private coordination and collaboration from SFDN.
- To identify global policymaking and framework development Fora that APEC should actively participate in and in which regional coordination is necessary to ensure APEC Economies' concerns and interests are taken into account. To bring together the collective brainpower of the network to identify regional context, challenges and nuances that need to be considered by these Fora addressing global alignment of standards, frameworks and policies.
- Providing a framework for SFDN to assist in aligning stakeholders' initiatives and at the same time, preventing fragmentation.
- For SFDN to provide a public/private collaboration forum where APEC stakeholders can identify and discuss areas that might require regionally-consistent approaches within APEC (as well as regional alignment at global level) such as data, Prudential Risk Management and Carbon pricing integration in the cost of emissions.

Target audiences and action-implementation stakeholders:

Sustainable Finance development requires the involvement of the whole ecosystem, both participating in coordination and collaboration efforts, as well as addressing the challenges and action items that are implicit to their business and scope. Economies should align approaches and efforts targeted to specific stakeholders in their sustainable finance ecosystems. At the same time, each stakeholder should address their challenges and action items in coordination with their peers in other APEC Economies, seeking opportunities to develop efficiencies and prevent fragmentation.
In some cases, stakeholders from an APEC Economy with more developed markets could potentially provide support to their peers in less developed ones on specific action items and needs, which are not feasible in the latter[14].

14 This is the case, for instance, in developing derivatives markets to transfer risks. Some markets, which have not developed any type of derivative markets and where this is not feasible, could be supported by other more developed markets in which these instruments could be traded to provide hedging instruments (and liquidity) to address risks in less developed Economies.



Source: Climate Finance Markets and the Real Economy. BCG/GFMA

These stakeholders all play different roles in the development of sustainable finance. However, all of them are inter-related and affect others in this ecosystem. Developing a strategy around sustainable finance needs to take in consideration the strings of cause and effect that these players and their roles have with one another. These strategies require a phased approach in which careful attention is necessary to the different timings among the various stakeholders. In some cases there is a sequential pattern in which one stakeholder needs to develop an action item before other stakeholder is able to develop their own. For example, Financial Institutions rely of comprehensive, material and comparable corporate disclosure to incorporate in their own investment and lending processes, as well as their own disclosure practices. Therefore, a capacity building strategy cannot be limited to a fraction of these stakeholders.

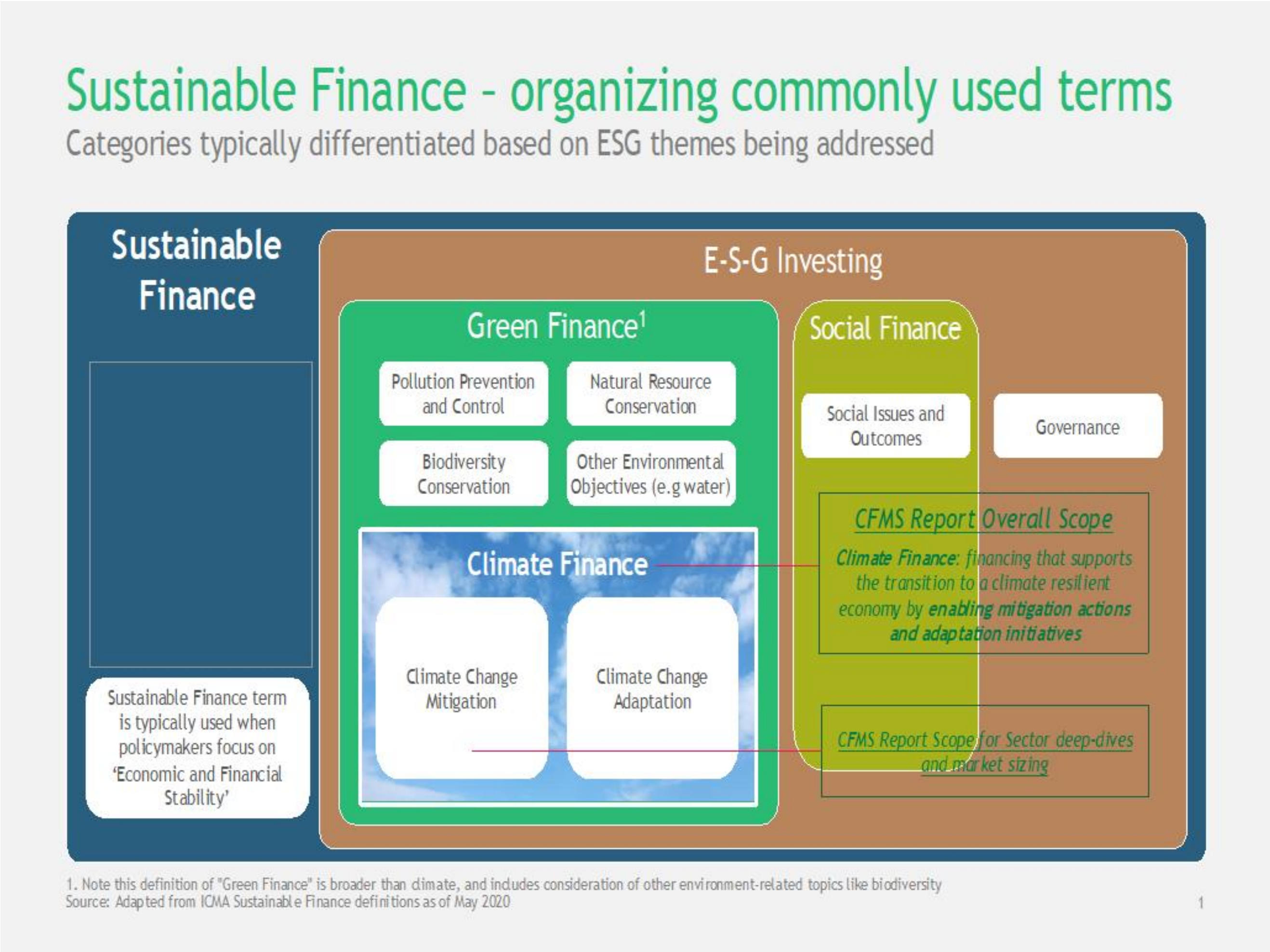
Finally, some of these stakeholders play a key role influencing others to take action. It is key to support these stakeholders' advocacy, thought leadership and influence efforts, both providing them effective platforms, promoting and providing incentives for their collaboration and coordination with one another, as well as supporting their development of competencies and knowledge for a more effective action driving change, including practical application of social psychology and behavioral science.[15]

15 Although seven out of 10 French youth say they are committed to climate change, nearly half say they do not know how to take action.
The city of Paris is proposing a Climate Academy to train and certify young people aged 9-to-25 to lead the ecological transformation of Paris.
The city's idea is compelling because Paris has already done extensive stakeholder engagement, bringing together representatives of 21 youth associations to lay a strong foundation for the work.
Suggested reading related to supporting advocacy:
- https://www.bloomberg.com/news/articles/2021-06-21/guerrilla-war-divorce-gangs-hold-secrets-for-defusing-climate-disputes?sref=rUqT5tfD
- https://www.washingtonpost.com/magazine/2021/04/26/coronavirus-vaccines-ad-council/
- https://jonahberger.com/books/the-catalyst/
- China's experience to support NGO's Litigation https://www.bloomberg.com/news/articles/2021-06-19/climate-litigation-must-navigate-china-s-complex-legal-system?sref=rUqT5tfD

SFDN is a forum that will seek to align and support efforts, from and for these various stakeholders, identifying and addressing potential overlapping efforts that could lead to fragmentation and curtail efficiency.

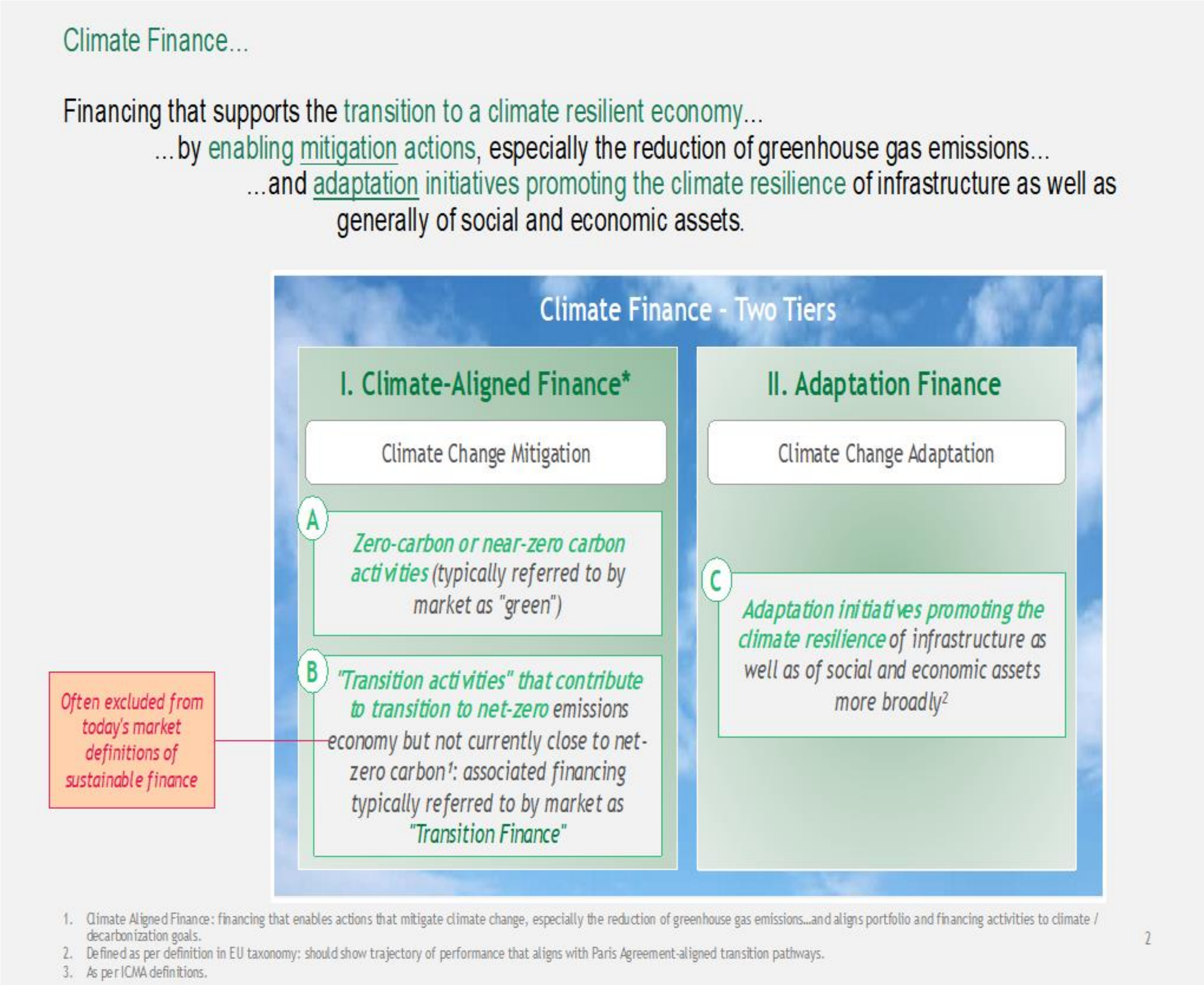
The different categories of Sustainable Finance:

Global coordination requires a clear understanding of how we define Sustainable Finance and its different categories. These are defined based on the different ESG themes they address:



Climate Finance is defined as the Financing that supports the transition to climate resilience economy by enabling mitigation activities, especially reduction of greenhouse gas emissions, and adaptation initiatives promoting the climate resilience of infrastructure as well as generally of social and economic assets.

Transition activities are those that contribute to transition to a net zero emissions economy, but do not currently close to net zero carbon. The associated finance of these activities is typically referred to by the market as transition finance.



Conclusion:

Since its creation by Finance Ministers, the Asia Pacific Financial Forum (APFF), under the management of ABAC, has been an effective public/private collaboration platform. The work focus of APFF has always been demand-driven and this same spirit follows the way SFDN will operate supporting the Economies' Development of Sustainable Finance to enable the Financial Sector to play their role as catalyzer of APEC Economies Transition process and alignment with SDGs.

The building blocks table in this roadmap presents a menu and a working framework from which Economies can define the areas in which SFDN could provide them support.

The APEC Chair Economy can determine which Building Blocks and/or Action Items they want to prioritize and from which they will request APFF SFDN specific deliverables.
Other Economies can also request APFF SFDN support and private/public collaboration on specific building blocks and action items.
SFDN will also use these roadmap building blocks to align, collaborate with and support existing stakeholders' initiatives.
Finally, in those building blocks that involve global coordination, this roadmap helps define areas that require efforts to increase the role of APEC in global fora addressing this coordination.

Acknowledgements:

We would like to express our gratitude to some of the institutions that contributed with their valuable inputs to this first iteration of this roadmap.

In Alphabetical order:

Asian Development Bank (ADB)
ASIFMA
Banco de Mexico/ Mexico Sustainable Finance Committee
BCG
Bloomberg / Bloomberg New Energy and Finance (BNEF)
Deutsche Bank
HSBC
GFMA
IFC SME Finance Forum
Inter-American Development Bank (IDB)
ISO
Lloyds Bank
Mexican Bank Association (ABM)

Annex

Building Blocks Table

Important considerations – complementary work:

As a complement to this APEC roadmap, we encourage to consider the G20 Sustainable Finance Working Group´s Roadmap, which considers five focus areas:

1. Market development and alignment of financial flows with sustainability goals
2. Access to reliable and timely information on sustainability risks opportunities and impacts
3. Assessment and management of climate and sustainability risks
4. Leverage public finance and incentives
5. Cross cutting elements.

An additional complement we encourage to consider is the "Roadmap for addressing climate-related financial risks" published by the FSB. This roadmap[i] includes four pillars:

1. Firm level disclosures
2. Data
3. Vulnerabilities analysis
4. Regulatory and supervisory practices and tools.

We welcome the work by G20´s SFWG and FSB and look forward to future coordination and collaboration with APEC SFDN.

Consistent with current government priorities, we agree that the main initial focus should be on developing Climate Finance (adaptation and mitigation) amongst APEC economies and then building upon approaches that have been effective in developing Climate Finance to address other areas of Green Finance (environmental risks, natural resources, biodiversity and pollution prevention).

Summary List:

Asia-Pacific Economic Cooperation (APEC) Asia-Pacific Financial Forum (APFF) Sustainable Finance Development Network (SFDN) Climate Finance and the Real Economy Roadmap First Iteration 2021 Building Blocks	
Focus Area 1: Motivating Capital Addressing Market Failures in Order to Accelerate Climate Action from the real Economy and Enhance the Flow of Climate-Aligned Capital.	**Focus Area 2: Financial Market Structure (FMC) Changes:** Structural Changes to Make the Climate Finance Market more Efficient, Transparent and Scalable.
Building Block 1.1: Carbon Markets	**Building Block 2.1: ESG/Climate Disclosure**
Building Block 1.2: Environmental and Industrial Policies	**Building Block 2.2: Global Reporting and Data Repositories**
Building Block 1.3: Fiscal and Monetary Incentives	**Building Block 2.3: Financing SME's and not-listed companies**
Building Block 1.4: Mitigation and Adaptation (Large/Listed companies)	**Building Block 2.4: Financing Products Development**
Building Block 1.5: Mitigation and Adaptation (SMEs/Not-listed Companies)	**Building Block 2.5: Derivatives**
Building Block 1.6: Sector-Specific and General Financing	**Building Block 2.6: Taxonomies**
Building Block 1.7: Multi-sector collaboration	**Building Block 2.7: Investor ESG Integration**
Building Block 1.8: Sustainable Infrastructure/Urban Infrastructure	**Building Block 2.8: Innovation**
Focus Area 3: Climate Risk Management. *Actions Needed to Incorporate Climate Factors into Risk Management Frameworks*.	**Focus Area 4: Supporting Paradigm/Mindset-shift Momentum.** *Actions Needed to support civil society, investor stewardship and other stakeholders' engagement to influence and bring change towards transitioning and alignment with SDGs. Support efforts to lead corporate and financial sector organizations process towards prioritizing and accelerating the preparations for a low-carbon future*.
Building Block 3.1: Prevent Market Fragmentation	**Building Block 4.1: Support Civil Society and other stakeholder awareness**
Building Block 3.2: Socialization of Best practices	**Building Block 4.2: Investor Stewardship and Engagement**
	Building Block 4.3: Corporate Governance Capacity Building
	Building Block 4.4: Financial Institutions Governance Capacity Building
	Building Block 4.5: Market Structures to support Sustainable Finance Capacity/Competencies Building and Coordination

Building Blocks Table:

Asia-Pacific Economic Cooperation (APEC) Asia-Pacific Financial Forum (APFF) Sustainable Finance Development Network (SFDN) Climate Finance and the Real Economy Roadmap First Iteration 2021 Building Blocks
Focus Area 1: Motivating Capital Addressing Market Failures in Order to Accelerate Climate Action from the real Economy and Enhance the Flow of Climate-Aligned Capital.
Building Block 1.1: Carbon Markets. Develop deep, broad and liquid markets that support global capital flow of climate finance products by improving market liquidity (to increase volumes), efficiency (to lower costs) and interoperability (to improve the connectivity of currently very fragmented markets). Focus on market structure and operational issues to foster carbon prices globally that reflect the full cost of emissions to incentive investment and cross border capital flow.
Suggested Action Items • Voluntary/compliance markets interlinkages and differences • Offsets—credibility, legitimacy, reliability (including transition pathways) • Product development/use and build deep and broad markets (liquidity) • Carbon Taxing/Dividends • Carbon border adjustment mechanisms • Emissions trading systems (ETS) • Cross-Border Interoperability • Carbon-crediting mechanisms • Results-based climate finance • Internal carbon pricing • Regulatory barriers • GHG calculation methods for qualifying carbon emissions[ii] • Externalities[iii]
Focus Area 1: Motivating Capital Addressing Market Failures in Order to Accelerate Climate Action from the real Economy and Enhance the Flow of Climate-Aligned Capital.
Building Block 1.2: Environmental and Industrial Policies. Committing and implementing effective and proportionate policies, fiscal programs, and legislative action that will support achievement of the targets established in the Paris Agreement. Transition pathways developed based upon effective and measurable Science based targets (SBT).
Suggested Action Items • Economies communicating Net Zero commitments / Commitment to Paris-aligned pathways • Evaluate the role of Fiscal Drivers (e.g. subsidies, tax credits, cross sectorial policy alignment) • Clean energy policies • Green Covid-recovery policies/alignment • Sector-specific policies[iv] • Support to transition towards low GHG emission solutions • Incentives to fund early-stage decarbonization technologies (e.g. Medium-term subsidies - investment tax credits/accelerated amortizations - in technology investments with high upfront cost and longer payback periods). • Develop minimum standards to support consistent, comparable and reliable data for sector and region-specific company disclosures[v] • Integrate transition pathway/ESG in lending criteria

Focus Area 1: Motivating Capital Addressing Market Failures in Order to Accelerate Climate Action from the real Economy and Enhance the Flow of Climate-Aligned Capital.
Building Block 1.3: Fiscal and Monetary Incentives. Governments and domestic/multilateral development banks motivating the mobilization of private sector capital through blended public/private finance solutions.[vi]
Suggested Action Items • Structured forms of Catalytic Capital/Blended Finance • ESG Supply Chain financing initiatives • New funds requiring climate performance for entry or climate performance linked costs of capital (e.g. climate performance bonds) • Alleviate the cost for small companies to produce additional ESG disclosures through the introduction of fiscal incentives • Guarantees provided by MDBs and IFIs • Sustainability-linked financing • Funding visibility and sharing of best practices in developing regulatory incentives
Focus Area 1: Motivating Capital Addressing Market Failures in Order to Accelerate Climate Action from the real Economy and Enhance the Flow of Climate-Aligned Capital.
Building Block 1.4: Mitigation and Adaptation (Large/Listed companies). Financial Education and climate finance risk awareness building at an executive level to support corporates' ability to actively prioritize and accelerate their own preparations for a low-carbon future, embedding this as a strategic imperative for the board and senior management.[vii]
Suggested Action Items • Financial education and climate risk awareness building at executive level • Development of Governance mechanisms to build efficiency in approaches and goals setting • Internal carbon pricing in decision-making and cost allocations • Climate risk management and data practices • Leverage Private voluntary initiatives such as Climate Action 100+, SBT, etc. • Development of institutional investors' stewardship code focusing on ESG investing • Financial institutions involvement to guide corporate clients to mainstream ESG in their operations and to integrate ESG as part of their lending criteria.[viii] • Addressing Current Accounting Practice Constrains to Net Zero Transition[ix]
Focus Area 1: Motivating Capital Addressing Market Failures in Order to Accelerate Climate Action from the real Economy and Enhance the Flow of Climate-Aligned Capital.
Building Block 1.5: Mitigation and Adaptation (SMEs/Not-listed Companies). Addressing both capacity building and challenges for SMEs and Not-listed companies in transitioning, as well as identified information or management resource constraints. Initiatives to raise knowledge levels among smaller firms and open pathways to transition for affected companies to improve the resiliency of the small corporate sector, unlocking potential growth opportunities otherwise missed.[x]
Suggested Action Items • Transition planning and implementation for SMEs and not-listed corporates • Information and management resources development and support setting up sustainability policies • Developing pathways to transition • Financial incentives mechanisms • Procurement/supply chain policies designed to favor or support climate action by relevant companies • Phased in reporting obligation to ensure readiness and quality of reporting • Financial institutions involvement to guide corporate clients to mainstream ESG in their operations and to integrate ESG as part of their lending criteria.

Focus Area 1: Motivating Capital Addressing Market Failures in Order to Accelerate Climate Action from the real Economy and Enhance the Flow of Climate-Aligned Capital.

Building Block 1.6: Sector-Specific and General Financing. Coordination and collaboration among corporates and their industry associations with the scientific community, standard-setting bodies, financial institutions, and governments to accelerate the development of sector-and-region-specific transition pathways to achieve Paris Agreement climate goals, including viewpoints on where there is still evolution expected. Additionally, developing science-based targets in order to set businesses on a pathway to alignment with global climate goals.[xi]
Addressing other enablers for lenders and investors to fund companies' transition journey and encourage them to initiate this journey.

Suggested Action Items

Sector-Specific:

- Sector-region-specific transition pathways[xii]
- Setting science-based climate targets
- ESG-based supply chain financing innovations, involving DFIs and private sector
- Domestic Taxonomy

General:

- Elimination of Regulatory barriers that prevent financing
- Regulatory incentives for the creation of products and solutions
- Mobilizing new sources of patient, higher-risk capital from private sources.
- Scale use of pooling and securitization
- SME Financing Mechanisms as incentives for Transition
- Develop comparable KPIs, Targets to enable pooling of sustainability-linked loans
- Setting escalating policies/targets/milestones to increase market confidence in timing of transitions
- Mapping of ESG Activities
- Promote intra-regional fund-raising and investments to ensure efficient allocation of capital
- Creating demand for financial products
- Strengthen the capacity of local service providers to provide external review/green bond verification services to local issuers using international standards/principles
- Technical assistance to potential thematic bond issuers

Focus Area 1: Motivating Capital Addressing Market Failures in Order to Accelerate Climate Action from the real Economy and Enhance the Flow of Climate-Aligned Capital.

Building Block 1.7: Multi-sector collaboration. Collaborative multi-sector effort for transversal risks and opportunities

Suggested Action Items

- Address transversal risks and opportunities in decarbonization and adaptation
- Cross-sectoral collaboration in developing new business models
- Linked programs designed to combine action to address climate change and nature protection, circular economy and social challenges[xiii]

Focus Area 1: Motivating Capital Addressing Market Failures in Order to Accelerate Climate Action from the real Economy and Enhance the Flow of Climate-Aligned Capital.

Building Block 1.8: Sustainable Infrastructure / Urban Infrastructure.[xiv] Transforming sustainable infrastructure into a mainstream, liquid asset class.

Suggested Action Items

- Evaluate the objectives of Fast-Infra - the 'Finance to Accelerate the Sustainable Transition-Infrastructure' initiative[xv] —which aims to close the trillion-dollar sustainable infrastructure investment gap, with urgency, by transforming sustainable infrastructure into a mainstream, liquid asset class.

Focus Area 2: Financial Market Structure (FMC) Changes: Structural Changes to Make the Climate Finance Market More Efficient, Transparent and Scalable.
Building Block 2.1: ESG/Climate Disclosure. Developing the necessary steps to implement disclosures of corporate-specific financially material, decision-relevant data relating to climate-risks and opportunities. Focusing efforts on globally consistent disclosure frameworks, developed in consultation with industry participants and with adequate runway for implementation, to strengthen the transparency and comparability of climate risk data. Providing local inputs to global Harmonization initiatives will also mitigate risk of costs/burden for SMEs, help identify the necessary climate competencies by sector, and gaps for capacity building for effective sector wide implementation.
Suggested Action Items • Global coordination is integral as minimum policies are being developed for disclosures. We agree with IOSCO[xvi] that there is an urgent need for globally consistent, comparable, and reliable sustainability disclosure standards and welcome the new Sustainability Standards Board to develop a prototype via ongoing collaboration with industry from different sectors and regions. • Specifically, prioritize efforts on Climate Finance disclosures: collaboration with IFRS/SSB Working Groups in developing Global Standards (providing APEC's voice into these groups) • Effective collaboration between industry and public sector members of the new IFRS SSB Global Disclosure Standards to support implementation of corporate reporting in 2022.
Focus Area 2: Financial Market Structure (FMC) Changes: Structural Changes to Make the Climate Finance Market More Efficient, Transparent and Scalable.
Building Block 2.2: Global Reporting and Data Repositories. Address challenges that hinder the adoption of reporting practices by corporates and financial institutions. Enhance reporting practices, content and governance
Suggested Action Items • Activities to promote standardization and comparability of data.[xvii] Standardize templates, including limited set of metrics for SMEs, to facilitate compliance with new disclosure requirements. • Transparency of regulatory reporting requirements globally including local reporting alignment • Open Access to mitigate data gaps across geographies. Support efforts to identify and address data gaps and data holes.[xviii] • Focus efforts by reflecting upon climate aligned targets agreed to by sector and regional authorities. • Assurance processes for reporting • Alignment by economies on the value/creation of data repositories[xix] (open access/utility for benefit of all managed by e.g. IMF) • ESG Business Valuation Frameworks[xx]
Focus Area 2: Financial Market Structure (FMC) Changes: Structural Changes to Make the Climate Finance Market More Efficient, Transparent and Scalable.
Building Block 2.3: Financing SME's and not-listed companies. Address financial incentives for smaller companies to transition and normalization of KPIs/Targets/Transition pathways. Addressing development of standards that take into the account both the administrative and economic costs of reporting for these companies, based on a very rigorous application of the materiality principle and corporate-specific exposure to risks that would reduce the number of metrics SMEs would report.[xxi] Initial focus on Climate Finance (adaptation and mitigation) and the need to provide flexibility to support transition finance while working toward climate-based targets by sector and region. Eventually, the underlying standards and transition pathways agreed to should be able to expand to capture environmental financing as well.
Suggested Action Items • Identify relevant KPIs, Disclosure Metrics by sector/region, aligned with climate finance targets to support comparability of financial instruments. • Financial education on the role of risk management products and government objectives. • Larger companies supply/chain participation in transitioning and disclosure[xxii] • Capacity building will include technical support by the government/state-owned banks to support SMEs and EMEs designing transition pathways based upon climate aligned targets. The role of specialized financial institutions and/or products to serve SMEs and EMEs will be integral for success

Focus Area 2: Financial Market Structure (FMC) Changes: Structural Changes to Make the Climate Finance Market More Efficient, Transparent and Scalable.
Building Block 2.4: Financing Products Development Banks and Capital Markets accelerating the development and scaling of a broad range of products and instruments in both public and private markets to meet the financing, investing, risk management, liquidity, and funding requirements of a range of market participants actively starting to transition Regulators assessing holistically any current regulatory barriers that prevent this process and encouraging the development of these products and solutions. Examples of barriers may be illustrative for other economies as they consider potential barriers, too.
Suggested Action Items • Financing sources of early stage technologies (high risk/patient long-term capital) • Addressing Emerging Market financing challenges • Financing instruments for smaller-scale projects • Blended finance structures • Capital Sources and instruments to mobilize transition finance • Streamline disclosure requirements, especially for listed companies. • Corporate governance codes revision to incorporate ESG. The G element is extremely important, as ESG should be driven from the top. • Need to cater to all kind of stakeholders. Large corporates can issue sustainable bonds, while smaller borrowers e.g. SMEs should be able to access green/social/sustainability-linked loans. This would allow financial institutions to collect data and assess exposure of their portfolios to climate risk. Central banks can run scenario analysis to introduce appropriate monetary measures.
Focus Area 2: Financial Market Structure (FMC) Changes: Structural Changes to Make the Climate Finance Market More Efficient, Transparent and Scalable.
Building Block 2.5: Derivatives Wherever it is relevant, growing the derivatives market for climate risk mitigation and allocation of risk to most appropriate financial market participants: Derivatives markets provide risk management tools for businesses and investors. They also enhance transparency and price discovery through mechanisms such as the provision of forward information. In Jurisdictions were developing derivatives markets is not feasible, explore collaboration with more developed jurisdictions to address, develop and market hedging instruments for less developed ones.
Suggested Action Items • Sustainability-linked derivatives • ESG related derivatives • Exchange traded derivatives on listed ESG-related Equity Indices • Emissions trading derivatives • Renewable Energy and Renewable Fuels derivatives • Catastrophe and Weather Derivatives • Cross-border support for jurisdictions where derivatives market is not feasible

Focus Area 2: Financial Market Structure (FMC) Changes: Structural Changes to Make the Climate Finance Market More Efficient, Transparent and Scalable.

Building Block 2.6: Taxonomies
Globally harmonized/interoperable, objective, science-based taxonomies will be key enablers in scaling Climate-Aligned Finance. Taxonomies and financing must go beyond the use-of-proceeds model, to include a broader set of investments that account for entity-level activities and a broad range of financial instruments. Taxonomies will be essential for determining whether investments in these activities align with climate goals and science-based transition pathways. However, due to regional and sectoral nuances, pathways to transition will be different across jurisdictions and industries. For this reason, a single global taxonomy is unlikely to be viable; however, a consistent set of global principles for developing climate finance taxonomies applicable across jurisdictions and industries would help with mobilization of capital across borders. Key stakeholders that should be involved include Banking and Capital Markets sector, standard-setting bodies, industry, policymakers, and financial regulators collaborating to achieve consensus in each jurisdiction, whilst adhering to principles to help align/harmonize with international best practice.[xxiii] Sector and region-specific taxonomies that are comparable, flexible in evolution in response to technological and scientific developments, and that include climate-related performance indicators and targets that correspond to Paris-aligned transition pathways.

Suggested Action Items

- Alignment of technical definitions and principles
- Address transaction costs due to lack of standardized processes and contracts, third-party verification, transaction structuring and monitoring.
- Reduction of Administrative Burden through focus on decision-relevant metrics
- Inclusion and recognition of transition activities
- Flexibility in terms of regional, technology and temporal variation
- Taxonomies of entities activities vs use of proceeds

Consistent Global Principles agreed to by industry could underpin global coordination and collaboration by all market participants, including authorities. The following 5 principles are intentionally high level to allow for flexibility in developing climate finance taxonomies:

1. Climate Finance taxonomy broadened beyond use of proceeds to capture entity-level activities and all eligible sources of capital
2. Climate Finance taxonomy developed that is objective in nature, supported by clearly defined metrics and thresholds aligned to the Paris Agreement, and science-based targets. Alignment of technical definitions and principles
3. Climate Finance taxonomy developed with consistent set of principles and definitions, but with flexibility for regional and temporal variation to align with differences in transition pathways.
4. Climate Finance metrics defined and applied to sectors using science-based targets, balancing ease of use with transparency and robustness to both assess climate impact and support third-party verification.
5. Climate Finance taxonomy governance process that is robust, inclusive, and transparent, and has the flexibility for continued evolution

Focus Area 2: Financial Market Structure (FMC) Changes: Structural Changes to Make the Climate Finance Market More Efficient, Transparent and Scalable.

Building Block 2.7: Investor ESG Integration Investor Integration of ESG/Climate Factors as data becomes more available. Investors and asset managers are accelerating integration of ESG/climate factors into their investment process, including integration of climate-related risk factors into risk and valuation models and frameworks.

Suggested Action Items

- TCFD-aligned reporting
- Integration of ESG/Climate factors in investment processes
- Risk factors and risk valuation models and frameworks
- Stress testing and scenarios
- Addressing ESG Funds/ETFs greenwashing
- Institutional investor stewardship
- Developing and Enhancing quality and transparency of ESG ratings
- ESG Business Valuation Frameworks
- Technical assistance to potential thematic bond investors

Focus Area 2: Financial Market Structure (FMC) Changes: Structural Changes to Make the Climate Finance Market More Efficient, Transparent and Scalable.

Building Block 2.8: Innovation Develop a multi-disciplined innovation mindset in scaling climate/ESG Finance. All below collectively will help scale climate finance

Suggested Action Items

- Financial product innovation (retail and institutional investors-Fintech)
- Availability and use of geospatial data for climate risk and asset performance assessment
- Use of AI/NLP to transform unstructured reporting and disclosure and comparable decision-relevant data
- Standardization of legal contract language and industry data models
- Advancements in scenario analysis and risk modeling
- Tools and platforms to promote climate finance awareness and literacy
- Assess the use of technology to address reporting burden and costs

Focus Area 3: Climate Risk Management. Actions Needed to Incorporate material and decision useful considerations of Climate Factors into Risk Management Frameworks.

Building Block 3.1: Prevent Market Fragmentation. Supervisors, policymakers, and regulators seeking to mitigate the risk of market fragmentation through increased use of ex-ante, globally consistent regulation and ex-post supervisory tools to support the development of consistent regulatory drivers, or intended barriers, aligned with the pace of climate finance developments and broader change in economic policy.

Suggested Action Items

- Global consistency and harmonization of regulatory principles and frameworks (avoiding regulatory arbitrage across jurisdictions)
- Regulation alignment with climate-finance market development and science based targets[xxiv]
- Applicability of guidance to less-significant institutions
- Definitions of materiality in climate change
- Integration of climate risk assessment in short to medium term business planning
- Assessment of impact of climate risk on financial resources (capital, funding and liquidity)
- Standards on risk disclosures
- Dynamic updates to risk management frameworks, tools and methodologies
- Phased approaches to integration of climate risk into prudential frameworks
- Assessment of financial regulation efficiency in driving change
- Interoperability
- Publication of domestic or sectoral risk assessments to focus action[xxv]
- Phased transitions in developing economies

Focus Area 3: Climate Risk Management. *Actions Needed to Incorporate Climate Factors into Risk Management Frameworks*.

Building Block 3.2: Socialization of Best practices. Banking and Capital Markets sector sharing of best practices of climate risk management capabilities, as well as increasing transparency of the integration of climate risk within firms' governance, strategy, planning, resource allocation, and risk-adjusted performance management framework.

Suggested Action Items

- Developing structures to support stakeholders' fora involvement, sharing of experiences and dialogue among players.
- Increasing transparency on climate-risk integration
- Communication programs targeting hard-to-reach sectors
- Further developing risk methodologies and tools as data gaps are addressed

Focus Area 4: Supporting Paradigm/Mindset-shift Momentum. *Actions Needed to support civil society, investor stewardship and other stakeholders' engagement to influence and bring change towards transitioning and alignment with SDGs. Support efforts to lead corporate and financial sector organizations process towards prioritizing and accelerating the preparations for a low-carbon future*.

Building Block 4.1: Support Civil Society and other stakeholder awareness. Support civil society and public opinion awareness, by training, developing guidance, governance and structure to their efforts to support effective approaches leading transitioning and alignment with SDGs. Develop training and certification programs as well as university level education. Coordinate efforts among stakeholders' associations to build efficiencies in preparing for unprecedented change. Incorporate education and advice from experts in social psychology and behavioral science to address natural resistance to change and to mitigate risk of social unrest to change.

Suggested Action Items

- Education programs by universities, community development programs, local governments, etc. to foster public awareness of climate risks.
- Transparency of any regulatory drivers that will affect existing funding options for corporates and governments.
- Legal, regulatory and public sector programs to assist SMEs in both developed and emerging markets to design transition pathways aligned to climate finance targets agreed to by economies.
- Develop communication strategies involving social psychology and behavioral science

Focus Area 4: Supporting Paradigm/Mindset-shift Momentum. *Actions Needed to support civil society, investor stewardship and other stakeholders' engagement to influence and bring change towards transitioning and alignment with SDGs. Support efforts to lead corporate and financial sector organizations process towards prioritizing and accelerating the preparations for a low-carbon future*.

Building Block 4.2: Investor Stewardship and Engagement Supporting and promoting investors and asset managers transition strategies for a Paris-aligned temperature-scenario, and GHG reductions through engagement and stewardship with their portfolio companies

Suggested Action Items

- Shareholder action and engagement
- Stewardship codes
- Collective action
- Investor Commitments
- Build awareness on how asset managers evidence how climate-related risks are taken into investment decisions to ensure the transition

Focus Area 4: Supporting Paradigm/Mindset-shift Momentum. *Actions Needed to support civil society, investor stewardship and other stakeholders' engagement to influence and bring change towards transitioning and alignment with SDGs. Support efforts to lead corporate and financial sector organizations process towards prioritizing and accelerating the preparations for a low-carbon future*.

Building Block 4.3: Corporate Governance Capacity Building. Develop effective Corporate Governance. [xxvi]
Soft regulation, best practices and governance schemes to insure corporate governance structures incorporate ESG and climate issues. Address specific challenges of SMEs.

Suggested Action Items

- Embed low-carbon mentality as a strategic imperative for boards and senior management
- Explore steps to further support their transition (e.g. Internal pricing mechanisms)
- Engagement with board and shareholders
- Elevation and integration of climate risk management
- Develop comprehensive data disclosure
- Support mechanisms for SMEs to transition and align with SDGs
- Supply chain transitioning mechanisms

Focus Area 4: Supporting Paradigm/Mindset-shift Momentum. *Actions Needed to support civil society, investor stewardship and other stakeholders' engagement to influence and bring change towards transitioning and alignment with SDGs. Support efforts to lead corporate and financial sector organizations process towards prioritizing and accelerating the preparations for a low-carbon future*.
Building Block 4.4: Financial Institutions Governance Capacity Building Develop Governance mechanisms that integrate climate change and other ESG factors into risk, lending and investment policies. Actions to establish efficient sustainability-related governance[xxvii]
Suggested Action Items • Development of sustainable finance strategies • Commitments/pledges towards sustainable finance • Support to clients' transitioning programs • Net-zero emissions commitments • Net-Zero financed emissions commitments • Transparency and disclosure mechanisms
Focus Area 4: Supporting Paradigm/Mindset-shift Momentum. *Actions Needed to support civil society, investor stewardship and other stakeholders' engagement to influence and bring change towards transitioning and alignment with SDGs. Support efforts to lead corporate and financial sector organizations process towards prioritizing and accelerating the preparations for a low-carbon future*.
Building Block 4.5: Market Structures to support Sustainable Finance Capacity Building and coordination Develop efficient and effective market structure mechanisms to support capacity building and coordination among involved stakeholders.[xxviii]
Suggested Action Items • Governance Structures to build efficiencies and coordination in training and capacity building • Scaling up resources to support Transition to low carbon activities in emerging economies • Scaling up resources to support Disclosure • Developing/promoting/requiring standards to underpin goals at domestic or international level • Collaborate with international development partners to explore ways to address market-specific constraints • Participative Peer forums • Investor/corporate dialogues • Regional collaboration platforms • Capacity building to create awareness among capital market stakeholders, including financial institutions, potential issuers, investors • Capacity Building for smaller companies on how to set up SMART targets • Developing Methodologies to build sustainable projects

Notes:

[i] FSB published this roadmap with 2 additional papers:
"The Availability of Data with Which to Monitor and Assess Climate-Related Risks to Financial Stability".
"Report on Promoting Climate-Related Disclosures"
All papers are available at: https://www.fsb.org/2021/07/fsb-chair-presents-a-comprehensive-roadmap-for-addressing-climate-related-financial-risks/

[ii] As for example provided in the ISO 14064 series. Methods of calculation need to be self-consistent within carbon-pricing schemes at domestic and international level.
ISO's Climate Change Coordination Committee (CCCC) has published Guide 84, which sets in detail the mitigation hierarchy approach to the use of offset credits/compensation as also advocated by science based targets.

[iii] Transition risk scenario analysis has an implicit or shadow carbon price or carbon tax. In addition, it is important to note that other regulations such as setting a deadline on the sale of combustion engines for land transport have an equivalent effect to establishing a carbon price.

[iv] These should include all aspects of sector specific industrial policy/taxation/support to contribute to climate action, including energy efficiency, material efficiency, dematerialization, Fintech solutions etc.

[v] There is a wide range of standards that ISO can highlight as possible contributors to achieving these bullets. The recently published technical annex to the Taskforce on Scaling Voluntary Carbon Markets contains a useful summary in pages 20-32.

[vi] Many emerging economies face very high costs of financing projects with significant positive climate externalities. Thus mechanisms to reduce the costs of financing these projects in LDCs are of great importance

[vii] Since 100 companies are responsible for 71% of global GHG emissions the it might be worth to identify which of these 100 companies are located in the APEC region and survey these companies in particular, and their plans to decarbonize. For these companies a more detailed survey along the four pillars of the TCFD recommendations could be prepared.

[viii] This would align with the sustainable financing/lending frameworks economies have been developing.

[ix] Constrained by Accounting: Examining How Current Accounting Practice is Constraining the Net Zero Transition
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3811577

[x] There are other environmental aspects that have material implications for SMEs: e.g. water usage, waste management, and investments in adaptation to increase resiliency, in addition to decarbonization.

[xi] Technologies are evolving fast in certain sectors such as solar and wind energy and regulations are not being modernized at the pace required. This unnecessarily limits efficient investments in such sectors. It is desirable to identify the Economies and the sectors that face this problem

[xii] Work with incumbent standards organizations: Contribution to ISO, TCFD, TSVCM or equivalent international standard organizations. Climate change related disclosures should be based on commonly accepted international standards. The incumbent standards organizations chosen benefit from being those that financial services participants are familiar with, to ensure support & acceptance by the industry.

[xiii] ISO structure maps the circular economy as such there are numerous ISO standards that correspond to each of the SDGs and that could be leveraged to ensure collaborative multi-sector effort

[xiv] "By 2030, buildings will account for an estimated 12.6 Gt of energy-related emissions. However, some 70% of urban infrastructure that will be needed to accommodate a fast-growing world is yet to be built. By mandating that cities and homes of tomorrow would be fit for low-carbon age – and by updating existing infrastructure – the world can reduce emissions by 5.9 Gt." (excerpt from UNEP report)

· Guidance for how infrastructure projects should be assessed from environmental perspective and executed going forward, may have a significant impact on overall reduction of emissions

· HSBC, along with the IFC, the OECD, and others are leading a public/private collaboration called FAST-Infra, which essentially is an infrastructure labelling system. Over 50 global entities, representing governments at all levels, the financial sector, investors, rating agencies, NGOs and other market players are now participating in the initiative. The idea is that any host government or developer wanting to ensure that the asset they are developing is regarded as sustainable could do so by considering and addressing these standards.

[xv] Fast-Infra - the 'Finance to Accelerate the Sustainable Transition-Infrastructure' initiative —which aims to close the trillion-dollar sustainable infrastructure investment gap, with urgency, by transforming sustainable infrastructure into a mainstream, liquid asset class.
https://www.climatepolicyinitiative.org/fast-infra/
FAST-Infra was conceived in early 2020 by Climate Policy Initiative (CPI), HSBC, the International Finance Corporation (IFC), OECD and the Global Infrastructure Facility under the auspices of President Macron's One Planet Lab. Over 50 global entities, representing governments at all levels, the financial sector, investors, DFIs, insurers, rating agencies and NGOs are now actively participating in developing the FAST-Infra initiative.

[xvi] https://www.iosco.org/news/pdf/IOSCONEWS594.pdf

[xvii] The latest announcement by the EU Commission that the Corporate Sustainability Reporting Directive (CSRD) will require the use of Inline XBRL (iXBRL) to report detailed and consistent structured data is a significant step forward in standardizing access to non-financial data. Enabling companies to digitally tag sustainability information will make it machine readable and more comparable. The Commission is also planning CSRD disclosures will be made available through the developing European Single Access Point (ESAP) essentially enabling asset managers to access non-financial data as a legitimate financial risk to a company's bottom line rather than peripheral information.

[xviii] https://futureofsustainabledata.com/fosda-2021-workstreams/

[xix] Developing a public digital library of ESG/Climate Finance-related content

[xx] These Perspectives Papers represent the IVSC's first steps on a path towards a more systematic approach to the incorporation of ESG into business valuation practice and standards.
https://www.ivsc.org/news/article/perspectives-paper-esg-and-business-valuation

https://www.ivsc.org/news/article/a-framework-to-assess-esg-value-creation

[xxi] Probably a broader lens, including adaptation investments and other environmental goals such as water and waste management should eventually be included

[xxii] ISO is working on several standard initiatives that have had benefits in terms of global adoption and applicability:

- ISO 14 001 is a voluntary standard that specifies requirements for an environmental management system, which an organization can use to enhance its environmental performance. It maps out a framework that a company or organization can follow to set up a robust, credible, and reliable environmental management system, to which it may assert conformance, and demonstrate value for the environment, the organization itself, and interested parties (stakeholders). The core requirements of ISO 14001 are already embedded in the Eco-Management and Audit Scheme (EMAS) Regulation, and can be seen in Annex A.

- ISO 9001 sets out the criteria for a quality management system and is the only standard in the family that can be certified to (although this is not a requirement). By design, it is intended to be used by any organization, large or small, regardless of its field of activity.
- In practice, as ISO standards are written by those most familiar with larger, formally managed organizations, and normally marketed as 'certified' systems. While conformance is voluntary, in general ISO standards are not perceived as appropriate to small business by small business. The cost of third-party certification, which is one of the four recognized conformity assessment options (as stated in ISO 14001) has been a financial and perceptual barrier. There are EMS-light approaches such as EMAS Easy, as well there are several options that are present in the Nordic economies.
- ISO 17442 – Legal Entity Identifier (LEI). The LEI provides a unique identifier for legal entities, which can be leveraged for identifying parties for ESG activities and reporting.

[xxiii] https://www.gfma.org/wp-content/uploads/2021/06/global-principles-for-climate-taxonomy.pdf

[xxiv] This issue is addressed by FSB's "Roadmap for addressing climate-related financial risks". This roadmap includes four pillars:

1. Firm level disclosures
2. Data
3. Vulnerabilities analysis
4. Regulatory and supervisory practices and tools.

FSB published this roadmap with 2 additional papers:
"The Availability of Data with Which to Monitor and Assess Climate-Related Risks to Financial Stability".
"Report on Promoting Climate-Related Disclosures"
All papers are available at: https://www.fsb.org/2021/07/fsb-chair-presents-a-comprehensive-roadmap-for-addressing-climate-related-financial-risks/

[xxv] Such as in UK the recent Committee on Climate Change UK third risk assessment

[xxvi] Recognizing the role of developing effective sustainability governance. ISO sees governance work as a key part of what finance ministers need to have regard to in creating conditions for accelerating the transition to address climate risks. Examples of relevant work are:

a. ISO/TC 309 Governance of Organizations addresses standardization in the field of governance relating to aspects of direction, control and accountability of organizations.

b. ISO 32210 (Framework for Sustainable Finance: principles and guidance) is being developed as a reference standard

ISO 5009 - Official organizational roles (OOR) to identify organizational roles such as CEO, CFO, etc. could be used to identify participants in an executive compensation scheme

[xxvii] ISO has developed a number standards that can help with regards to setting up efficient sustainability-related governance:

- ISO/TC 309 Governance of Organizations addresses standardization in the field of governance relating to aspects of direction, control and accountability of organizations.
- ISO TC207 covers environmental management and has a number of published standards, as well as several highly relevant standards initiatives, which are near to completion, including:
- ISO 14097:2021 - Framework including principles and requirements for assessing and reporting investments and financing activities related to climate change;

- ISO 14030-1 – Environmental performance evaluation - Green debt instruments – Part 1: Process for green bonds and investment funds;
- ISO 14030-2 - Environmental performance evaluation - Green debt instruments – Part 2: Process for green loans;
- ISO 14030-3 - Environmental performance evaluation - Green debt instruments –Part 3: Taxonomy;
- ISO 14030– 4 – Environmental performance evaluation—Green Debt Instruments – Verification program requirements;
- ISO 14100 – Guidance on environmental criteria for projects, assets and activities to support the development of green finance

[xxviii] A good example of this is the Japanese TCFD Consortium

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Additional Reference Material:

Building Block 1.2: Environmental and Industrial Policies

Basic Guidelines on Climate Transition Finance
- https://www.meti.go.jp/press/2021/05/20210507001/20210507001-3.pdf

The ASEAN Capital Markets Forum be conducting a study on the development of a common green, sustainable, and transitional taxonomy for ASEAN
- https://www.theacmf.org/media/news-release/asean-capital-markets-forum-set-key-priorities-for-its-next-five-years-action-plan-

Building Block 1.3: Fiscal and Monetary Incentives

ADB TA - Creating Ecosystems for Green Local Currency Bonds for Infrastructure Development in ASEAN+3 - https://www.adb.org/projects/53300-001/main

TRIS Rating Green Bond Verification Service -
https://www.trisrating.com/pr-news/green-bond-verification-service/

RAM Sustainability and ADB collaborate on sustainable finance capacity building -
https://www.ram.com.my/pressrelease/?prviewid=5667

Building Block 1.4: Mitigation and Adaptation (Large/Listed companies) and Building Block 1.5: Mitigation and Adaptation (SMEs/Not-listed Companies)

Thailand's Investment Governance Code for Institutional Investors (I Code) -
https://www.sec.or.th/cgthailand/en/pages/rulesregulation/icodeii.aspx

Thailand - Sustainable Banking Guidelines Responsible Lending
https://www.tba.or.th/wp-content/uploads/2019/08/Guidelines-ResponsibleLending.pdf

Singapore - Guidelines on Responsible Financing
https://abs.org.sg/industry-guidelines/responsible-financing

G20 GPFI Policy Paper on Climate Smart Financing for Rural MSMEs
https://www.gpfi.org/publications/g20-gpfi-policy-paper-climate-smart-financing-rural-msmes

Building Block 1.6: Sector-Specific and General Financing

Sector-Specific:
https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/climate+business

https://www.ifc.org/wps/wcm/connect/region__ext_content/ifc_external_corporate_site/south+asia/resources/supply+chain+finance+knowledge+guide

Joint Statement of the 7th ASEAN Finance Ministers and Central Bank Governors' Meeting (AFMGM)
https://asean.org/storage/Joint_Statement_of_the_7th_AFMGM.pdf

General-Scope:

Implementation of the ASEAN+3 Multicurrency Bond Issuance Framework –
https://asianbondsonline.adb.org/abmf.php

Building Block 2.1: ESG/Climate Disclosure and Building Block 2.2: Global Reporting and Data Repositories

- 18 December 2020 CDP, the Climate Disclosure Standards Board (CDSB), the Global Reporting Initiative (GRI), the International Integrated Reporting Council (IIRC) and the Sustainability Accounting Standards Board (SASB), co-authored an illustration of how their current frameworks, standards and platforms, along with the elements set out by the Task Force on Climate-related Financial Disclosures (TCFD), can be used together to provide a running start for development of global standards that enable disclosure of how sustainability matters create or erode enterprise value.
- *Reporting on enterprise value Illustrated with a prototype climate-related financial disclosure standard ("Prototype")* The group of five explain in the paper that enterprise value reporting – in other words, disclosure of how sustainability matters create or erode enterprise value – "is not therefore a replacement for sustainability reporting, which serves a broad range of stakeholders, can offer input to public policy design and reveals issues that may emerge as material for economic decision-making over time." They believe, however, that consistent communication of how sustainability matters affect drivers of enterprise value can be a "complementary enabler of change, since it creates a financial incentive for companies and their investors to improve performance on some sustainability matters as much and as quickly as they can".

Building Block 2.3: Financing SME's and not-listed companies

Eco-Management and Audit Scheme (EMAS) Regulation:
Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS), repealing Regulation (EC) No 761/2001 and Commission Decisions 2001/681/EC and 2006/193/EC (ISO)

EMAS Regulation Annex 1:
https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02009R1221-20190109&from=EN

Building Block 2.4: Financing Products Development

NGFS Climate Scenarios for central banks and supervisors
https://www.ngfs.net/sites/default/files/medias/documents/ngfs_climate_scenarios_phase2_june2021.pdf

Building Block 2.6: Taxonomies

https://www.gfma.org/wp-content/uploads/2021/06/global-principles-for-climate-taxonomy.pdf

APPENDIX B

Asia-Pacific Financial Inclusion Forum

Emerging Priorities in the COVID-19 Era

Proposed Actions for Policymakers and Regulators

ASIA-PACIFIC FINANCIAL INCLUSION FORUM

Emerging Priorities in the COVID-19 Era

Proposed Actions for Policymakers and Regulators

INTRODUCTION

The Asia-Pacific Financial Inclusion Forum (APFIF) is a policy initiative established in 2010 under the APEC Finance Ministers' Process, housed within the APEC Business Advisory Council (ABAC). The primary purpose of the Forum is to identify concrete actions policymakers and regulators can take to expand the reach of financial services to the underserved. The annual APFIF Policy Dialogue provides a platform for policymakers, regulators, development experts and industry leaders to take an active role in validating and refining the proposed actions developed through the APFIF initiative and achieve consensus for effective pathways for progress.

A distinctive feature of the Forum is its broad view of financial inclusion as an enabler of inclusive growth and development in all its manifestations – financial, economic and social - and its strong focus on those at the base of the economy and the potential for financial inclusion to have a positive impact on the poor.

In 2021, APFIF adopted the theme "*Emerging Priorities in the COVID-19 Era*" and progressed the development of proposed actions for financial inclusion within two core topics:

- Facilitating recovery and resilience through financial inclusion
- Emerging financial inclusion challenges and opportunities in a world disrupted by COVID-19

These topics were discussed at the 11th annual APFIF policy dialogue which was held on 25 May 2021 and attended by senior government officials representing 18 economies as well as nearly 30 policy and industry experts. This report provides a summary of the proposed actions developed for APEC's policymakers and regulators through this dialogue. A more detailed report will be published later in the year and shared with APEC stakeholders.

APFIF is led by the Asian Development Bank (ADB) with support from the Asian Development Bank Institute (ADBI) and the Foundation for Development Cooperation (FDC).

FACILITATING RECOVERY AND RESILIENCE THROUGH FINANCIAL INCLUSION

The economic impact of the COVID-19 pandemic has been significant, especially for the most vulnerable and disadvantaged groups, including informal workers and women. The crisis has also had a significant impact on global fintech markets, with lockdowns and other movement restrictions creating unprecedented demand for digital financial products and services, leading to rapid digitization of payments and accelerated risks. With the road to recovery likely to be long and challenging, innovative approaches to financial inclusion will be needed to successfully rebuild livelihoods and increase resilience at the base of the economy.

Proposed Action 1: Support the capacity of microfinance providers to adopt digital technology to drive financial inclusion and bring the benefits of the digital economy to their clients.

Digital transformation has the potential to increase income and wealth inequality by widening the digital divide between those who have access to, and are capable of using, digital technology and those without. Traditionally, microfinance providers have played an important role in providing financial services to those at the base of the economy, including informal sector workers and micro, small and medium-sized enterprises (MSMEs). Leveraging the reach and levels of trust they often enjoy with their clients, there is an opportunity for microfinance providers to adopt digital technology in ways that can improve their operations as well as enhancing the services offered to their clients, particularly during the COVID-19 pandemic. Specific actions governments might take to facilitate this include:

- ***Promote and ensure equitable access to digital infrastructure***. Steps need to be taken to close the digital divide for all participants in the ecosystem and expand investment in digital infrastructure. For example, data connectivity remains a significant challenge across the region, especially in rural areas where many microfinance providers operate. Furthermore, use of domestic payment systems is often limited among non-bank financial institutions, including many microfinance providers. In this respect, interoperability and reach are key. Enabling access with appropriate risk mitigation measures can provide a more competitive environment, facilitate interoperability and enable greater efficiencies.
- ***Develop and promote a fully functioning digital identity system.*** Digital financial services are strongly anchored to the need for digital identity. Lack of formally recognized identification limits participation in the digital economy. If designed and implemented properly, digital identification (both for individuals and corporates) can facilitate unlocking of economic value, close the financial inclusion gap, minimize risks such as fraud and over indebtedness. It can further help microfinance providers and other intermediaries carry out customer due diligence requirements efficiently, reducing the cost of customer acquisition, which not only supports inclusion but also innovation and competition.
- ***Develop enabling policy and enhance regulation for new technologies in close coordination with other government agencies that also support innovation and technology*.** Policies and regulations on data privacy and protection, data sovereignty, digital identity, harmonized wallet and prepaid SIM registration or cybersecurity all enable digital finance technologies but do not necessarily sit under the remit of the financial regulator.

Proposed Action 2: Prioritize investments in open digital ecosystems that accelerates responsible digitization of payments leading to inclusive recovery, resilience, and financial inclusion.

Financial inclusion priorities should focus on developing solutions for providing immediate relief (i.e. digital social payments) which can create choices and ease of access for the poor, creating opportunity (i.e. income generation) to support growth and building resilience for future shocks. To develop a secure and competitive digital financial ecosystem, governments can consider a range of key factors including data privacy, cyber security, digital identification, fair competition, physical infrastructure, connectivity, interoperability, and financial and digital literacy. Due to the sheer volume of cash transfers that pass through the growing digital payments infrastructure, getting it right for everyone is of crucial importance for governments. Secondly, emerging areas of data privacy, digital governance, consent frameworks are nascent and complex but essential for building trust and adoption leading to greater financial inclusion. Specific actions governments might take to achieve this include:

- ***Support the development of responsible digital ecosystems***. Through investments in platform design, architecture and technical support governments and their regulatory authorities can play a significant role in framing the development of the digital ecosystems of their economy. Due to the ongoing impact of COVID-19, particular importance should be placed on expediting regulatory measures which will reduce systemic exclusion of the most vulnerable from access to and usage of a diverse range of financial services.
- ***Facilitate the creation and implementation of good governance***. Governments should take a proactive regulatory approach to address both new risks, as well as the amplification of existing risks (i.e. potential for increased occurrences of fraud incidents), arising from increased digital financial transfers adoption. This can include establishing, and providing adequate supervision for, appropriate technology rules and processes to mitigate potential risks (i.e. legislation that

encapsulates consumer protection frameworks such as cybersecurity and data protection laws).

- ***Support the growth of a vibrant technology community***. This should include open-source technology start-ups as well as civil-society stakeholders which play an important role as stewards of user's experiences.

Proposed Action 3: Support innovation as part of COVID-19 recovery strategies

COVID-19 has highlighted the key role that digital finance can play in building resilience in a crisis. However, in many ways the use of digital technology to support resiliency among the poor has been less successful in economies lacking key enablers such as robust digital identity schemes, widespread account access and interoperable payment systems. For digital technology to have a meaningful impact on the region's most vulnerable populations, greater innovation is needed to develop new approaches and business models. Specific actions governments can take to establish a suitable foundation for business development and innovation include:

- ***Build the infrastructure of digital finance.*** This should be based upon ensuring digital access (i.e. mobile or internet) to as much of the population as possible. From this foundation, governments should focus on achieving the needed combination of sovereign digital identification, simplified account opening and systems to be able to use networked Golden Source data (i.e. digitization of definitive or official data sources) enabled with open access and interoperable payments systems. The combination of these elements is essential and forms an ecosystem that provides for other important developments including digitization of government payments or services (which has been crucial during the COVID-19 pandemic).
- ***Design appropriate regulatory approaches.*** These approaches should be risk-based, tiered and proportional to ensure that as risk increases, so too does relevant regulation and supervision. The use of technology can also provide important means to increase regulation and supervision efficiency. Regulatory technologies, or 'Regtech', can facilitate meeting monitoring, reporting, and compliance requirements effectively and efficiently, while 'Suptech' relates to how supervisors leverage technological advancements, e.g. through digitization of data or the and the automation of reporting and data collection by supervisors.
- ***Provide support for the wider data ecosystem***. Core to this is a framework around how data is collected and used. It is becoming of greater importance to governments as digital transformation accelerates is how to build frameworks that will enable, in the most effective way, use of data across society to support development while also minimizing associated risks. To address this, governments should provide direct support to needed research and development including establishing innovation hubs and regulatory sandboxes.

EMERGING FINANCIAL INCLUSION CHALLENGES AND OPPORTUNITIES IN A WORLD DISRUPTED BY COVID-19

As technology developments continue to accelerate in response to the COVID-19 pandemic, governments need to consider how these developments are now shaping a post-COVID-19 world. The expansion of digital services during the pandemic will put increased pressure on policymakers and regulators to ensure that these developments lead to greater inclusion and prosperity for those at the base of the economy, including the development of safe and reliable fintech markets and other emerging opportunities to accelerate progress.

Proposed Action 4: Reassess financial inclusion strategies to consider the growing use of digital financial services.

The fast-moving pace of technology and fintech developments, including new innovative digital products and services being introduced into the market, continues to accelerate because of the

COVID-19 pandemic. While studies have shown that higher levels of financial inclusion positively impact aspects such as poverty, income inequality, women's empowerment or entrepreneurship, the acceleration of technology in financial markets are rapidly changing the financial inclusion landscape. To ensure that financial inclusion strategies have the greatest impact on socioeconomic outcomes, governments need to reassess their strategies and ensure that they continue to align with this changing environment shaped by an increasingly digital world. Specific examples of actions governments can take to achieve this include:

- ***Reassess financial inclusion strategies within the context of a digital transformation roadmap***. As the growth and development of digital financial services continues to expand, alignment between financial inclusion and digital transformation strategies will become more important. Such alignment will help ensure that concrete actions can be implemented in a consistent manner and promote greater collaboration among a wider set of stakeholders to achieve scale.
- ***Consider new dimensions of financial inclusion.*** Financial inclusion is a complex phenomenon linked to multiple underlying factors and evolving conditions. Apart from traditional supply (access) and demand (usage) dimensions, fintech infrastructure and financial development (i.e. ease of getting credit, bank concentration, financial system deposits to GDP, and depth of credit information) should also be considered as they also contribute to financial inclusion.
- ***Recognize that the impact of financial inclusion varies depending on the economy's state of development***. Economy income levels are suggestive of the level of income and non-income development of individual economies. The varying significance and impacts of financial inclusion and its multiple dimensions across income groups suggest such economy characteristics need to be considered in developing effective policies to promote financial inclusion as part of economy-wide development strategies.
- ***Prioritize financial inclusion policies that will have a greater effect on socioeconomic outcomes***. The impact of financial inclusion and its dimensions (i.e. access, usage, financial development and fintech infrastructure) is not universal across all economies. Some aspects of financial inclusion may be more important than others in achieving positive socioeconomic outcomes depending on economy specific situations proxied by different income levels. When assessing these priorities, governments should ensure that adequate attention is paid to demand-side factors. For example, digital finance literacy programs targeting all sectors can play an important role in improving trust and confidence in the digital finance ecosystem and drive greater usage and impact.

Proposed Action 5: Take steps to promote greater stakeholder cooperation to progress digital financial inclusion at the base of the economy.

While the fintech sector continues to expand due to the COVID-19 pandemic, most financial institutions are still unable to serve their customers digitally; particularly at the lower ends of the market where many people remain financially excluded. Furthermore, very few fintechs or traditional financial institutions are focused on providing digital services to the lower ends of the market despite significant potential for business growth opportunities due to persistent challenges such as high levels of illiteracy, reliance on cash or limited access to digital infrastructure. As the usability of technology continuously improves, governments can play a key role in supporting greater cooperation between fintechs and financial institutions to enable more people at the base of the economy to receive, and benefit from, digital services. Some specific actions governments may consider to help facilitate this include:

- ***Re-imagine regulatory technology risk management frameworks***. Many of the frameworks currently in use are based on older technology which was more complex and difficult to integrate than what is used today. Appropriate processes should be adopted, promoting de-risking in the digitization process more efficiently by bringing together multiple fintechs to support rapid prototyping and identifying those that meet the needs most effectively.

- ***Fast-track regulatory licensing process for microfinance providers going digital***. An important aspect in achieving this would be for regulators to recognize existing frameworks that microfinance providers might leverage rather than treating each digital journey as a stand-alone, unique case. Furthermore, governments can provide standard, open Application Program Interfaces (APIs) to streamline regulatory reporting requirements.
- ***Establish legislation with clear timelines for fully open banking API's for in-country incumbent players***. For example, national or international payment gateways, tier-1 banks, credit bureaus, etc., are not often able to acquire API definitions easily. By publishing all APIs as open APIs it will support greater integration and connectivity within the financial ecosystem. This will help level the playing field for smaller microfinance providers and local /global fintechs and speed up digitization. Since the enactment of legislation is often a long process for most economies, governments might consider the adoption of an economy-wide framework in the short-term.

Proposed Action 6: Explore the potential of innovative fintech financing mechanisms for digital infrastructure development needs.

Addressing the financing gaps for digital infrastructure development is a significant challenge for many governments, especially in developing economies with less developed capital markets. However, addressing these gaps and enabling the development of safe, reliable, and affordable digital infrastructure is critical to achieving digital financial inclusion. As technology continues to develop at a rapid pace, emerging fintech models such as asset tokenization, blockchain-based project bonds or crowdfunding provide potential innovative solutions for raising capital. Specific actions governments could take to explore and enable these innovations further include:

- ***Identify and invest in key digital systems***. To harness the potential of innovative fintech solutions to help generate investment capital, certain digital systems need to be in place such as crowdfunding platforms, mobile banking or tokenization of debt/equity instruments. Governments should consider priorities for enabling fintech to develop viable solutions for mobilizing domestic savings and scaling up sustainable investment opportunities.
- ***Nurture relevant talent to enhance internal capabilities***. This might include placement of technology experts within central banks or other government ministries as well as establishing a dedicated core technology innovation group or an expert network to provide several functions such as identifying potential innovative models and use cases, facilitating public-private collaboration or coordination with international partners.
- ***Explore different innovative fintech solutions to mobilize domestic savings.*** To fill the digital infrastructure financing gap, financial authorities should take a proactive approach to identifying what fintech solutions may be most effective in facilitating domestic resource mobilization and contribute to financial inclusion. Furthermore, they also need to create adequate regulatory frameworks that allow for the development of promising fintech solutions while safeguarding financial stability and consumer protection. The most appropriate solutions will vary between economies dependent on local circumstances. Greater international cooperation to share lessons and best practice would support efforts.

APPENDIX C

Asia-Pacific Financial Forum

Digital Trade Finance Lab

Combating Trade-Based Money Laundering

Whitepaper

Asia-Pacific Economic Cooperation

APEC Business Advisory Council

Asia-Pacific Financial Forum Digital Trade Finance Lab

Combating Trade-Based Money Laundering Whitepaper

Recommendations and Key Asks to APEC Finance Ministers

Publication Date: June 2021

Working Group Convenors: Henry Roxas and Mathias Berthelemot from R3

Combating Trade-Based Money Laundering (TBML)

Foreword

The Asia Pacific Financial Forum (APFF) is uniquely positioned to bring together both the private and public sector, educate the broader industry, and provide a platform for the industry to identify more efficient and effective means of combating TBML.

The genesis and context of this Whitepaper is an initiative under the APFF Digital Trade Finance Lab ("APFF Lab"), which created a TBML Working Group to undertake the specific ask from APEC Finance Ministers, as stated in the annex to their 2020 Joint Ministerial Statement that "APEC member economies look forward to an update on the project regarding the use of technology to combat Trade-Based Money Laundering."

The APFF Lab intends to convene discussions to review the Whitepaper with relevant stakeholders and will welcome the participation of APEC Finance Ministry and Central Bank Officials in these discussions.

Special acknowledgements go to R3 - the Working Group convenor – as well as the institutions and their representatives that participated in the Working Group that contributed to the Whitepaper including:

- Henry Roxas and Mathias Berthelemot from R3
- Steven Nichols and Stacey Facter from BAFT
- Kevin Carr from Finiden
- Tat Yeen Yap from MonetaGo (Co-Sherpa, APFF Digital Trade Finance Lab)
- Maarten Stassen and Clark Jennings from Crowell & Moring
- Radish Singh from Deloitte
- Mark Borton from National Australia Bank
- Matthew Field from NICE Actimize
- Marc Smith from Conpend
- Colin Camp from Pelican
- Vyas Abhishek from ANZ Bank
- Sriram Muthukrishnan from DBS Bank
- Minli Ng and Samuel Mathew from Standard Chartered Bank
- Alexander Malaket from Opus Advisory
- Edward Young from HSBC
- Akika Ichiki from Mizuho Bank
- Julius Caesar Parreñas from Daiwa Institute of Research (APFF Coordinator)
- David Bischof from the ICC Banking Commission (Co-Sherpa, APFF Digital Trade Finance Lab)
- Steven Beck and Catherine Estrada from the Asian Development Bank
- Alexey Kravchenko from the United Nations ESCAP
- Joel Gibbons from Canada Border Services Agency
- Matthew Shannon from Finance Canada's Financial Sector Policy Branch
- Charlotte Kan, Independent Editor

Brief

- Our working group is composed of private sector banks, trade experts and technology providers located and working in APEC member economies. Our discussions focused on what would be the most effective ways to combat TBML.

- Our paper concludes, reflecting the broad consensus within the working group, that emerging technologies such as Blockchain, Artificial Intelligence and Secure Multi-Party Computation can alleviate many of the compliance issues with regard to private-private information sharing needed to facilitate an industry-wide and cross-industry response.

- We also highlight some existing use cases for Blockchain and AI for the automation of TBML monitoring and currently available privacy-enhancing technologies that can alter the typical trade-off between the security and availability of information, and thus between privacy and preventing illicit finance. These technologies can provide the automation and information sharing that industry participants are seeking while also accommodating the understandable privacy concerns of APEC member governments.

- Our group asks that Finance Ministers and regulators provide the necessary intergovernmental coordination, regulatory clarity, and space to adequately test, develop, and implement these ideas using these Blockchain, AI and privacy-enhancing technologies such as Secure Multi-Party Computation.

Executive Summary

Trade-Based Money Laundering (TBML) is defined by the Financial Action Task Force (FATF) as "the process of disguising the proceeds of crime and moving value through the use of trade transactions in an attempt to legitimize their illicit origins".[1] The complex web of transactions involved in global trade makes it easy for money launderers to obscure the origin of their funds. TBML is a significant issue that is affecting every region of the planet. As a key player in global trade, APEC is vulnerable to criminals that exploit the intricacies and sheer volumes of trade flows to launder their illicit proceeds through the region's financial systems.

Unfortunately, regulators and financial institutions (FIs) face many challenges in combating TBML. One of the unique challenges faced is the lack of and necessity for coordinated efforts between private and public players to effectively capture instances of TBML.

In addition to the need for public-private sector collaboration, developments in private-private information sharing, data analytics, and emerging technology can go a long way towards enabling greater private-public collaboration in the fight against TBML. Technology such as Secure Multi-Party Computation, which protects data privacy can enable cross-border, private-private trade data information sharing while remaining compliant with applicable regulations. The APFF can play a role in improving the effectiveness of implementing TBML controls.

The working group considered the various open literature, industry guidance on TBML including but not limited to the Financial Action Task Force (FATF) and FATF-style Regional Body (FSRB) documents focusing on TBML, such as the 2006 landmark study, the 2008 best practices paper, and the 2012 report by the Asia Pacific Group on Money Laundering (APG), including the BAFT and ICC publications.

This Whitepaper discusses general TBML challenges and focuses on one specific source of TBML risk – fraudulent invoices - and explores how information sharing as a key success factor in combating TBML is constrained by legal challenges and policy considerations. It then discusses the specific role of data and emerging technology in addressing the challenges. Finally, it makes a series of recommendations – "Key Asks" – for APEC Finance Ministers to consider adopting.

> It is our view that TBML is a significant problem that only collaboration and innovative approaches can solve.

[1] FATF Trade-Based Money Laundering Trends and Developments http://www.fatf-gafi.org/media/fatf/content/Trade-Based-Money-Laundering-Trends-and-Developments.pdf

I. TBML Challenges

Overview of General TBML Challenges

Financial crime is a huge and widespread problem. The amount of money laundered globally in a single year represents about 2 - 5% of global GDP, or circa 2 trillion USD, estimates the United Nations Office on Drugs and Crime (UNODC).[2] To combat it, banks and other financial institutions spend billions of dollars on compliance every year - or risk paying billions in heavy fines and penalties.[3] However, the results of these efforts on TBML are limited, with only a fraction of global illicit financial flows interdicted (< 1%).[4] APEC is a key player in global trade. This makes the region vulnerable to criminals that use the complexities and sheer volumes of trade flows to launder their illicit funds through the region's financial systems. Over/under invoicing, or invoice tampering, is a major TBML scheme. ESCAP estimates that the Asia-Pacific region loses at least 3.8 per cent of tax revenues to such invoice fraud.[5]

Trade Finance, a Key Source of Money Laundering

With contribution of 38% of the world's population, 60% of the world's GDP and 47% of the planet's trade of goods and services, the APEC region is an engine of global trade.[6] Unfortunately, the financing mechanisms that support global trade are attractive to money launderers and financial crime. For this reason, trade finance is viewed by regulators and standard setting agencies as risky for money laundering and other financial crimes such as terrorist financing and breach of sanctions.[7] "Financial institutions have been facing much difficulty in monitoring and implementing controls in their trade finance business to combat trade-based money laundering. The problem has been further exacerbated by lack of clarity in the compliance requirements and regulatory expectations in many jurisdictions," Deloitte said in a recent report on Trade-Based Money Laundering Compliance.[5]

The Documentary and Open Account Trade Gaps

Currently, around 10% of trade is documentary where banks intermediate the flow of transactional documents between buyers and sellers.[8] Much of the rest is on 'open account' basis, where buyers and sellers do not rely on banks for document flows, and a bank's role is often limited to the processing of payments. Banks therefore have limited visibility of the underlying trade transaction to identify suspicious activity. There are also prohibitions against, or no common standards established today, to mandate or manage exchanging trade data between banks and with other organizations. What the limited visibility and barriers to

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[2] United Nations Office on Drugs and Crime (UNODC), Money Laundering, https://www.unodc.org/unodc/en/money-laundering/overview.html
[3] KPMG, Combating financial crime, 3 focus areas for banks to achieve more effective and efficient customer due diligence https://home.kpmg/xx/en/home/insights/2019/03/combating-financial-crime-fs.html
[4] BAFT, Combating Trade Based Money Laundering – Rethinking the Approach https://baft.org/docs/default-source/marketing-documents/baft17_tmbl_paper.pdf
[5] United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). Financing for Development in Asia and the Pacific: Highlights in the Context of the Addis Ababa Action Agenda – 2019 Edition (p 10). Available at https://www.unescap.org/resources/financing-development-asia-and-pacific-highlights-context-addis-ababa-action-agenda-2019
[6] Asian-Pacific Economic Cooperation, APEC in Charts 2019 https://www.apec.org/Publications/2019/12/APEC-in-Charts-2019
[7] Deloitte, Balancing the Act of Trade Based Money Laundering Compliance, by Radish Singh https://www2.deloitte.com/kh/en/pages/financial-services/articles/tbml-compliance.html
[8] International Chamber of Commerce ("ICC") https://safety4sea.com/wp-content/uploads/2020/07/ICC-Global-survey-on-trade-finance-2020_07.pdf

the exchange of data presents is a structural issue in the combat against TBML. To overcome such structural challenges, one key is for regulators to set some compliance expectations on data sharing and TBML controls.

Combating TBML: A Responsibility of the Whole Ecosystem

Today, it might appear that regulators expect banks to play a significant and almost sole role in the identification of suspicious activity. However, given that in open account trade finance transactions, banks have limited visibility and/or access to documents accompanying the transactions, banks will need to rely on more than just transactional information if they are to identify suspicious activity. For the identification system to become increasingly more efficient, additional stakeholders are needed to share the burden; they are such as:

- Shippers and shipping companies
- Shipment Inspectors
- Brokers
- Logistics providers
- Government e.g., Customs
- Auditors
- Insurers

Screening for Invoice Fraud to combat TBML

The Wolfsberg Group, an alliance of global banks working together for the development of frameworks and guidance for the management of financial crime risks, refers to methods for moving illegal funds.[9] One such method commonly used is misrepresenting the price, quality, or quantity of goods by over- or under-invoicing, multiple invoicing, short- or over- shipping, obfuscation (shipping something other than what is invoiced) or phantom shipments (shipping nothing at all).

Red flags are already defined by various parties and were aggregated by BAFT (Bankers Association for Finance and Trade) in its *Guidance for Identifying Potentially Suspicious Activity* for ease of understanding.[10] The approach to assessing these red flags requires greater clarity in terms of standards and acceptable practices. Given the lack of clear standards, FIs have instituted different practices to tackle the risk; these have proven very costly when measured against the level of effectiveness.

To address these red flags, it is possible for price and classification of goods to be vetted via the use of secure data sharing and screening technologies so that the pricing may be more accurately vetted, or at least tested for reasonableness. This will significantly improve efficacy of risk management. Including third-party data classification systems such as the Harmonized System (HS) or equivalent to better identify goods pricing could help train the Artificial Intelligence (AI) models under development by many financial institutions.

Technologies such as text-based mining, can be used to help predict, classify, and standardize invoice data, facilitating processing of data from different sources.

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[9] ICC, Financial Crime Compliance Checks on the Price of Goods in Trade Transactions – Are Price Checking Controls Plausible?
https://iccwbo.org/publication/financial-crime-compliance-checks-price-of-goods-trade-transactions-price-checking-controls-plausible/
[10] BAFT, Guidance for Identifying Potentially Suspicious Activity
http://www.baft.org/Handlers/AptifyAttachmentHandler.ashx?AttachmentID=7r1OKJQloZI%3D

A Need for Joint Standard and Common Policy

Currently, a lack of adequate resources to monitor and interpret trade data properly is a problem further exacerbated by the cross-border sharing of data regulations in certain APEC economies. The ability to share trade-related data, such as goods pricing, may require changes in laws and regulations to address security and confidentiality challenges. Laws around the permissibility of secure cross border sharing of private-private data (among various private sector stakeholder e.g., banks, other financial institutions, shipping companies etc.) is instrumental in the identification of suspected TBML activities.

II. Information Sharing

Sharing as a Key Success Factor in Combating TBML

Today, most trade information sits in silos – they are confined within each organization. This is well known, hindering any industry-wide and cross-industry coordinated effort in detecting TBML. Without a holistic view of information across the end-to-end value chain, isolated controls are built by each participant, which stops them from being fully effective. End-to-end information sharing, particularly of key invoice data such as pricing, originators, and beneficiaries, will help to tackle the problems present on both documentary and open account trade.

Two main challenges in achieving an unrestricted coordinated information flow have been identified:

- The availability of standardized information: Due to the lack of standardization across jurisdictions and amongst the organizations involved, a lot of information is either available in an unstructured form (paper-based) or where available, classified differently within different organizations.
- Privacy and other legal hurdles in sharing information: Due to the sensitive nature of some of the data, there are legal constraints and challenges as well policy considerations to contend with.

The following sections offer potential solutions to address these two challenges and provide some policy considerations to help facilitate the solution:

The need for Standardization of Data

Currently in global trade, while some information standards exist, several gaps remain that would require data exchange across jurisdictions and entities. Some of the key areas where information sharing is essential to prevent TBML include:

a) Invoice / Pricing information (for under / over invoicing)
b) Shipment and financing information (for duplicate financing)
c) Know Your Customer (KYC) information
d) Information on incidents / Suspicious Activity Reports (SARs) / Risk outcomes

This paper focuses on (a) invoice and pricing information sharing.

Price manipulation (under / over invoicing) is a very prevalent typology for money launderers to leverage (noting that collusion is required for this to be effective), and the challenges in accurate benchmarking of pricing information are well acknowledged in the industry. Aside from benchmarking, there are other challenges with the role of invoices in trade transactions:

- The collection and extraction of invoice information
- Non-standard and inconsistently available components of information like goods description, origin information etc. across all trade documents

The following data fields are considered critical for providing trade information to identify potential suspicious activities:

- Buyer / Seller names, addresses, and identifiers e.g., Legal Entity Identifier (LEIs)
- Unit pricing
- Quantity and/or volume
- Grade, specification of goods
- HS codes
- Invoice / Contract numbers
- Currency codes and amount
- Payment terms
- Origin, purchaser, and jurisdiction of goods
- Ship from and ship to ports
- Separated c.i.f. component

Legal Constraints and Challenges of Information Sharing

The other barriers to effective information exchange to be removed include enabling and controlling access to quality information. Bank secrecy and privacy laws in many economies have been put into place to safeguard sensitive information. Information sharing across entities or jurisdictions has been prohibited given the difficulty in establishing controls on who and how information is used.

Newly developing viable technologies could potentially rebalance these interests by offering comparable (or greater) security together with more access to data. Some solutions include the use of blockchain, Homomorphic Encryption (HE), Secure Multi-Party Computation (SMPC), Secure Enclaves, Zero-Knowledge Proofs (ZKP), and Federated Learning all of which provide differing degrees of security to address data access and controls.[11] Parties providing information can remain in control of the data, have it stored on-premise and access it in real time.

Flagging suspicious activity often involves transactions between banks that are confidential. Solutions like Secure Multi-Party Computation (SMPC) protocols enable these transactions to be shared in an encrypted form, to allow them to remain hidden to the other parties. It offers Remote Attestation (RA), a type of digital key, so parties involved may each audit how the data is being used and ensure that unauthorized entities cannot access it. With a Secure Enclave (solutions built into the CPU, thus providing hardware security) and blockchain, all parties providing information remain in control of the data at all times, as the data remains stored on-premise.

Policy Considerations to Enable Information Sharing

For the standardization of invoice information, governments and regulators could develop minimum standardized information for trade invoices that businesses would have to comply

[11] See Annex A below

with. This would enable information to be shared using otherwise inaccessible data to feed to algorithms that can flag fraudulent behavior.

For this system to work, APEC must have jurisdictions that facilitate smooth public-private and private-private sharing of information. Customs, for instance, hold extremely valuable information that could be pulled into a data bank accessible by financial institutions for price validation, creating an inter-bank information sharing ecosystem.

Potential sharing mechanisms:

- Public / private partnership – Governments could be mandating and supporting information sharing by providing a common platform and rulebook for such information sharing. Customs and enforcement agencies would have a key role to play, due to the amount of valuable information and intelligence they hold.
- Private / private partnership – Similar to the trade finance registry in Singapore, FIs could collectively participate and define the information sharing standards.
- Public / public partnerships – Inter-jurisdiction sharing of information to allow different regions and/or governments to collaborate.
- Any technology used should adhere to existing privacy and security policies for sensible information sharing.

III. Technology

Technology to Combat TBML

Technology has been key over the past years to enhance the fight against TBML. FIs have adopted Optical Character Recognition (OCR) and Natural Language Processing (NLP) technologies to extract data from trade documents, and transaction screening systems - often based on AI algorithms - can flag specific patterns in structured data. However, it is still not possible to create a holistic view of all the various interactions and activities related to a trade finance transaction since each party only has access to a subset of the needed information, significantly hindering attempts to decrease fraud. Emerging technology could fill this need and potentially change this paradigm entirely.

The Importance of 'Good' Data

When it comes to creating effective processes for combating TBML, accuracy and completeness of data is just as important - if not more - than quantity. This is essential to build systems that can identify the critical data required to identify red flags, automate AML rules, and generate alerts to flag other unusual transactions. However, data protection rules and the limitations of cross jurisdiction exchange of information prevent banks and all trade players from accessing what could be vital information. As a result, FIs end up with a lot of unstructured and semi-structured data. Developing an accurate and shared data foundation is essential so it can be shared safely across all the parties in the ecosystem.

The Key Role of Emerging Technology

This is where emerging technology can intervene. It can bridge the gaps between governments' expectations and what is practical today by automating TBML monitoring and providing much greater visibility through secure information sharing. The emerging technologies highlighted below can enhance both the availability, confidentiality, and integrity of trade data.

- A number of banks in Singapore recently unveiled a blockchain proof of concept for a Trade Finance Registry (TFR) to prevent trade fraud. The TFR works as a platform to ease the flow of information between banks and prevent duplicate financing.

- In India, the Reserve Bank of India-supported Trade Receivables e-Discounting System solves for the problem of duplicate invoice financing by deployment of a blockchain platform that keeps a record of cryptographic hashes (instead of actual data) of financed invoices, against which hashes of invoices submitted for new financing requests are checked for matches.

- Many banks around the world are using a combination of OCR and NLP technologies to extract relevant information from unformatted documents and messages, analyze and format it ready for compliance screening and checking. Machine Learning is then used to build models based on historical information and domain data to alert on any anomalies in the trade.

- Several Mexican Banks have also taken up initiatives to exchange KYC and anti-fraud information secured by secure enclaves and zero knowledge proofs.

Unit Price Analysis to Combat TBML

Another example of the importance of 'good' data is unit price verification, which is complex. FIs are often unable to assess the validity of stated unit pricing due to the lack of relevant information (terms of specific business relationship, discounting for bulk purchase, quality of goods, non-publicly traded products etc.)

Thanks to new technologies like blockchain, AI with Privacy Enhancing Techniques (PETs) and OCR (see below), the flagging of anomalies in trade transactions can be automated – and significantly enhanced.[12]

Fig. 1: Utilizing New Technologies to Implement TBML and other Financial Crime Programs

	Pre-Transaction		Transaction Processing			Post-transaction	
New Technologies	**Product selection**	**Data entry**	**Workflow management**	**Document checks**	**Compliance checks**	**Problem resolution**	**Client management**
Optical Character Recognition (OCR)		**Text recognition** from trade docs to minimize data entry					
Artificial Intelligence (AI)	**Enhanced KYC** (e.g. web scrape)	**Use of NLP** to analyse, perform contextual analysis, format & **normalise unformatted data**		**Cross reference trade docs** to improve accuracy of data field extraction	**Use of ML to build models** based on standard behaviour & patterns to **identify potential red flags**		
Internet of Things (IoT)			IoT data source to **track physical movement of goods as input to fine-tune AML transaction monitoring systems** (e.g. suspicious shipment routes, goods sourced from/to sanctioned country)				
Distributed Ledger Technology (DLT)		Replace doc check, data entry, validation w/ **single digital record**	**Exchange of trade documents** between counterparties, **validate authenticity,** completeness & conformity of trade docs to T&Cs. **Auto release of payment** based on trade data.		Create **smart contracts** to **raise red flags** based. Mutualize the cost of checking for dual use goods within a network.	**Smart contract** to auto-create and submit **Suspicious Transaction Reports (STRs)**	
Secure Enclave			Use of secure hardware and software for enhanced data protection controls. **Pool private trade documents** to perform calculations on **unit price analysis** while **keeping data private.** Aggregating trade data **to fine-tune transaction monitoring systems, reduce false-positive red flags and manual checks**				
Secure Multiparty Computation (SMPC)				Allows two or more parties to analyze combined data without sharing underlying data with one another. Does not require secure hardware as in Secure Enclave. For example, **can analyze trade transaction datapoints across multiple institutions to evaluate abnormalities in price and quantity,** without seeing the underlying, encrypted data.			

Adapted from Bain & Company, R3 Analysis

[12] See Annex A below

IV. Key Asks

Our Recommended Solution

To step up the fight against TBML, we recommend a focused effort to facilitate the sharing of information among FIs using new technologies to maintain the appropriate balance between data availability and security. In facilitating information sharing, we believe efforts should emphasize helping industry navigate the issues of data standardization and privacy regulations both within and across economies. Technologies should maintain or improve data security while increasing data visibility so that businesses, and FIs in particular, can comply with relevant regulations, while minimizing costs and administrative and compliance burdens. We also advocate the use of existing instruments in trade players' toolboxes to help them comply with existing regulation.

Our proposed solution outlined in Figure 2 below aims to assist with risk rating or red flagging potentially suspicious transactions, by setting up a trade pricing information sharing utility.

In order to do this, critical and standardized data for trade transactions is needed, such as:

- Price
- Volume
- Origin/destination
- Seasonality
- HS code
- Quality/grade
- Model
- Brand
- And more…

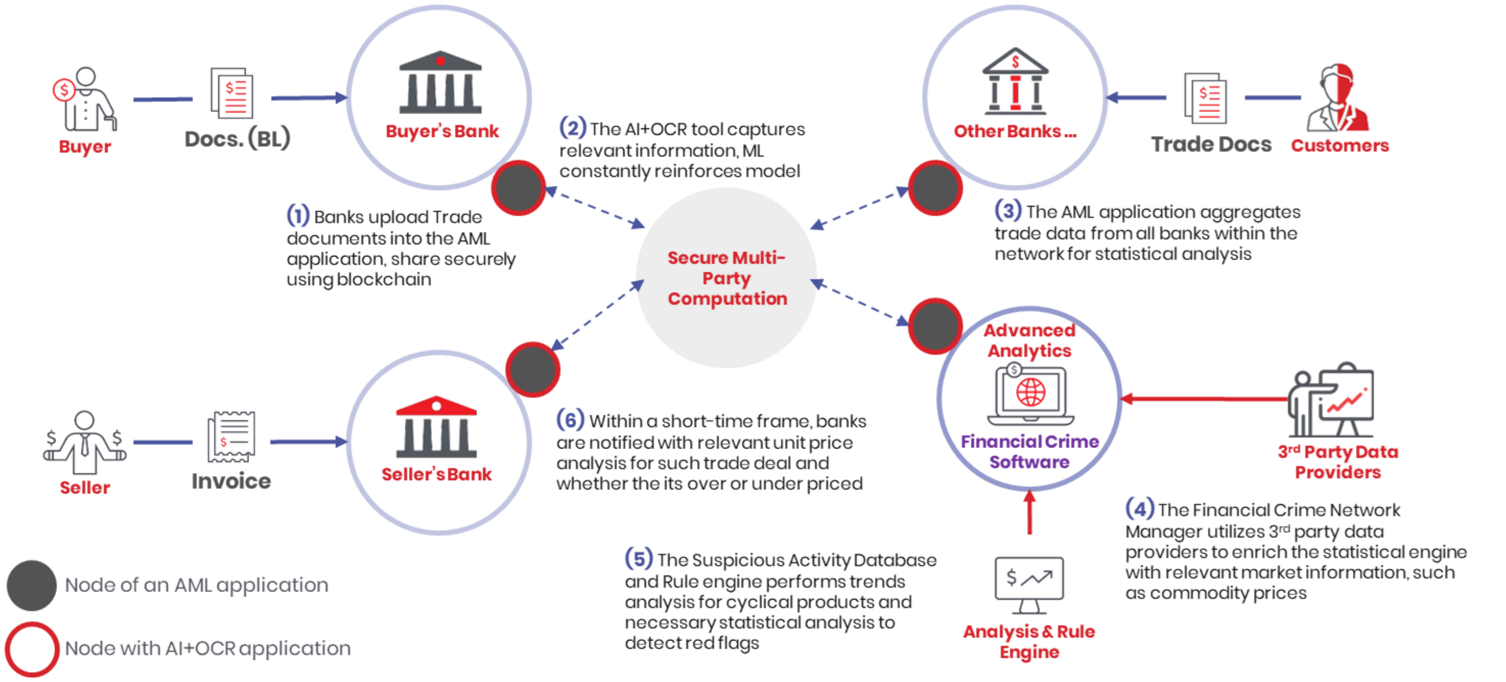
Solution overview

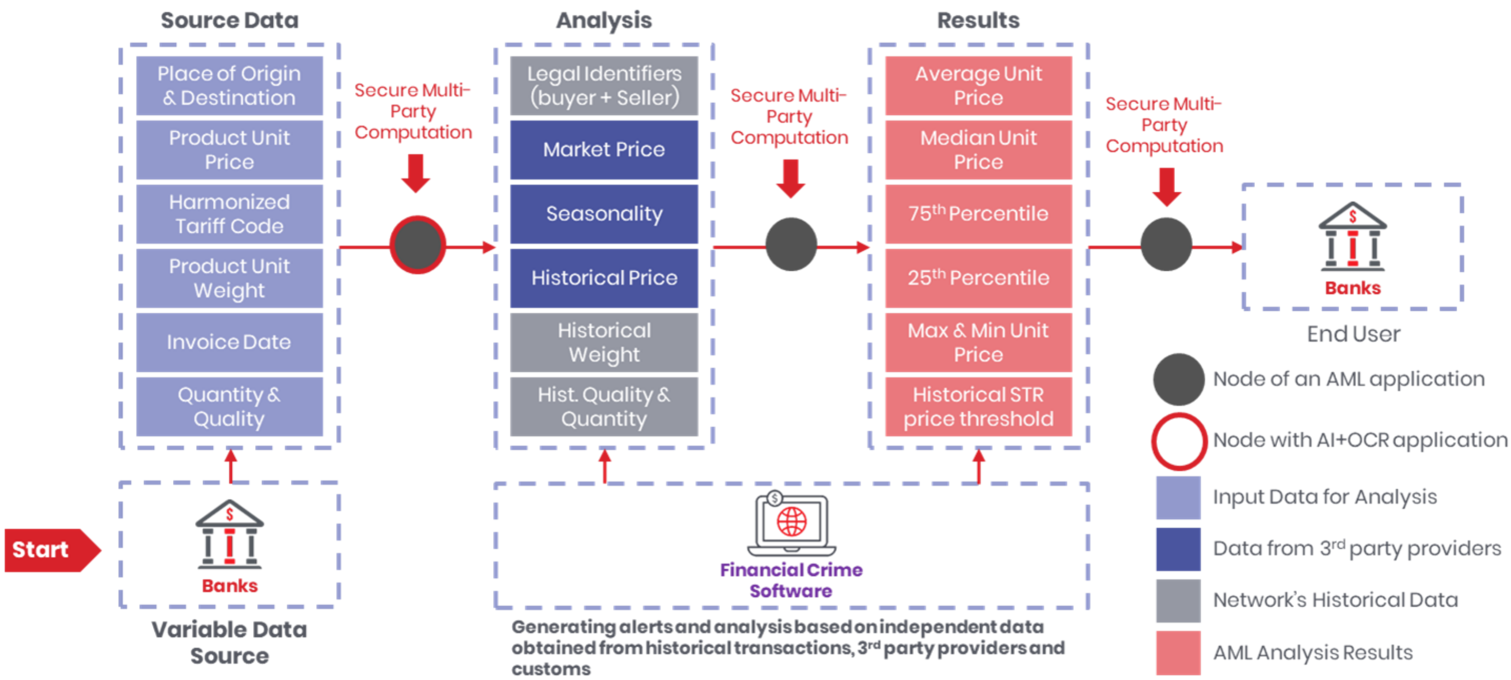
- Sharing trade data through blockchain and other technologies to facilitate greater transparency, secure data, and create more effective monitoring. Data could be processed inside a secure enclave and encrypted for confidentiality and security purposes.
- AI-powered transaction checks and invoice fraud risk flagging of the shared registry.

Participants

- FIs
- Government e.g., Customs (where data is not publicly available)
- Logistics providers
- Shippers and shipping companies
- Certificate providers
- Traders
- Inspectors of goods
- Technology providers
- Insurers

Fig. 2: Proposed Solution: Unit Price Analysis - ***Illustrative***





Our Asks to the APEC Finance Ministers

To enhance information sharing, our recommendations are the following:

- Encourage the creation of a regulatory sandbox for TBML:
  - By ensuring regulators understand how the technology works and how it addresses privacy and security concerns, how it complies with existing laws, and get their approval/onboarding.

- Explore government-to-government (G2G) mechanisms to collaborate, such as MOUs or joint initiatives, to enable financial services data connectivity.
  - E.g., the joint statement announced between U.S. Dept of Treasury and Singapore Monetary Authority;[13] The Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific to enable seamless exchange of data between customs and tax offices across economies while also reducing trade transaction costs.[14]

- Encourage international standards to first be deployed locally.
  - E.g., HTS codes, standardized invoice data.

- Encourage economies/jurisdictions in which customs data is not publicly available to disclose this information, and if not, to participate in the solution as a data sharing member.
  - A survey could be deployed about data availability.

- For those economies/jurisdictions in which cross-border data sharing poses a legal problem:
  - Phase 1: Align terminology with regulators.
  - Phase 2: Raise awareness about technology as a tool to comply with existing regulation.
  - Phase 3: "Crash test" the technology in the sandbox, use external audits to check security and privacy compliance.
  - Phase 4: Based on findings on the test, change policy and legislation recommendations if required.

- Seek a continuous improvement and feedback cycle:
  - Encourage regulators to regularly share (say quarterly) most recent trends or emerging typologies observed in TBML in their jurisdiction to enhance awareness for additional diligence including geographies, sectors, goods, etc.

- Work with ADB, World Bank, etc. to direct funding to encourage information sharing and standardization efforts across economies and fund pilot and "sandbox" projects.

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[13] US Department of Treasury, United States – Singapore Joint Statement on Financial Services Data Connectivity https://home.treasury.gov/news/press-releases/sm899

[14] The Framework Agreement entered into force on 20 February 2021. As of May 2021, five economies either ratified or acceded to the Framework Agreement, namely Azerbaijan, Bangladesh, China, Islamic Republic of Iran and the Philippines. In addition, Armenia and Cambodia have signed the treaty, and is open to all other ESCAP member States. https://www.unescap.org/resources/framework-agreement-facilitation-cross-border-paperless-trade-asia-and-pacific

Annexes

Annex A –
A summary table of Privacy Preserving analytical Privacy Enhancing Techniques (PETs)[15]

Technique: (Partial, Somewhat or Full) Homomorphic Encryption (HE)

PET description and benefits	Limitations
Homomorphic encryption is a form of encryption where some operations (like addition, multiplication, or both) can be performed on the ciphertext, and when the result is then decrypted it will have the same result as if the processing had occurred on the plain text. HE allows computations to be run on the encrypted data and then decrypt the result of the computation only.	Traditionally subject to concerns about computational limitations and a lack of widely accepted standards. Early Fully Homomorphic Encryption schemes were exceptionally expensive in terms of computational resource requirements. Recent improvements in these techniques allow for some computations to be completed in relatively short order (seconds and minutes), enabling the practical application of homomorphic encryption to protect sensitive data. Likewise, there are initiatives underway (e.g., Homomorphic Encryption Standardization) to define community standards for HE.[16]

Technique: Secure Multi Party Computation (SMPC)

PET description and benefits	Limitations
SMPC, or multiparty computation (MPC), is a subfield of cryptography concerned with enabling private distributed computations. In particular, it may be used when two or more parties want to carry out analyses on their combined data but, for legal or other reasons, they cannot share data with one another. MPC can also be used to allow private multi-party machine learning: in this case, different parties send encrypted data to each other and they can train a machine learning model on their combined data, without seeing each other's unencrypted data.	Current SMPC systems have relatively high communications costs. SMPC protocols often require a high degree of specificity to the use case, making them hard to generalize. They can also be slower than computing on raw data and are contingent on the availability of the parties involved. However, 'compilers' that abstract the underlying protocols to enable general-purpose computing are reported as under development, supporting data science and machine-learning applications more broadly.

[15]Reprinted from Future of Financial Intelligence Sharing (FFIS), Innovation and discussion paper: Case studies of the use of privacy preserving analysis to tackle financial crime. https://www.future-fis.com/the-pet-project.html
[16] See also Homomorphic Encryption Computing Techniques with Overhead Reduction (HECTOR) iarpa program - https://www.iarpa.gov/index.php/research-programs/hector

Technique: Trusted Execution Environments (TEEs)

PET description and benefits	Limitations
TEEs, or secure enclaves, are a secure area within a physical processor where the processing that happens in that area is hidden from the rest of the processor. TEEs could be used to allow a proprietary algorithm to be run by an untrusted party while ensuring the untrusted party cannot see the algorithm. TEEs often perform and scale well with data size. The technology is commercially developed with Intel's Software Guard Extensions (SGX)™ providing a leading example of enclave computing in Skylake™ processors and their successors. Virtualization of SGX is an emerging capability. ARM's Trustzone and AMD's Platform Security Processor also offer TEE capability. Multiple cloud providers offer SGX hardware where one can run these applications when one does not have direct access to such hardware. Microsoft supports Azure Confidential Computing program; IBM Cloud provides machines with SGX support and Alibaba Cloud has SGX machines as well.	Use of enclave computation may require the use of specific hardware that includes enclave features. For example, Intel(R) SGX™. Some TEE providers enable virtualization as well, but only virtualization on top of TEE-equipped hardware. TEE is considered to be at a relatively high state of technology readiness as a PET. However, much of what an end user expects in terms of usability of a computing product is still very early in development for TEE. A key shortfall at this point in time is the lack of easy-to-use development environments for TEE, which would enable general programmers to use these capabilities efficiently and configure them correctly. Another current shortfall is that leading TEE's such as Intel SGX require interaction directly with the technology provider in order to properly use these security capabilities. TEEs may be vulnerable to certain kinds of side channel attacks. This is where an attacker monitors certain properties of the system, such as the time required to perform an operation, to learn sensitive information.

Technique: Zero Knowledge Proofs (ZKP)

PET description and benefits	Limitations
ZKPs are a method by which an entity can prove that they know something to another entity, without revealing anything other than that they know that thing. ZKPs can be used for authentication. An entity can prove they know a password that proves their identity, without having to reveal their password. ZKP has applications across a variety of use cases – including payments (Zcash), internet infrastructure (NuCypher), digital identity (Nuggets) and others. and it is expected to be a critical enabler of distributed ledger technologies more broadly.	ZKP has only recently seen real-world operational uses as the methodology continues to mature. Scalability can be a technical challenge and, as is common for PETs in 2020, further work is required to develop global community standards for the technology.

Technique: Federated Learning

PET description and benefits	Limitations
In traditional machine learning data is centralized and brought to the model. In federated learning the data is distributed, and the model is sent to the data. What is then centralized is the model updates from all of the federated devices. Federated learning allows a model to be updated without centralizing the data the update is based on. As the central party does not see the data, they need to be confident that the data is structured, cleaned, and encoded appropriately, otherwise it can fail or lead to a poorly trained model. Federated learning is developed and in use in household mobile applications. In March 2019, TensorFlow (a widely used open-source library for machine learning) published TensorFlow Federated, an open-source framework that allows machine learning to be performed on federated datasets.	Federated learning in isolation is not necessarily privacy preserving, as it can be applied in a manner that there are no meaningful privacy guarantees of the models or of the underlying data. It is also important to note that this model does not necessarily produce an equivalent model to the one that would be derived by first combining the training data into a central location; in most cases, a model trained through federated machine learning would be inferior to the one trained on a centralized dataset. Again, one of the challenges being faced is the absence of standards, systems, and homogeneous languages, which permit distinct actors to interact with services based on this technology.

Annex B –
Acronyms used in this paper

Acronym	Meaning
AI	Artificial Intelligence
AML	Anti-Money Laundering
APFF	Asia-Pacific Financial Forum
DLT	Distributed Ledger Technology
FI	Financial Institution
HE	Homomorphic Encryption
HTS	Harmonized Tariff Schedule
KYC	Know Your Customer
LEI	Legal Entity Identifier
NLP	Natural Language Processing
OCR	Optical Character Recognition
PET	Privacy Enhancing Techniques
RA	Remote Attestation
SAR	Suspicious Activity Reports
SMPC	Secure Multi-Party Computation
TBML	Trade-Based Money Laundering
TEE	Trusted Execution Environments
ZKP	Zero Knowledge Proofs