ABAC-APFF Virtual Roundtable

Promoting Interoperable Digital Trade Information Collaboration Platforms and Deep-Tier Supply Chain Financing in the Asia-Pacific Region

Co-organized by
APEC Business Advisory Council (ABAC)
Asia-Pacific Financial Forum (APFF)
The Thai Bankers' Association

10 April 2024, 0800-1030 Thailand Time

ROUNDTABLE REPORT

With the growing use of digital technology, supply chain financing has great potential to enable micro-, small and medium enterprises (MSMEs) to gain access to working capital funding and benefit from effective participation in global trade. This potential can be further magnified by the progress of efforts to make end-to-end digitalization of trade finance on a broader scale across jurisdictions through the standardization of trade documents and interoperability of legal frameworks governing digital documents, including the alignment of laws with the UNCITRAL Model Law on Electronic Transferable Records (MLETR).

The establishment of the Digital Trade Connect Network (DTCN) by the APEC Business Advisory Council (ABAC), the ASEAN Business Advisory Council (ASEAN BAC) and the Asia-Pacific Financial Forum (APFF) Digital Trade Finance Lab in 2023 and the expansion of participation by member economies of APEC and ASEAN in 2024 are important steps toward greater participation of the region's MSMEs in global trade.

Further steps are needed to accelerate progress. One is the development of digital trade information collaboration platforms in all economies joining the DTCN that can interoperate with each other. The platforms in the three economies that initiated the DTCN – TradeWaltz[1] in Japan, NTP[2] in Singapore and NDTP[3] in Thailand – provided the mechanism for conducting the proofs of concept for standardization of trade documents that successfully demonstrated improved security, efficiency, and transparency in cross-border transactions (TradeWaltz also completed its POC with TradeWindow of Australia and New Zealand).

In addition to the development of such platforms in participating economies, which enables the secure and trusted sharing of digitalized and standardized trade documents among participants in the trade

[1] https://www.tradewaltz.com/en/

[2] https://www.ntp.gov.sg/#/

[3] https://mddb.apec.org/Documents/2021/DESG/SYM/21_desg_sym_007.pdf

ecosystem (including exporters, importers, banks, carriers, insurers and customs and regulatory authorities), it is important to also enable the development of the digital infrastructure for supply chain finance that can benefit not just primary suppliers, but also the various enterprises comprising the supply chain, including micro- and small enterprises. The development of deep-tier supply chain finance (DTSCF) alongside efforts to advance the DTCN will enable the benefits from end-to-end digitalization of trade to cascade down the layers of the supply chain to MSME suppliers, which make up the huge part of enterprises faced with the estimated USD 2.5 trillion global trade financing gap.

A study by the Asian Development Bank (ADB)[4] cites the benefits of DTSCF platforms, including enabling buyers to connect with and facilitate financing for the deeper parts of their supply chains, providing transparency in the flow of capital throughout the supply chain to buyers and financiers to help prevent fraud, generating credit risk data that can facilitate risk assessment, and significantly reducing operational costs and errors. Several DTSCF models exist and a number of fintech firms have been providing digital platforms using different financing mechanisms, technologies and platform design. However, there remain challenges in the ecosystem to the wider adoption and scaling of DTSCF, including legal and regulatory issues and the lack of incentives, that need to be addressed by relevant government agencies and regulators.

This virtual roundtable identified key elements of common principles for interoperable deep-tier digital supply chain finance platforms that APEC and the public and private sectors in its member economies, in collaboration with international organizations, can adopt (a) to advance the development of interoperable digital trade information collaboration platforms among economies participating in the DTCN; and (b) to address the legal, regulatory and policy challenges hindering the wider adoption and scaling of DTSCF. The outcomes of these discussions will serve as basis for recommendations that ABAC will incorporate in its 2024 reports to the APEC Finance Ministers and APEC Leaders.

DEVELOPMENT OF INTEROPERABLE DIGITAL TRADE INFORMATION COLLABORATION PLATFORMS

A panel of experts discussed the development of digital trade infrastructure and collaboration platforms in Japan, Singapore and Thailand.

Japan: TradeWaltz

TradeWaltz is a digital trade platform operated by TradeWaltz Inc, a 100% privately owned digital transformation (DX) startup established in 2020, with shareholders comprised of 16 major trade industry players.[5] It has over 65 production users in Japan and more than 120 globally, and more than 250 consortium members that participate in the planning and promotion of trade DX. TradeWaltz digitizes the analog operations of trade using blockchain technology connecting cargo owners (manufacturers, trading companies, distributors), logistics companies (shipping companies, airlines, freight forwarders), financial service providers (banks and insurance companies) and government institutions (customs and other platformers) [see Figure 1].

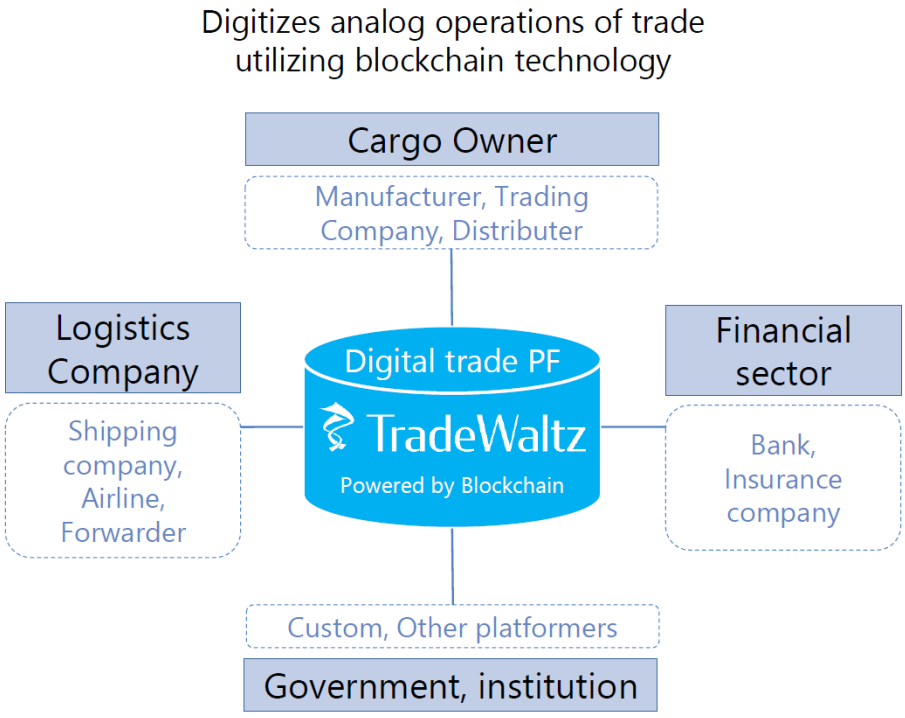
---

[4] Sunil Mascarenhas, Aparna Soli Bhalla, Carmen Maria Ramirez Ortiz, Ben Sandstad and Angelia Chia, *Deep-Tier Supply Chain Finance* [ADB Brief No, 129], September 2022 - https://www.adb.org/publications/deep-tier-supply-chain-finance

[5] These include: NTT DATA Corporation, Toyota Tsusho Corporation, UTokyo Innovation Platform Co., Ltd., Sumitomo Corporation, Mitsubishi Corporation, TW Link Corporation(Joint Venture of Kanematsu, Corporation), Tokio Marine & Nichido Fire Insurance Co., Ltd., Toyoshima & Co., Ltd., Kamigumi Co., Ltd., Fujitrans Corporation, Mitsui-Soko Holdings Co., Ltd., Nissin Corporation, MUFG Bank, Ltd., Marubeni Corporation, Mitsubishi Logistics Corporation and Sompo Japan Insurance Inc.

TradeWaltz aims to provide an “all-in-one” solution that includes (a) a cross-industry trade platform for importers, exporters, issuing banks, advising banks. Insurance companies, logistics companies, shipping companies and chambers of commerce; (b) a wide coverage of documents (letters of credit, invoices, packing lists, bills of exchange, shipping instructions, bills of exchange, sea way bills, bills of lading, export permits, etc.) stored in structured (reusable) data (as opposed to PDF images), and (c) an ecosystem linking with other platforms and utilizing the accumulated data that can be used to generate new business. Currently, TradeWaltz is working on integrating with major insurance companies’ systems through which insurers can issue policies and send them to the shippers through TradeWaltz, as part of its Electronic Insurance Policy functionality. Also, TradeWaltz is initiating to develop LC digitalized process with major banks.

FIGURE 1: Overview of TradeWaltz



Source: TradeWaltz

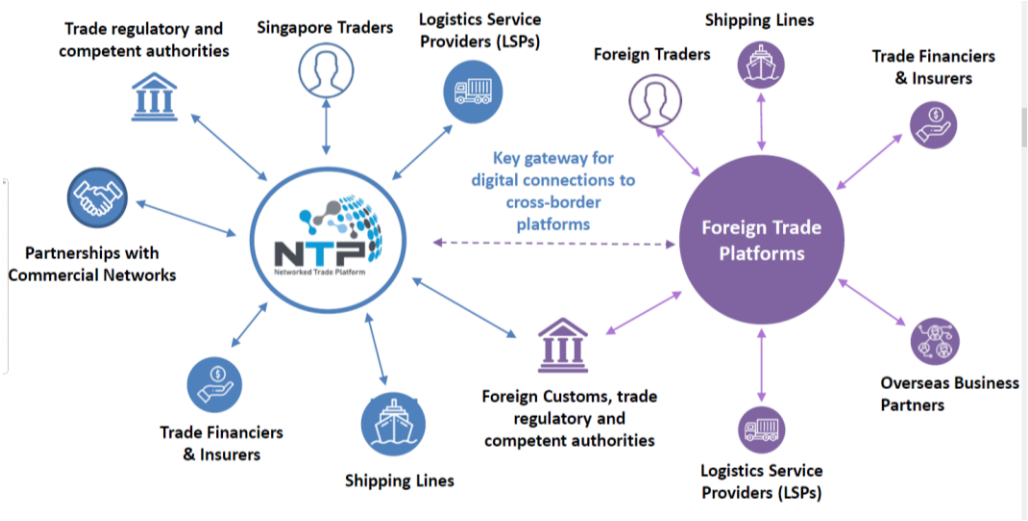
Trade digitalization in Japan was supported by the Japanese Government through the approval by the Cabinet in June 2023 of the “Basic Policies for Economic and Fiscal Management and Reforms 2023” and the “Grand Design of New Capitalism and Action Plan 2023,” which included the “digitalization of trade procedures.” This paved the way for the formulation and implementation of measures across government ministries and agencies. The Ministry of Economy, Trade and Industry (METI) hosted study group discussions including platforms such as TradeWaltz, shipping companies and freight forwarders to identify pain points in trade procedures and explore strategies for expanding the use of digital trade platforms. TradeWaltz also participates in the International Data Governance Advisory Committee established by the Digital Agency aiming to create international rules governing international distribution of corporate data.

The Japanese government also supported cross-border connections between digital trade platforms using standardized data on blockchain in Japan and ASEAN as part of the ASEAN-Japan Economic Co-Creation Vision and the Implementation Plan of the Joint Vision Statement on ASEAN-Japan Friendship and Cooperation Trusted Partners. Leveraging on public sector support, TradeWaltz is currently working to expand its platform linkages with Indonesia (focus on end-to-end trade facilitation project with digital customs clearance service provider HAKOVO), Thailand (focus on platform integration, including customs systems) and Viet Nam (completed in 2023 a proof of concept of letters of credit with the TradeFlat platform and currently focusing on end-to-end trade facilitation encompassing customs clearance by connecting the two trade platforms).

Singapore: Networked Trade Platform (NTP)

The Networked Trade Platform is a transformational platform under Singapore Customs that works toward greater connectivity with the economy's trading partners, with a vision of a global network that enables the efficient flow of goods and services linked to a secure flow of financing and facilitated by a swift and seamless exchange of data and making it possible for relevant parties, including regulatory and customs authorities to work together to facilitate trade. The NTP works to achieve this vision by minimizing the cost and effort to connect among trade partners, connecting and collaborating locally and overseas with new and existing partners, and enables applying for trade-related e-services directly with Singapore Customs [see Figure 2]. Key to the effective operation of the NTP is whole-of-government support from all relevant agencies involved in the process of trade.[6]

FIGURE 2: Overview of the Networked Trade Platform



Source: NTP, Singapore Customs

The NTP has three focus areas:

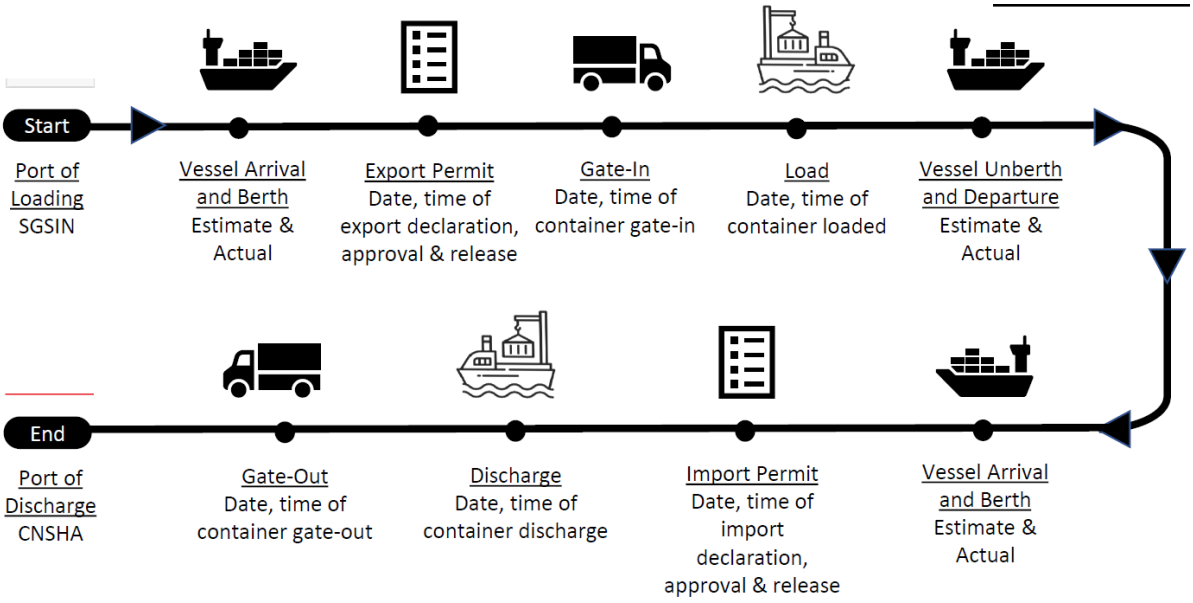
[6] These include the Ministry of Trade and Industry, Singapore Customs, Ministry of Finance, Monetary Authority of Singapore, GovTech, Economic Development Board, Enterprise Singapore, Infocomm Media Development Authority, Maritime and Port Authority, Civil Aviation Authority of Singapore, Ministry of Transport, Accounting and Corporate Regulatory Authority, Building and Construction Authority, Central Narcotics Bureau, Health Sciences Authority, Ministry of Health, the Environment Agency, Singapore's Parks authority, Land Transport Authority, Inland Revenue Authority of Singapore, Singapore Civil Defence Force, Singapore Food Agency and the Singapore Police Force.

Focus Area 1: Enhancing Government-to-Government (G2G) connectivity to expedite trade clearance processes. An example of this is the establishment of the electronic exchange of Preferential Certificate of Origin (PCO) and Certificate of Non-Manipulation (CNM) under the China-Singapore Free Trade Agreement Upgrade that was negotiated and concluded in 2018. This allows for the electronic exchange of PCO and NCM between the customs authorities of Singapore and China and eliminated the need for hard-copy documents, enabling companies to save on costs and time.

Focus Area 2: Streamlining Business-to-Government (B2G) processes. An example is the e-guarantee@Gov program, which provides a master agreement covering whole-of-government relationship with banks with standardized guarantee text, and the electronic transmission of variable data through the NTP. This benefits traders applying for guarantees from banks by eliminating manual review and vetting processes, removing the need to issue and safekeep paper-based guarantees, achieving savings (cost, time and manpower), reducing variation and error, eliminating the risk of loss of paper-based guarantees during transit, and ensuring authenticity of guarantees and reducing risk of fraud.

Focus Area 3: Developing data services using trusted government data. An example is the Container Track and Trace arrangement between Singapore and China. Starting with the initial scope of collaboration between Singapore and two ports in China (Shanghai's Yangshan port and Guanxi's Qinzhou port), this arrangement increases visibility to all parties for key container movement events, enables better planning and clearer accountability for each stakeholder, and supports overall supply chain planning [see Figure 3].

FIGURE 3: Container Track and Trace between China and Singapore

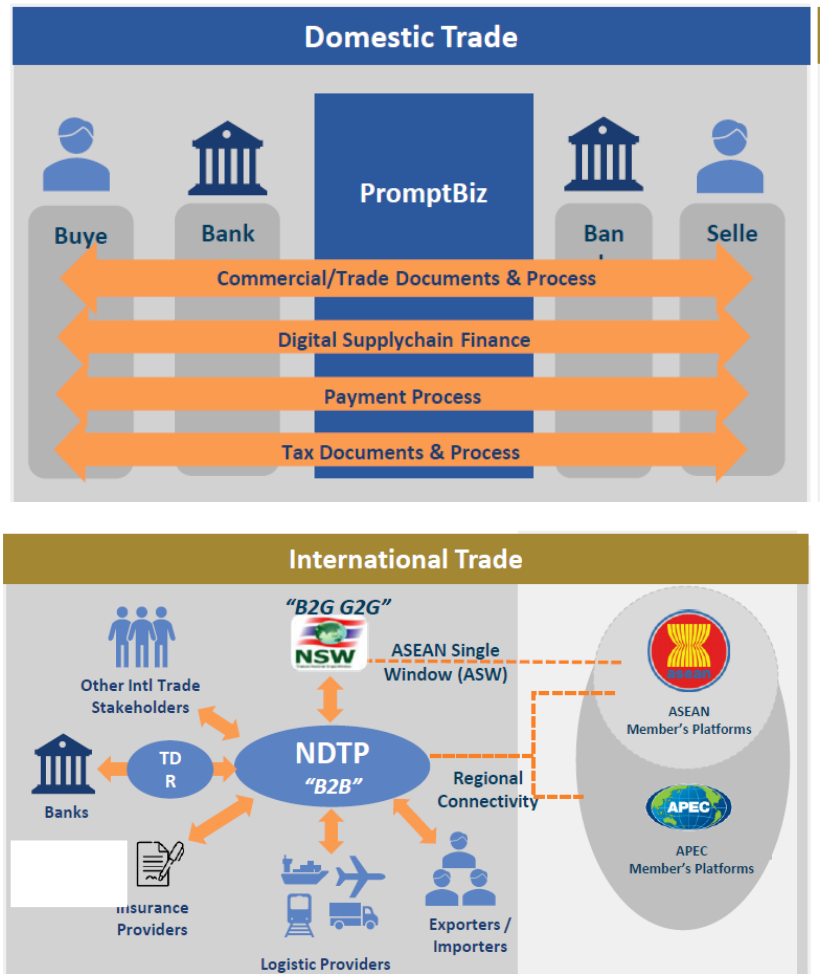


Source: NTP, Singapore Customs

Thailand's Digital Trade Transformation: PromptBiz, NDTP and PromptTrade

Thailand's digital trade transformation currently has two tracks – one for domestic trade and another for international trade. Both tracks involve close collaboration between the public and private sectors [see Figure 4].

FIGURE 4: The Two Tracks of Thailand's Digital Trade Transformation



Source: The Thai Bankers' Association

- Domestic trade digitalization centers on PromptBiz as the digital platform handling commercial and trade documentation and processes, digital supply chain finance, payments and tax documents and process between buyers and sellers and their respective banks. This is under the leadership of the Bank of Thailand, with banks, corporates, software providers, the Revenue Department, Thailand's Interbank Transaction Management and Exchange (ITMX), the Thai Bankers' Association and the Payment System Office comprising the working team.
- International trade digitalization revolves around Thailand's Digital Trade Platform (NDTP). The NDTP is a business-to-business (B2B) platform connecting domestic exporters and importers, logistic providers, insurance providers, banks (through the Trade Document Registry, which allows banks to check for double financing of trade) and other international trade stakeholders. The NDTP also connects to Thailand's Single Window (NSW), which is a business-to-government (B2G) and G2G platform providing a standardized and regulated environment for seamless routing of data and information related to import, export and logistics services among government agencies and businesses, and which connects to the single windows of other ASEAN member economies through

the ASEAN Single Window.[7] In addition, the NDTP aims to provide regional connectivity to platforms of ASEAN and APEC member economies, parallel to the NSW. The NDTP is a public-private partnership under the joint leadership of the Joint Standing Committee on Commerce, Industry, and Banking (JSCCIB) and the Office of the Public Sector Development Commission (OPDC), with corporates, banks, logistic providers, freight forwarders, insurers, the Customs Department, the Bank of Thailand, the Electronic Transactions Development Agency (ETDA), ITMX and other government units making up the working team.

To date, the NDTP through the proofs-of-concept pilots with Japan's TradeWaltz and Singapore's NTP has demonstrated interoperability in exchanging digital commercial documents between importers and exporters. These included commercial documents (e-purchase order, e-invoice and e-packing list), transport documents (bill of lading, sea way bill) and others, including certificates issued by governments and insurers, among others. Building on this success, NDTP is currently moving on to the next phase, which will aim to further develop the PromptTrade platform by expanding the existing Trade Document Registry and achieving synergy with PromptBiz.

PromptTrade is intended to include (but not limited to) connecting with selected offshore counterparty economy platforms to facilitate sending and receiving e-documents as required between Thai exporters and importers and their offshore counterparties for payment and collection under open account, documentary collection and documentary credit. Expanding the flow of e-documents is expected to provide more efficient process for financing.

Key lessons from these initiatives are as follows:

- Common standards are important.
- Regulatory and legal frameworks need to be coordinated to ensure interoperability between two jurisdictions.
- Strong participation from key stakeholders is needed to create initial take-up leading to wider adoption.

PROMOTING DEEP-TIER SUPPLY CHAIN FINANCING IN THE ASIA-PACIFIC REGION

Participants discussed the challenges facing DTSCF in Asia-Pacific economies (especially legal, regulatory and policy challenges) and how these can be addressed through policy initiatives and collaboration among the public and private sectors and international organizations.

The ADB estimates that the global trade financing gap (the difference between demand for financing to support trade activities and the sum available from lenders) has grown from USD1.5 trillion in 2018 to USD2.5 trillion in 2022,[8] with MSMEs making up the bulk of financing rejections. SCF has been identified as a solution to bridge this financing gap for MSMEs, particularly through payables finance that allows the end-buyer's credit profile to unlock financing for suppliers. Upgrading supply chains can

[7] In addition, the NSW acts as a functional integrator and host for shared applications, bringing regulatory and commercial functions, streamlining the processing of standardized and harmonized information flow related to cross-border trade transactions; provides an electronic file repository for sharing references among relevant parties, such as implementation guidelines, laws, regulations, agreements, among others; and serves as a gateway and single point of access to interconnect with the ASEAN Single Window and other Single Window systems within and outside the ASEAN region, UN Network of Experts for Paperless Trade in Asia and the Pacific, *Toward a Single Window Trading Environment*, Brief No. 8, August 2012.

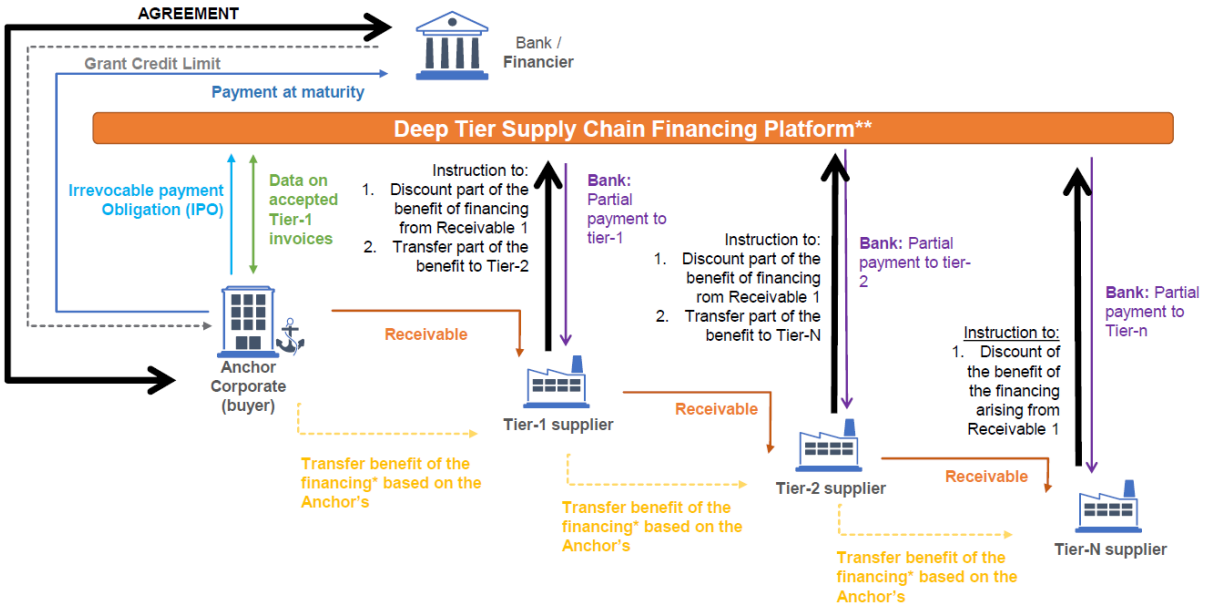
[8] Steven Beck, Mara Claire Tayag, Kijin Kim, Ma. Concepcion Latoja, Ankita Pandey and Alexander Malaket. 2023 Trade Finance Gaps, Growth, and Jobs Survey, September 2023 - https://www.adb.org/publications/2023-trade-finance-gaps-growth-jobs-survey

improve the position of MSMEs, enhance transparency and traceability and link parties, standards, behavior and data not only to promote greater inclusivity but also sustainability.

However, traditional SCF has had limited impact on the financing gap as it has not reached significantly beyond first-tier suppliers in most supply chains, especially in the larger and more geographically dispersed supply chains that have multiple layers of MSME suppliers. By promoting a platform-based approach digitally connecting all participants in the supply chain, DTSCF has the potential to unlock funding for the deeper-tier MSME suppliers, enable data flows and traceability, address and track sustainability and ESG performance and link behavior to financing incentives [see Figure 5]. This approach can address several critical issues:

- It allows anchor corporates to connect with and to potentially gain visibility over their suppliers down the supply chain beyond their first-tier suppliers. It allows requests for financing to be referred to the platform by higher-tier suppliers, which can be onboarded digitally, and enable access to financing in a shorter period of time.
- It produces transparency in the flow of financing, from request to delivery of funding to the original requester, providing more security for the anchor corporate and the financier, and a mitigant to fraud, such as fake invoices.
- The platform can generate data around the credit risk of onboarded suppliers and buyers, thus contributing to better risk assessment.
- The platform approach can greatly reduce operational costs and the risk of error.

FIGURE 5: Deep-Tier Supply Chain Finance



Source: Asian Development Bank

Wider adoption of DTSCF faces a number of challenges, including lack of harmonized legal approach, the regulatory landscape, currency factors, access to technology, buyer linkage and ownership and knowledge. The lack of clarity around regulations and laws as applied to DTSCF models, use of

blockchain and electronic trade documents and the level of KYC/AML requirements needed across jurisdictions are key legal considerations for supply chain participants.

- For fintechs, other inhibitors are lack of market awareness, the difficulty of engaging buyers that lack financing arms for implementation of DTSCF and integration challenges due to lack of standardization with bank technology.
- For banks and financiers, the other obstacles are lack of clarity around revenue incentives due to uncertainty around sustainability and scalability of DTSCF models and lack of government incentives to promote ESG, as well as the complexity of integrating with fintech technology.
- For anchor buyers, other major constraints include lack of resources to onboard and maintain DTSCF program and the lack of government incentives, especially with respect to ESG.
- For suppliers, other key inhibitors include the lack of clarity on how their data will be used and stored, lack of resources to maintain the platform, and limited access to devices and connectivity in many areas of developing economies.

Scaling DTSCF will require addressing challenges related to legal frameworks, adoption and technology. Following are ways to do so:

- *Standardize relevant legal frameworks* by (a) encouraging the uptake of the UNCITRAL model laws on secured transactions and electronic transferable records; (b) ensuring that the tiering method is transparent and auditable so ownership of payment obligations and the flow of funds can be monitored; (c) establishing dispute resolution mechanisms; (d) agreeing on effective and enforceable mechanisms for contractual and/or common terms among parties and various tiers of suppliers; (e) establishing court precedent around rights of the holder of digital payment obligations; and (f) providing clarity around the level of KYC required across jurisdictions.
- *Improve market awareness*, such as through showcasing of successful DTSCF implementation by industry leaders,
- *Incentivize adoption*, such as through (a) multilateral institutions' establishment of risk-sharing programs with banks; (b) recognition of payment obligations used in DTSCF as enforceable obligations of payment to the holder across jurisdictions; (c) development of key performance indicators around MSME lending volumes and ESG reporting across supply chains; and (d) more appropriate capital charges for ESG-linked financing solutions.
- *Accelerate collaboration* among industry players, including buyers, suppliers, financiers, DTSCF fintechs, multilateral institutions, governments and policy makers.
- *Foster innovation,* including through regulations that encourage and support technology applications to trade and broader trade digitization.

An enabling environment for DTSCF will require the development of a broader movable asset finance market. SCF, which involves organizing receivables and inventory finance by leveraging chain relationships among major buyers and sellers is a major segment of movable asset finance. In this context, many APEC economies still lack substantive reforms in their secured transactions framework and development of movable asset finance markets. Following are essential elements of an enabling environment:

- A clear, effective and efficient Secured Transactions legal framework, including a modern collateral registry;

- Judicial effectiveness and understanding; emergence of judicial cases;
- An active lending industry competent in movables finance including SCF;
- Supportive banking/finance regulations and supervisory practice (including a friendly environment for non-deposit-taking lenders);
- Efficient and reliable support services (collateral management, credit enhancement, among others);
- Discerning business borrowers who understand the movables finance or SCF mechanisms;
- Electronic finance platforms (platforms) linking up value chain actors (e.g., lead firms, suppliers, financiers, service providers, etc.);
- Development of sector capacities (e.g., industry associations, sector standards/guidelines, knowledge development, statistics);
- Support of the non-financial ministries and local governments (e.g., formalization and digitalization of value chains, collaboration of lead firms, and formalization of the warehousing/logistics industry, among others); and
- Development of priority segments, e.g., factoring, financial leasing, infrastructure financing backed by receivables, bond/note issuance backed by receivables, among others.

Case Study: India

Micro- and small enterprises (MSEs) account for 99 percent of all enterprises (60 percent in the non-manufacturing sector).[9] In the trade credit market, the unmet formal financing gap is roughly equivalent to around USD68 billion, making up 57 percent of total monthly trade credit.[10]

MSEs' low ticket size, utilization volatility, and low trade wallet share require difference structures than traditional bank or non-bank financial institutions-based SCF. These enterprises are also considered as credit unready (without access to affordable unsecured trade credit) due to fragmented sales, low net margins and limited order visibility.

Properly addressing this challenge required an analysis of what MSMEs really need. The following have been identified: (a) credit tailored to their needs, in terms of rate, tenor and limits; (b) embedded finance is preferred over apps; (c) interoperable solutions that work for their entire trade and not just for one buyer/customer; (d) no standards battle; and (e) affordable foreign currency financing. Based on this analysis, the government focused on *providing digital public infrastructure combining identity, data and compliance leveraged by regulated exchanges and fintech lending applications* [see Figure 6].

A review of the current status of implementation reveals both the opportunities and challenges of DTSCF in India, where the challenge is to meet the estimated USD900 billion total working capital requirement of the MSME sector.[11] The Trade Receivables Discounting System (TReDS) is a regulated digital factoring exchange for MSMEs in the supply chain of large corporate buyers, where they can auction their trade receivables at competitive rates through online bidding by financiers. About 80 thousand suppliers of 4,500 rated corporates receive financing worth USD2 billion per month.[12] Being

9 https://msme.gov.in/sites/default/files/MSMEANNUALREPORT2022-23ENGLISH.pdf

10 Industry Estimates based on Trade GDP and Industry GVA.

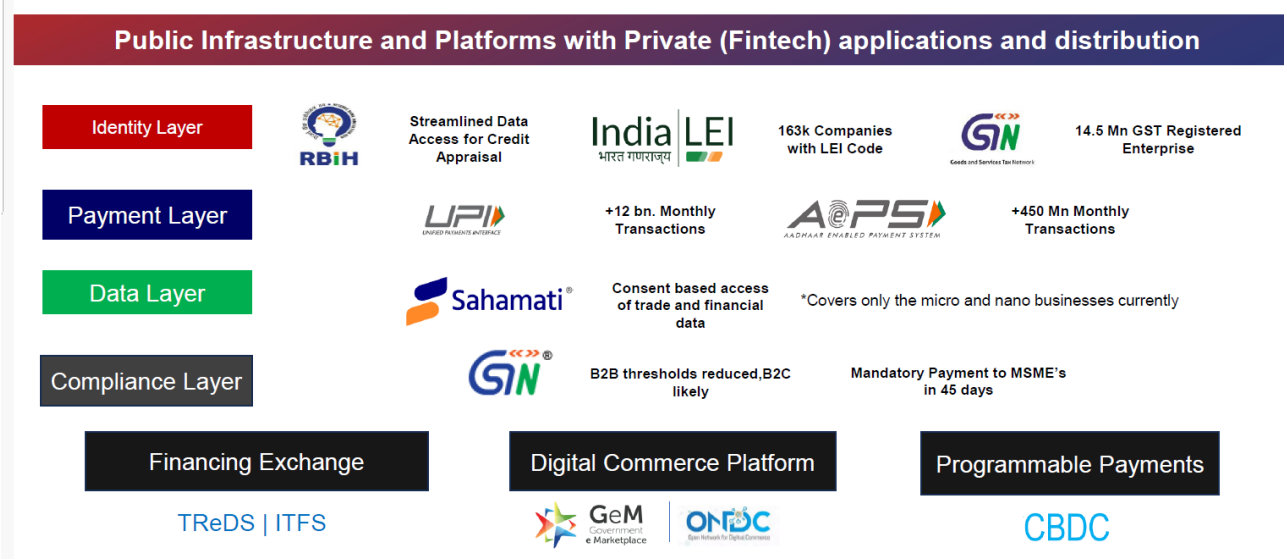
11 IFC Report (Financing India's MSMEs – 2018)

12 TreDS Monthly Statistics

buyer-centric,[13] however, it involves huge participation barriers for MSMEs and is limited to first-tier suppliers.

India's Open Credit Enablement Network (OCEN)[14] is a framework of APIs for interaction among lenders, loan agents, collection and disbursement partners, derived data providers and account aggregators, which provides an open architecture for borrowers and lenders to connect through a plug-and-play model. Lending costs are reduced through streamlined data access for credit appraisal.

FIGURE 6: India – The MSE Credit Stack



Source: Ram Iyer, Indian Perspective on Deep Tier Trade Financing

India|LEI - *Legal Entity Identifier is an initiative of Global Legal Entity Identifier Foundation (GLEIF) mandated in India's central bank for transactions worth more than USD 625k.*
GSTN – *Goods and Services Tax Network, India's Indirect Tax Network enabling e-invoicing, e-waybills, etc.*
UPI – *Unified Payment Interface, a real-time digital payment system for P2P transactions via mobile phones.*
AEPS – *Adhaar Enabled Payment System, an identity-based payment system to enable large-scale financial inclusion.*
Sahamati – *Powering harmonious adoption of the account aggregator (AA) framework to enable consent-based exchange of borrowers' financial data.*
ITFS – *International Trade Finance Services, an Indian platform built for the world to enable financing for cross-border transactions.*
GeM – *Government e-Marketplace, a digital platform for public procurement and sales of goods and services.*
ONDC – *Open Network for Digital Commerce, an open and interoperable protocol to democratize e-commerce.*
CBDC – *Central Bank Digital Currency developed by India's apex bank The Reserve Bank of India (RBI).*

Fintech-led SCF, such as ones provided by platforms like Vayana[15] can enable DTSCF up to fourth-tier suppliers in the chain while ensuring affordability. Vayana's USD20 billion annual platform-led SCF portfolio has been growing at 8-10 percent on a year on year basis. However, covering all tiers of the supply chain is a process that is expected to take a significant amount of time. Vayana adopted a credit logistics approach to affordable financing for MSEs, as it evolved through the past 7 years. Starting out by building the entire digital credit infrastructure for trade documentation and financing, compliance and cash flow, it became the largest data and analytics repository on supply chains scoring to assess

[13] https://www.rbi.org.in/commonperson/English/Scripts/FAQs.aspx?Id=3138

[14] https://ocen.dev

[15] Vayana is India's largest trade financing platform, facilitating USD15 billion financing per annum, the largest e-invoicing processor, the largest supply chain risk management platform for corporates and the economy's second largest B2B payments aggregator. It has over 3,000 active supply chains encompassing more than 300,000 MSMEs, of which more than 90 percent are micro- or nano-enterprises.

risks across the chain and is currently building a scalable and affordable trade credit asset model, co-lending with large and low-cost financial institution partners.

The main challenge to DTSCF in India is the lack of deep-tier *upstream* financing product structures. Downstream buyer-initiated SCF is the most tradition and most popular form of DTSCF in the economy. Platforms like Vayana use a "cardio" model of traversing up and down the supply chain. There are long lead times to reach the deeper tiers and success has been uneven across sectors. For most sectors, exclusive deep-tier supply chains are not the norm in India. Regulations around digital negotiable instruments (DNI) and tokenization , structures (securitization) and underdeveloped credit default insurance products are among the issues that need to be addressed. In this context, a central bank digital currency could be a promising enabler.

Case Study: China

The China case study highlighted the important role that technology can play in providing financial access to underserved and unserved small and micro-enterprises. MyBank, launched by the Ant Group and regulated by the China Banking and Insurance Regulatory Commission (CBIRC), has in the span of 8 years since its inception in 2015 grown its user base to 86 million MSMEs and small operators, especially in rural areas. In 2022, more than 80 percent of its new credit customers were first-time borrowers of business loans.

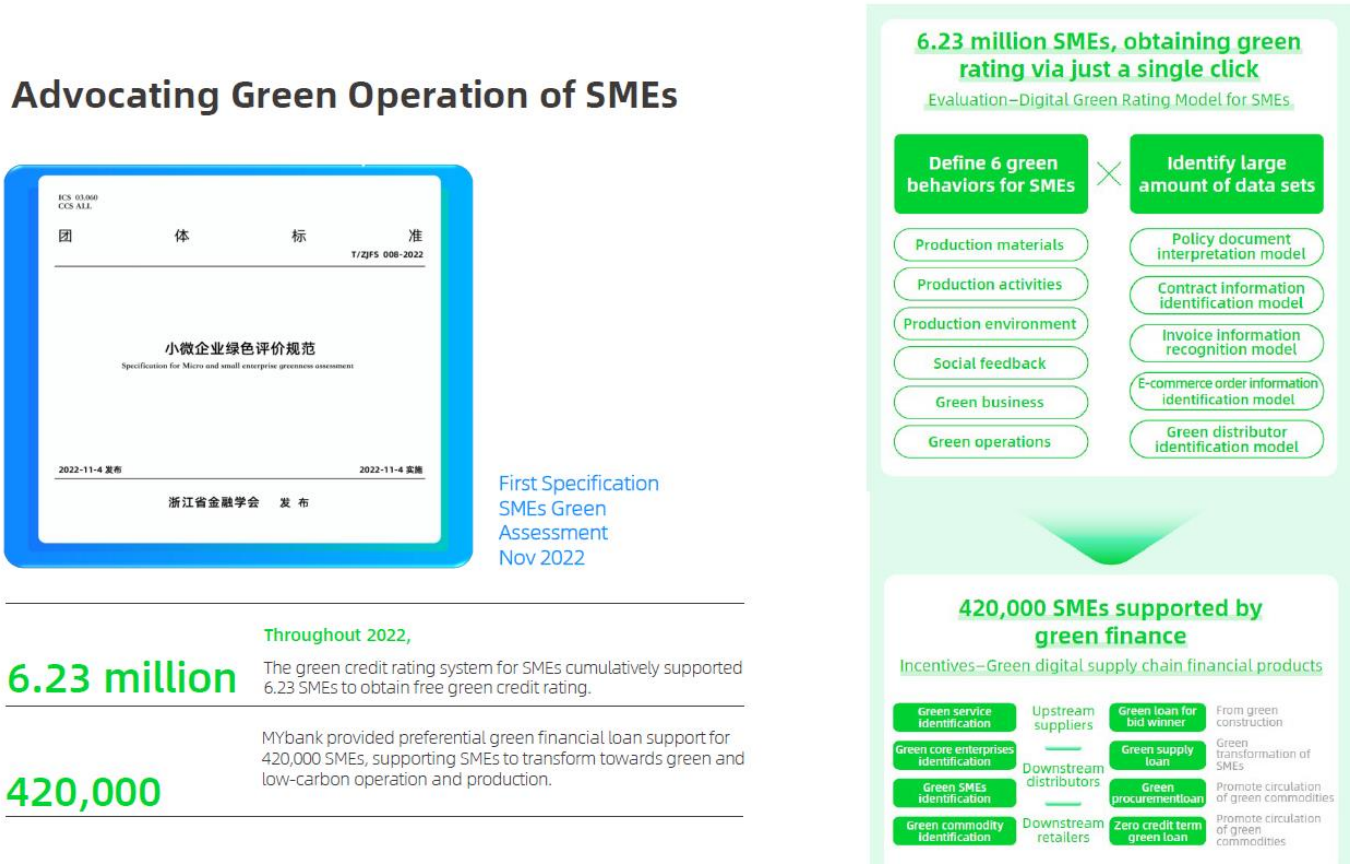
MyBank operates purely online, leveraging technology through automation, standardization and artificial intelligence (AI) to handle quick transactions, deal with a large number of low-income customers with low balances and maintain low operational costs. Its strategy was a response to the introduction by the regulator in 2014 of new regulations promoting inclusive finance and allowing privately-owned organizations to operate in the banking sector to serve the low-income market. It also benefited from high smartphone penetration rates and wide use of e-commerce platforms, which made it possible to leverage mobile-based banking.

MyBank's online-only platform enabled MSMEs to open accounts and apply for loans quickly and conveniently through its "310" lending model – 3 minutes to apply for a loan, loan approval within 1 minute and 0 human interaction needed. Following are key technologies:

- Big data and AI used to assess creditworthiness, allowing for quick and accurate lending decisions, streamlining of operations, reduction of costs and provision of fast and efficient services.
- Built-in algorithms to weigh various risk parameters (e.g, extent of credit history, reliability of income streams, default risk, consumer repayment records from e-payment platforms, smartphone payment records, online profiles, government records and insurance records), to assess loan applications.
- Algorithms for monitoring loans and default risk using online tracking methods to assess monthly sales and predict repayment patterns.
- AI solution using satellite remote sensing and image recognition to enable the use of satellite images, climate data, industry patterns, land registration data from government agencies and information affecting prices and expected growth of agricultural crops to estimate yield and output value of land and provide adequate evaluation of risk as basis for providing credit to farmers.
- Large scale graphic computing and knowledge graphs to promote digital supply chain finance.
- AI credit approver using the self-approval model and credit adjustment.

The use of technology enabled an increase in loan approval rates for MSME loans in digital supply chain finance from 30 to 80 percent. The platform also supports sustainable transition through the integration of technology into the automated loan approval process in order to provide preferential interest rates for MSMEs that implement initiatives to reduce carbon emissions. In 2022, the system enabled more than 6 million MSMEs to obtain a free green credit rating and about 420,000 qualifying MSMEs to access preferential loan support [see Figure 7].

FIGURE 7: China – Advocating Green Operation of MSMEs



Source: Yinfan Zhang, MyBank Overview, Presentation for the Roundtable

CONCLUSION

Supply chain financing has great potential to enable MSMEs to gain access to working capital and benefit from effective participation in global trade. There is indeed progress of efforts, particularly the work of ABAC, ASEAN BAC and the APFF Digital Trade Finance Lab on the Digital Trade Connect Network, and continued efforts to standardize trade documents and align legal frameworks governing digital documents will be needed to ensure that this initiative eventually bears fruit.

The Roundtable discussed two important challenges. The first is how to ensure the development of digital trade information collaboration platforms in all economies joining the DTCN that can interoperate with each other. The second is how to develop the digital infrastructure for deep-tier supply chain finance that can benefit not just primary suppliers, but also the various enterprises comprising the chain, including small and micro-enterprises.

Following are the key elements of common principles for interoperable deep-tier digital supply chain finance platforms that emerged from the discussions:

Across-the-Board Collaboration

- ***Public-Private Partnership***. While digital platforms may be government-led or private sector-led, both public and private sectors need to be involved in the process.
- ***Cross-Industry Collaboration***. All the major players in the trade ecosystem – buyers and suppliers, logistics companies (shipping companies, air lines, freight forwarders), financial service providers (banks, non-bank lenders and insurance companies, fintech firms) need to be involved in the identification of pain points, design and implementation of digital trade information collaboration platforms.
- ***Whole of Government Support***. In order to provide seamless connectivity, effectiveness and efficiency, governments need to provide a framework for collaboration among relevant agencies. These may include trade ministries, finance ministries, economic/planning ministries, interior and local government ministries, defense and security ministries, ministries/agencies responsible for the digital and data ecosystem, transport ministries, health ministries, environment ministries, civil aviation authorities, customs authorities, central banks, financial regulators, maritime and ports authorities, police, coast guard, civil defense and armed forces.
- ***International Collaboration***. Economies need to promote interoperability of laws, policies, regulations and digital platforms by leveraging global initiatives, bodies and processes (e.g., UNCITRAL, UNIDROIT, OECD, standard-setting bodies) and regional processes (ASEAN, ASEAN Plus 3, APEC, Pacific Alliance) and initiatives (ASEAN Single Window, parallel wholesale CBDC initiatives, as well as bilateral G2G collaboration. However, it is important to design and implement regional and bilateral collaborative schemes with a view toward future global interoperability.

Key Areas of Collaboration:

- ***Development of a Movable Asset Finance Ecosystem***. As a way to organize receivables and inventory finance, SCF is a more advanced form of movables finance. Deep-tier SCF is, in turn, an advanced form of SCF. Without sufficient development of the overall movables finance market, it is not likely that SCF will happen in major scale, not to mention deep-tier SCF. This is thus essential for a healthy and functioning supply chain financing environment. The key elements are (a) clear, effective and efficient secured transactions legal frameworks; (b) judicial effectiveness and understanding; (c) an active lending industry competent in movables financing; (d) supportive financial regulations and supervisory practice, (e)efficient and reliable support services (collateral management, credit enhancement among others); (f) business borrowers who understand SCF mechanisms; (g) e-platforms linking up value chain actors; (h) priority segments (e.g., factoring, financial leasing, financing backed by receivables; bonds or notes backed by receivables); (i) support of relevant ministries and local governments; and (j) sector capacities (e.g., industry associations, industry guidelines and sector standards and guidelines, data).
- ***Common Understanding/Convergence of Standards, Definitions and Legal Frameworks around Technology, Data and Documentation related to Trade and Supply Chain Finance***. Examples are international rules governing international distribution of corporate data, alignment of legal

frameworks governing electronic documents (e.g., UNCITRAL's MLETR), laws and regulations enabling DTSCF models, dispute resolution mechanisms, use of blockchain, level of KYC/AML requirements across jurisdictions.

Key strategies:

- ***Building Block Approach***. While the existence of multiple global, regional and bilateral initiatives carries the risk of increasing fragmentation, it also offers opportunities to move ahead without reinventing the wheel. Through coordination and collaboration, economies can leverage what has already been developed in ASEAN, ASEAN Plus 3, APEC and the G20 as well as in bilateral G2G initiatives to find pathways to convergence or common understanding.
- ***Win-Win Collaboration***. Initiatives can progress more effectively if they are able to identify the stakeholders who can reap the most benefits (which may be different from one economy to another) and mobilize them in advancing policy and regulatory reforms.
- ***Platform-Based Approach***. A platform-based approach digitally connecting buyers and all suppliers from the 1st to the nth tier of the supply chain can enable DTSCF to unlock capital for the deeper-tier MSME suppliers, enable data flows and traceability, address and track sustainability and ESG performance and link performance to financing incentives.
- ***Analysis of MSMEs' Needs***. The starting point of any effort by an economy to promote the digitalization of trade and supply chain finance should be the identification of MSMEs' needs, since MSMEs are intended to be the main beneficiaries of such initiatives and the required policy components, including those related to improved access to finance, financial and digital literacy, consumer protection and protection of data privacy and security, among others.
- ***Fostering Financial Innovation***. By encouraging the adoption of new technology applications to digitalize trade and supply chain finance through regulatory approaches that allow innovative firms to serve low-income markets, economies can enable new solutions that can accelerate financial inclusion.
- ***Incentivizing Adoption***. The public sector and multilateral institutions can contribute to wider adoption of DTSCF by providing innovative incentives. These may include establishment of risk-sharing programs with banks, recognition of payment obligations used in DTSCF as enforceable obligations of payment to the holder across jurisdictions, development of key performance indicators around MSME lending volumes and ESG reporting across supply chains, and designing more appropriate capital charges for ESG-linked financing solutions.

Advancing the development of interoperable digital trade information collaboration platforms among economies participating in the DTCN and promoting wider adoption and scaling of DTSCF requires strong collaboration among the public and private sectors and international organizations. With robust mechanisms for such collaboration, APEC is well-positioned to provide a platform for achieving these goals. As the private sector through ABAC, ASEAN BAC and the APFF Digital Trade Finance Lab pursues the further expansion and deepening of the DTCN, strong support from APEC and its member economies and multilateral institutions can help MSMEs play a critical role in achieving the APEC vision of free and open trade and investment in the Asia-Pacific region.

AGENDA

(*Times displayed are Thailand Time*)

08:00-08:05	**OPENING SESSION** **Welcome Remarks** Mr. Kobsak Duangdee, Chair, Asia-Pacific Financial Forum (APFF); and Secretary General, The Thai Bankers' Association
08:05-09:05	**SESSION 1** **DEVELOPMENT OF INTEROPERABLE DIGITAL TRADE INFORMATION COLLABORATION PLATFORMS** *This session will look at the development of the digital trade information collaboration platforms in APEC member economies and identify key requirements (a) for secure and trusted sharing of digitalized and standardized trade documents among participants in the trade ecosystem and (b) for interoperability with counterpart platforms within the DTCN.* Moderator: Mr. Tat Yeen Yap, Sherpa, APFF Digital Trade Finance Lab; and Head of Supply Chain Solutions, Maybank Singapore
	Mr. Takahiro Sato, President and CEO, Trade Waltz Mr. Phattharaphon Ratanasuvan, Senior Vice President, Trade Services, Bangkok Bank Public Company Limited Ms. Wai Yee Choo, Director, Networked Trade Platform (NTP) Office, Singapore Customs **Open Discussion**
09:05-10:25	**SESSION 2** **PROMOTING DEEP-TIER SUPPLY CHAIN FINANCING IN THE ASIA-PACIFIC REGION** *This session focuses on the challenges facing DTSCF in Asia-Pacific economies (especially legal, regulatory and policy challenges) and how these can be addressed through policy initiatives and collaboration among the public and private sectors and international organizations.* Moderator: Mr. Bob Trojan, Sherpa, APFF Data Ecosystem Working Group; and President and CEO, Token Insights
	Mr. Sunil Mascarenhas, Relationship Manager, Supply Chain Finance Program, Asian Development Bank Mr. Jinchang Lai, Sherpa, APFF Financial Infrastructure Development Network; and Principal Operations Officer, Asia and Pacific, Financial Institutions Group, International Finance Corporation (IFC) Mr. Ram Iyer, Founder and CEO, Vayana Mr. Yinfan Zhang, Director, International Public Policy & Gov Affairs, Ant Group **Open Discussion**
10:25-10:30	**CLOSING SESSION** **Concluding Remarks** Dr. Julius Caesar Parreñas, Coordinator, Asia-Pacific Financial Forum; and Senior Advisor, Daiwa Institute of Research
	Master of Ceremonies: Ms. Indharatana Sriprajittichai, Subject Matter Expert, Thai Bankers Association