

POLICY BRIEF

# Enabling the Digital Transformation of Global Trade in the New Normal



Largely paper-driven, the global trade system is plagued with multiple requirements, complex documentation flows, and information asymmetry. Photo credit: Asian Development Bank.

*Legislative and regulatory reforms are crucial to shifting toward a seamless, harmonized, and paper-less trade system.*

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## Introduction

With the widespread shift to online channels among businesses and consumers during the coronavirus disease (COVID-19) outbreak, e-commerce surged in Asia and the rest of the world. Over the past year, Alibaba Group's shopping app Lazada onboarded 70,000 merchants to its platform.

Before the pandemic, there was already an upward trend in the digital market in Asia. Yet, the uptake of cross-border paperless trade has been dismal.

The pandemic hampered supply chains and exposed the shortcomings of paper-based processes, which were slowed down by lockdowns imposed by countries. The Suez Canal blockage was another exogenous shock that clogged a vital artery in global trade and underscored the inefficiencies of its manual systems. But amid the disruptions, these events have also served as a catalyst for scaling up

the digitalization of supply chains and fostering resilience in the global trading system, which are crucial for rebuilding economies beyond the pandemic.

This policy brief is based on the presentations at the 16th Policy Actions for COVID-19 Economic Recovery (PACER) Dialogue organized by the Asian Development Bank (ADB).

## Paper-Intensive Trade Processes

In 2014, shipping company Maersk tracked the paper trail of a shipment of roses and avocados from Kenya to the Netherlands. It found that it involved about 30 organizations, 200 interactions, 100 people, and 34 days. Largely paper-driven, the global trade system is plagued with multiple requirements, complex documentation flows, and information asymmetry. It is estimated that 30% of the time is spent on processing documents, and \$150 billion is lost annually owing to the manual methods in conventional trade finance operations.

The costs and delays associated with onerous documentation woven into a web of regulations are especially too taxing for micro, small, and medium-sized enterprises (MSMEs) to engage in international trade. On top of this, a collateral requirement is typically difficult for many MSMEs to fulfill. ADB's 2019 Trade Finance Gap, Growth, and Jobs Survey revealed that 45% of trade finance applications rejected by banks were from MSMEs. The study also found a \$1.5 trillion trade finance gap, which has only grown during the pandemic and adversely affected MSMEs even more.

In a report on Trade Financing and COVID-19, the ICC estimates \$1.9 trillion to \$5.0 trillion in additional capacity is needed in the trade finance market for a V-shaped recovery from the pandemic. Limited access to finance, coupled with inefficient, costly, and cumbersome paper-heavy trade processes, lowers the economic participation of MSMEs in global trade and limits their job-creating and growth prospects.

Digitalization is a critical component to closing the finance gap and delivering efficiencies to cross-border activities. Seamless digitalized trade would be transformational to the global economy and would make the world more secure through greater transparency and more robust global supply chains. But there are two impediments: the lack of global standards and protocols to drive interoperability and the lack of legislation recognizing digital trade documents.

The lack of standards makes the digital exchange of information difficult and cumbersome and has created fragmentation and inefficiencies in trade. Legislative gaps and legal uncertainty regarding acceptance of digital trade documentation hinder the transition from paper-heavy to digitalized processes in the global supply chain. Most jurisdictions require negotiable instruments to be in paper form.

A multifaceted approach encompassing regulatory reforms, together with an intergovernmental coordination mechanism, a common framework for leveraging data to better assess financing risk, and a trusted global digital identity system for companies, is key to enable the transition to digital trade at scale.

# Policy Actions

## Common international standards

Establishing common international standards allows paperless trade systems to be easily connected to one another, thereby breaking down the digital silos between component parts of the trade ecosystem: exporters, shippers, ports, customs, warehousing, finance, and importers.

Supported by the ADB, the ICC Digital Standards Initiative (DSI) is tasked with advocating the reconciliation of a myriad of standards, rules, and regulations in the global trading system. Central to the initiative is facilitating technical interoperability among both blockchain-based and non-blockchain approaches in the trade space.

## Legal recognition of electronic documents and signatures

A strong framework for the legal recognition of electronic documents and signatures is a fundamental step toward global digital trade. The United Nations Commission on International Trade Law (UNCITRAL) has developed the Model Law on Electronic Transferable Records (MLETR) to enable the use of these records domestically and across borders by recognizing the legal validity of electronic equivalents of paper-based records. MLETR builds on the principles of nondiscrimination against the use of electronic means, functional equivalence, and technology neutrality, which underpin UNCITRAL texts on e-commerce. It may therefore accommodate the use of all technologies and models. The legal recognition and use of electronic transferable records will cause a paradigm shift in international trade by democratizing accessibility to reliable, high-quality, and trusted data.

## Intergovernmental coordination mechanism

Through the Framework Agreement on Facilitation of Cross-Border Paperless Trade in Asia and the Pacific (CPTA), the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) is providing a dedicated intergovernmental framework to develop legal and technical solutions to facilitate cross-border paperless trade among willing member states.

The framework agreement, which took effect on 21 February 2021, is guided by the principles of nondiscrimination, functional equivalence, technological neutrality, and the promotion of interoperability, which are the same general principles supporting UNCITRAL texts, including the MLETR. Therefore, CPTA provides a framework that paves the way for MLETR adoption.

The ASEAN community is contributing to the digital agenda and trade connectivity of the region through its intergovernmental initiatives and frameworks on e-commerce, data governance, and ASEAN Single Window, among many others. The ASEAN Business Advisory Council leads efforts to connect the digital trade platforms of member states with the objective of facilitating seamless trade flows between countries and their key trading partners.

## Trade financing for MSMEs

The fundamental issue of MSME's access to financing lies in their credit risk profile. Insufficient documentation and poor credit history are obstacles to risk assessment of MSMEs. Lack of collateral and costly due diligence are also factors that deter banks to provide financial support to small businesses.

Distributed ledger technology (e.g., blockchain) can help address these challenges by producing the necessary data for MSMEs. It provides a decentralized, distributed record of transactions, including credit history and commercial disputes, that are stored in a manner that all parties to the network can trust. Therefore, its data integrity could also streamline the approach to building a global digital identity for MSMEs.

ADB has a Trade and Supply Chain Finance Program that supports MSMEs, whose ability to trade is impeded by risk perceptions. The program fills market gaps for trade financing by providing guarantees and loans to banks. It works with more than 240 banks in 21 countries to provide companies with the financial support they need to engage in import and export in Asia's most challenging markets. Since 2009, the program has supported more than 33,000 transactions valued at \$47.5 billion.

## Global digital identity system

Vital for transacting in the modern economy, a digital identity enables participation in online markets and reduces the costs of supplier verification processes, which can be burdensome to MSMEs.

The Global Legal Entity Identifier Foundation (GLEIF), created by the Financial Stability Board, is a not-for-profit organization that supports the implementation and use of the Legal Entity Identifier (LEI) code, which can help address anti-money laundering and know-your-customer issues. Global and harmonized, the LEI code is a unique, electronic, 20-digit standard identifier for legal entities based on the International Organization for Standardization (ISO) 17442 standard. Global adoption of LEI can fuel growth in cross-border trade.

## Policy Implementation

In collaboration with the International Chamber of Commerce and other key stakeholders, Singapore's Infocomm Media Development Authority (IMDA) developed TradeTrust, an interoperability framework for the exchange of digital trade documentation.

Using distributed ledger technology, the TradeTrust framework provides participants with proof of authenticity and origin of documents, enabling a more seamless and efficient flow of goods between digitally interconnected trading partners. It can perform title transfer on trade documents electronically, which is pivotal in digitalizing paper-based processes for cross-border trade.

TradeTrust is currently organized along the following concurrent workstreams to give the network's participants trust and legal certainty regarding digital documents that are exchanged.

**Legal harmonization.** Singapore's Electronic Transactions Act was amended to align with the global standard based on the MLETR to provide legal certainty to electronic transaction, and legally recognize electronic negotiable instruments within the country's jurisdiction.

**Standards development.** Singapore has been actively driving and aligning TradeTrust with standards development at the United Nations Centre for Trade Facilitation and Electronic Business and the ISO.

**Software components.** TradeTrust provides freely available software components and tools under open-source licensing terms that are designed to make it easy for business applications to connect to blockchains to achieve three key functionalities: (i) assure authenticity of documents; (ii) assure provenance of documents; and (iii) provide legally valid performance obligation transfers between implementers of the framework.

In November 2020, a TradeTrust trial was launched by IMDA, Singapore Customs, and the Australian Border Force (ABF). Electronic certificates of origin were generated in accordance with the TradeTrust framework via the ABF-developed Intergovernmental Ledger (IGL) system and sent to commercial users participating in the trial, as well as Singapore Customs, for verification. Trial users were asked to give feedback on the multiple verification methods of the TradeTrust framework. This demonstration provided assurance on the authenticity and provenance of the files across two independent and unconnected systems (the IGL and the TradeTrust Reference Implementation), securing acceptance from regulatory authorities and businesses.

In Thailand, similar efforts are being pursued to boost trade digitalization. Leveraging blockchain technology, the National Digital Trade Platform (NDTP) is the country's central system for linking international digital trade data using international standards. The government aims to link the platform with the National Single Window and trade facilitation platforms of other ASEAN and major trade partners. In 2019, the Joint Standing Committee of Commerce, Industry and Banking of Thailand ran a trial of NTDP with participants across various industries. This demonstrated that document processing was faster by 60%.

Efforts on digitalization and paperless trade are also underway in other countries in Asia. Azerbaijan, Bangladesh, Iran, the People's Republic of China, and the Philippines have ratified ESCAP's CPTA, while Armenia and Cambodia have signed it. Other ESCAP member states are in the process of completing their domestic processes for accession.

## Recommendations

Pursue digitalization efforts in tandem with modernization of rules and regulations

Digitalization's multitude of benefits—from traceability to real-time tracking, faster clearance of shipments, prevention of fraud, and reduced compliance costs—cannot be fully realized without an

enabling domestic legal environment for electronic transferable records. Countries need to adopt the MLETR and accede to the CPTA, which is designed for member states at all levels of development and digitalization.

Other preconditions for digital markets to thrive include consumer protection policies and the cross-border flows of data that underpin e-trade transactions.

## Engage stakeholders in the trade ecosystem

An industry-wide collaboration that brings together the private and public sectors and other actors across the value chain is imperative to set the right mix of policies for this new paradigm of trade as well as ensure that the benefits are shared.

Strengthening supply chains through stakeholder dialogues should include discussions on lessons learned from the pandemic to minimize scope for future disruptions and to collectively leverage technologies in addressing the fragilities of trade systems and in future-proofing MSMEs, which are the lifeblood of many economies.

## Assess gaps and capacity building needs

As many Asian economies have varying capacities in cross-border paperless trade, they could benefit from ESCAP's Readiness Assessment Guide for Cross-Border Paperless Trade, which can help guide actions at national and agency levels in this area. Countries requiring technical assistance and advisory services on the CPTA could apply for ESCAP's Accession/Ratification Accelerator Programme.

Other policies, such as on consumer protection, data governance, and cybersecurity, are important in the digital economy, and therefore, countries also need to reflect on their capacity to design and administer effective regulatory and dispute resolution systems for these matters.

Capacity building for MSMEs should be considered to make them aware of the opportunities offered by digital solutions. Distributed ledger technology and other solutions can help MSMEs access more markets and financing.

## Undertake proof of concept and share success stories to secure buy-in

Countries are more inclined to adopt the necessary measures to enable paperless trade when they see examples of use cases and benefits. Participation in trials and other forms of collaboration can help governments and other stakeholders gain a better understanding of the frameworks and workings of technologies that facilitate digital trade. The experiences of Bahrain and Singapore in their adoption of MLETR may serve as models for other Asian countries in their digital transformation journey.

# Resources

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Oswald Kulyer

Digital Standards Initiative Managing Director, International Chamber of Commerce (ICC)

Mr. Kulyer promotes trade digitization through advocating policy coherence and harmonizing digital trading standards at the ICC.



Luca Castellani

Legal Officer, United Nations Commission on International Trade Law (UNCITRAL)

Mr. Castellani was the secretary of the UNCITRAL Working Group IV during the preparation of the UNCITRAL Model Law on Electronic Transferable Records. He has published several articles on various aspects of international commercial law.



### Sin Yong Loh

Director for Trade, Infocomm Media Development Authority of Singapore (IMDA)

Mr. Loh is responsible for transforming trade sectors using Infocomm Media technologies to enhance the sectors' competitiveness in the global market.



### Kobsak Duangdee

Secretary General, Thai Bankers' Association (TBA)

Mr. Duangdee has extensive experience in finance and banking from both local and international financial institutions.



### Asian Development Bank (ADB)

The Asian Development Bank is committed to achieving a prosperous, inclusive, resilient, and sustainable Asia and the Pacific, while sustaining its efforts to eradicate extreme poverty. Established in 1966, it is owned by 68 members—49 from the region.

Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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