

# TRADE POLICY BRIEFS

## TRADE & AGRICULTURE INNOVATION

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# TRADE FINANCE AND DIGITAL TECHNOLOGIES: FACILITATING ACCESS TO INTERNATIONAL MARKETS

### KEY MESSAGES

- Trade finance is an important determinant of international agri-food trade, and used to offset risk for exporters and importers related to product dispatch, delivery and payment.
- The low availability and high costs of trade finance limit access to markets by small-scale agricultural producers and traders, acting as a significant barrier to trade, economic growth and participation in global value chains.
- Digitalization and automation can reduce costs and better facilitate trade transactions by improving process efficiency, risk mitigation and access to working capital management in trade finance, increasing access to financing for small companies and the underbanked.

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### Introduction

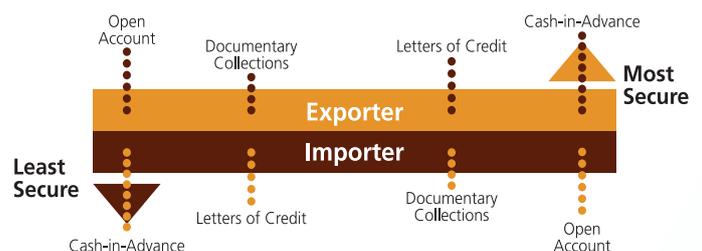
Access to international agricultural markets depends on numerous factors, including compliance with technical standards and procedures in importing country, product quality and food safety requirements, marketing, business relationships and access to finance. In international trade, there is substantial risk for traders between product dispatch, delivery and payment. Exporters typically want to receive payment when a purchase order is placed and before they ship the goods to the importer; while an importer typically wants to receive the goods before making payment. In order to win sales in a competitive global marketplace, exporters are challenged with providing attractive sales terms to their clients, while also minimizing payment risk. Trade finance helps businesses fund their operating costs and manage various payment related risks, whether commercial, exchange rate, transportation, or political.

Different payment methods in international transactions carry different risks for exporters and importers. Of the four main payment methods, letters of credit<sup>1</sup> or even cash-in-advance are the most secure forms for exporters, while open account is most secure for importers (figure 1). Competitive global markets often force exporters to accept the riskier open account payment method in order to win sales, requiring the goods to be delivered before

<sup>1</sup> A letter of credit is a guarantee of payment by the importer's bank to the exporter once the contractual conditions are met. It mitigates payment risk for exporters typically when they do business with a new or unknown foreign buyer. One of the conditions is presenting the buyer's bank and buyer with a bill of lading (typically sent by courier and in paper form), which is used to claim the shipment and release the payment.

payment. Open account trade represents approximately 80 percent of all trade (ICC, 2018). Trade finance is a key factor in facilitating access to international markets; however, small and medium-sized companies (SMEs) often lack the ability to obtain financing.

Figure 1: Payment risk



Source: United States Department of Commerce (USDC), 2008.

### Challenges in trade finance

The demand for trade finance is persistently greater than supply, leaving an annual global trade finance gap of about USD 1.4-1.6 trillion during the period of 2014-2018, which is equivalent to about 8-10 percent of world merchandise trade (Asian Development Bank [ADB] and United Nations Economic and Social Commission for Asia and the Pacific [ESCAP], 2019). The problem is that many SMEs, particularly in developing countries, have trouble accessing trade finance, affecting their ability to access international markets. SMEs tend to have higher rejection rates of trade finance applications than larger firms, since banks have higher transaction and information costs when serving smaller companies (ADB & ESCAP, 2019). When

trade finance is available, its high costs make it unprofitable for SMEs to use such instruments as letters of credit and even open account arrangements. In effect, low availability and high costs limit access to trade finance for small-scale agricultural producers, processors and traders, acting as a significant barrier to trade, economic growth and participation in global value chains.

High inefficiencies in trade finance contribute to the persistent gap in financing. The use of paper documents and manual processes for processing and handling documents in trade finance transactions are major contributors to the high costs, lengthy-payment terms, delays, human error and even fraud. The complexity of coordinating a transaction through paper-based manual processes results in duplicated information and redundant document examination. One international trade transaction can include approximately 20 different entities, 100 pages of documentation in 10-20 documents and 5,000 data field interactions (BCG, 2017). In addition, financial institutions conduct significant due diligence to comply with regulatory requirements<sup>2</sup>, which raise the costs of supplying trade finance. Lastly, risk assessment requires lenders to have adequate knowledge of their clients to mitigate information asymmetry. Information asymmetry requirements can pose hurdles for SMEs to access finance (ADB & ESCAP, 2019).

## The potential role of digital technology in trade finance

Digitalization and automation can address these core problems and facilitate more efficient and accessible trade finance. By eliminating paper-based manual processes, digital technologies can help reduce costs through digital trade documents and automated processes. Distributed ledger technology (DLT) provides a single ledger for all parties in a trade transaction to exchange trade information digitally and record an immutable transaction history. Smart contracts can be used with DLT to auto-execute contracts and the settlement of payments in real-time. This allows all parties to facilitate international trade in a single, simple and secure platform, enabling faster transactions with less error. For example, 'we.trade' is a "one-stop-shop" open account trading platform, built on IBM's Hyperledger Fabric blockchain, which offers exporters and importers a simple user-interface to easily create trade orders online, manage the entire trade process from order to payment and select banking products, settlement conditions and payment terms. The platform is fully automated and guarantees payments when all contractual agreements are met (we.trade, 2019).

DLT is also used for digitalizing the process for letters of credit. For example, Project Voltron's blockchain platform for letters of credit, built on R3 Corda, was utilized by HSBC and ING to facilitate a live trade finance transaction for Cargill to send a cargo of soybeans from Argentina to Malaysia, reducing the processing time for issuing a letter of credit from 5-10 days to 24 hours (Berminham, 2018). The improvements in process efficiency not only reduce costs, but also can shorten the length of payment-terms, which can reduce counterparty risk, increase cash flow and free up working capital for farmers and traders. DLT has been estimated to reduce the operating

costs in trade finance by 60-80 percent (Olsen *et al.*, 2018).

In addition to process efficiency and managing working capital, DLT and artificial intelligence provide advantages for risk mitigation. DLT provides real-time visibility to verified trade data and enables the convergence of data throughout the supply chain (R3, 2019), which increases the data available to assess risk. In addition, artificial intelligence and machine learning can transform nonfinancial transaction records into useful information to help determine whether to approve loans, reducing risk management costs (ADB & ESCAP, 2019). Machine learning can also be used for screening digital documents for consistency and compliance, thereby auto-detecting and auto-correcting errors in trade documents such as bills of lading and packing lists (ADB & ESCAP, 2019). By building a verifiable track record to assess risks and through advanced data analytics, lenders may have a greater ability to provide financing to SMEs in a more cost-effective manner. These digital technologies can reduce risks and compliance costs, enabling lenders to better assess risks based on the accumulated digital information on SMEs.

## What needs to be done:

- 1 Strengthen the knowledge base of the private sector, in particular SMEs and other underbanked companies, on the available methods and digital tools that can be utilized to mitigate payment risk in international trade.
- 2 Promote stakeholder coordination to develop infrastructure, regulation and standards for the adoption and implementation of digital technologies in trade finance.
- 3 Establish an enabling environment that reduces barriers for SMEs to access trade finance and promote the adoption of digital technologies.

## References

- ADB.** 2019. *Trade Finance Gaps, Growth, and Jobs Survey*. Manila, Philippines.
- ADB & ESCAP.** 2019. *Asia-Pacific Trade Facilitation Report 2019: Bridging Trade Finance Gaps through Technology*. Asian Development Bank. United Nations Economic and Social Commission for Asia and the Pacific.
- Bermingham, F.** 2018. *HSBC and ING Complete Live Trade Finance Transaction on Blockchain*. *Global Trade Review*, 14 May. <https://www.gtreview.com/news/fintech/hsbc-and-ing-in-live-trade-finance-transaction-on-blockchain/>
- Boston Consulting Group (BCG).** 2017. *Digital Innovation in Trade Finance: Have We Reached a Tipping Point?* BCG. <https://www.swift.com/news-events/news/digital-innovation-in-trade-finance-have-we-reached-a-tipping-point>
- ICC.** 2018. *Global Trade-Securing Future Growth*. ICC Global Survey on Trade Finance.
- Olsen, T., Di Marzo, A., Ganesh, S. & M. Baxter.** 2018. *Wolf in Sheep's Clothing: Disruption Ahead for Transaction Banking*. Bain & Company.
- R3.** 2019. *Trade Finance Market Report*. <https://www.r3.com/reports/trade-finance-market-report/>
- United States Department of Commerce (USDC).** 2018. *Trade Finance Guide: A Quick Reference for U.S. Exporters*.
- we.trade.** 2019. *The platform we.trade*. <https://we-trade.com/>

<sup>2</sup> Regulatory compliance for banks is related to preventing clients or counterparties from fraud and losses under Know-Your-Customer regulations, Anti-Money-Laundering and financing of terrorism (ADB & ESCAP, 2019).