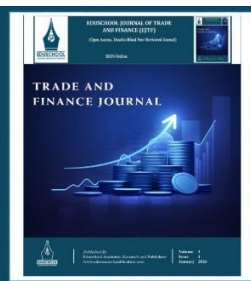


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Bridging the Global Trade Finance Gap: Structural Causes, Real Economic Effects, and the Promise of Digitalisation

Vidya Shetty

Researcher, Mangalore, Karnataka, India.

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Abstract

Trade finance underpins the great majority of world merchandise trade, yet a large and persistent share of demand for it goes unmet. The Asian Development Bank estimates the global trade finance gap at roughly US\$2.5 trillion, with small and medium-sized enterprises (SMEs) and firms in developing economies bearing the heaviest burden. This paper provides a structured review of the trade finance gap, organised around three questions: what drives it, what are its real economic consequences, and which interventions show promise in closing it. Synthesising peer-reviewed empirical research with institutional survey evidence, the review documents the trajectory and distribution of the gap, traces its structural causes to information asymmetries, compliance and prudential costs, paper-based operations, and currency-liquidity constraints, and links the resulting credit rationing to measurable losses in export entry, export volumes, and crisis resilience at the firm level. It then evaluates four pathways to closing the gap (legal and technical digitalisation, financial-technology and supply-chain-finance innovation, multilateral and development-bank programmes, and proportionate regulatory recalibration), paying particular attention to the adoption of electronic transferable records. The review concludes that the gap is less a problem of scarce capital than of frictions in information, law, and process, and sets out an agenda for future research, including improved measurement of the gap and rigorous impact evaluation of digital-trade reforms.

Keywords: - Trade Finance, Trade Finance Gap, SME Access To Finance, Credit Constraints And Exports, Trade Digitalisation, Electronic Transferable Records, Supply Chain Finance.

I. INTRODUCTION

By common estimate, some form of credit, guarantee, or payment intermediation supports around four-fifths of world merchandise trade, making trade finance one of the least visible but most load-bearing components of the international economy (ADB, 2025). When a seller in one jurisdiction ships goods to a buyer in another, the two sides face a fundamental timing and trust problem: the exporter wishes to be paid before or upon shipment, while the importer prefers to pay only after receiving conforming goods. Instruments such as letters of credit, documentary collections, bank guarantees, and increasingly open-account supply chain finance exist to bridge that gap, allocating risk and providing working capital across the life of a cross-border transaction.

Despite this central role, a large share of the demand for trade finance is never met. The Asian Development Bank's most recent Global Trade Finance Gap Survey estimates the gap (the difference between requested and supplied trade finance) at approximately US\$2.5 trillion, where it has remained since 2022 (ADB, 2025). Set against global merchandise trade of roughly US\$33 trillion in 2024 (UNCTAD, 2025), a shortfall of this magnitude represents a substantial and recurring drag on commerce, growth, and employment. The burden is not evenly shared. SMEs and firms in developing economies are rationed most severely: institutional surveys have repeatedly found rejection rates for SME applications far above those for large multinational corporates (ADB, 2016; WTO, 2016).

What makes the gap analytically interesting is that it cannot be explained by credit losses alone. Industry loss data indicate that default rates on short-term international trade credit are very low, on the order of a fraction of one per cent (ICC, 2013). A market in which a low-risk, self-liquidating asset class is nonetheless heavily rationed is, on its face, a puzzle. It suggests that the binding constraints lie less in the underlying economics of repayment than in frictions of information, regulation, and process: frictions that fall hardest on precisely those firms with the thinnest credit histories and the weakest bargaining power.

This paper offers a structured review of the trade finance gap built around three research questions. First, what are the structural drivers of the gap (RQ1)? Second, what are its real economic effects on firms and economies (RQ2)? Third, which interventions show genuine promise in closing it (RQ3)? In addressing these questions the review draws together two literatures that are too often kept apart: the rigorous, firm-level empirical economics of credit constraints and trade, and the practitioner and institutional evidence produced by development banks, the World Trade Organization, and the International Chamber of Commerce. The contribution is integrative rather than empirical in the primary-data sense: the paper does not estimate new parameters but organises and reconciles existing evidence into a coherent causes–effects–solutions framework, and uses that framework to identify where the evidence is strong, where it is thin, and where future research is most needed.

The remainder of the paper is organised as follows. Section 2 sets out a conceptual framework explaining why finance matters for trade and how the gap is defined and measured. Section 3 describes the review's scope and method. Section 4 documents the magnitude and distribution of the gap. Section 5 analyses its structural causes, and Section 6 reviews the evidence on its real economic effects. Section 7 evaluates four pathways to closing the gap, with particular attention to digitalisation. Section 8 sets out research gaps and a forward agenda, and Section 9 concludes.

II. CONCEPTUAL FRAMEWORK: WHY FINANCE MATTERS FOR TRADE

2.1. Instruments of Trade Finance

Trade finance is best understood not as a single product but as a family of arrangements that manage the payment, performance, and financing risks inherent in cross-border exchange. At one end of a risk spectrum sits cash-in-advance, which protects the exporter entirely at the importer's expense; at the other sits open account, where goods are shipped and delivered before payment is due, protecting the importer. Between these poles lie the classic bank-intermediated instruments. The documentary letter of credit substitutes the creditworthiness of a bank for that of the buyer, with payment conditional on the presentation of conforming documents. Documentary collections use the banking system to exchange shipping documents for payment without a bank guarantee of payment. Bank guarantees and standby letters of credit backstop performance. More recently, supply chain finance (including reverse factoring, in which a buyer's stronger credit standing is used to mobilise early payment to its suppliers) has expanded rapidly, channelling liquidity toward lower-tier and smaller firms in a value chain (ADB, 2025).

2.2. Theoretical Channels Linking Finance and Trade

Why should access to finance matter more for international than for purely domestic transactions? Cross-border trade involves longer shipping times, greater distances, additional documentation, and weaker contract enforcement, all of which lengthen the interval between production outlays and final receipt of revenue. Exporters therefore require more working capital, and bear more risk, than otherwise comparable domestic producers. This intuition is the foundation of a substantial body of theory and evidence on credit constraints and trade. Manova (2013) formalises how credit constraints interact with firm heterogeneity, showing that financial frictions depress trade both by deterring otherwise productive firms from entering export markets (the extensive margin) and by limiting the scale of those that do export (the intensive margin), with the largest effects in sectors most dependent on external finance, a vulnerability measured in the tradition of Rajan and Zingales (1998).

The empirical literature has established that these channels are causal rather than merely correlational. Using matched firm–bank data for Japan, Amiti and Weinstein (2011) show that the health of a firm's banks affects its exports more than its domestic sales, isolating a trade-finance channel distinct from generic external-finance dependence. Studies of the global financial crisis reinforce the point: Chor and Manova (2012) find that economies with tighter and more expensive credit exported less to the United States during 2008–2009, and Bricongne et al. (2012) show that French exporters in more finance-dependent sectors contracted most sharply. Using matched credit-and-export data, Paravisini et al. (2015) trace how shocks to the supply of bank credit pass through to reductions in exports. Taken together, this work converts the practitioner claim that trade finance is essential into a measurable economic relationship: when finance contracts, trade contracts with it.

2.3. Defining and Measuring the Gap

The trade finance gap is conventionally defined as the value of requested trade finance that is proposed and subsequently rejected: unmet demand from firms that sought financing and were turned down. This definition, used by the principal institutional surveys, is informative but imperfect. It captures rejected applications but not discouraged borrowers who never apply; African Development Bank research, for example, finds that a meaningful share of SMEs do not apply at all for fear of rejection, high collateral requirements, or unfamiliarity with the process (ADB, 2025). The gap is also a survey-based estimate extrapolated from a sample of providers rather than a directly observed market total, which means its level should be read as an order of magnitude rather than a precise figure. Section 4 returns to these measurement issues when interpreting the trend data.

III. REVIEW APPROACH

This paper is a structured narrative review rather than a systematic review or meta-analysis: it does not pool effect sizes statistically, but it follows an explicit and reproducible logic of question definition, source selection, and thematic synthesis.

Three research questions frame the review. RQ1 concerns the structural causes of the gap; RQ2 concerns its real economic effects on firms and economies; and RQ3 concerns the interventions that show promise in closing it.

Two complementary bodies of evidence are drawn upon. The first is the peer-reviewed economics literature on credit constraints and international trade, selected for its methodological rigour in establishing causal links between finance and trade outcomes. The second is institutional and practitioner evidence (principally the periodic gap surveys of the Asian Development Bank, analyses by the World Trade Organization, and data and standards work by the International Chamber of Commerce and UNCITRAL), selected for its direct measurement of market-level quantities that academic datasets rarely capture. Sources were included where they spoke directly to one of the three research questions and where their findings could be corroborated across more than one independent source; figures reported by a single commercial source were treated as indicative only. The evidence is then organised into the causes–effects–solutions structure that shapes Sections 5 through 7. Because the institutional estimates are survey-based and the academic studies span different countries and periods, the synthesis emphasises the direction and robustness of findings over point estimates.

IV. THE MAGNITUDE AND DISTRIBUTION OF THE GAP

The estimated global trade finance gap has widened markedly over the past decade. Successive Asian Development Bank surveys placed it at around US\$1.4 trillion in 2014 and US\$1.6 trillion in 2015, rising to US\$1.5 trillion in 2018 and US\$1.7 trillion in 2020 before jumping to US\$2.5 trillion in 2022, an increase widely attributed to the combined shocks of the pandemic, the war in Ukraine, and sharply higher interest rates (ADB, 2016; ADB, 2025). The most recent survey finds the gap has stabilised at that elevated level, though the bank cautions that its underlying data were collected before the most recent round of tariff and trade-policy disruption and may understate emerging pressures (ADB, 2025). Table 1 summarises the trajectory.

Table 1. Estimated global trade finance gap over time

Reference Year	Estimated Gap (US\$)	Context
2014	≈ 1.4 trillion	Early survey baseline
2015	≈ 1.6 trillion	Developing Asia share ≈ US\$692 billion
2018	≈ 1.5 trillion	Pre-pandemic
2020	≈ 1.7 trillion	Onset of pandemic disruption
2022	≈ 2.5 trillion	Pandemic, war, higher interest rates
2023–2025	≈ 2.5 trillion	Stabilised; demand expected to rise

Source: compiled from Asian Development Bank Global Trade Finance Gap Surveys (ADB, 2016; ADB, 2025). Figures are survey-based estimates and should be read as orders of magnitude.

The distribution of the gap is as important as its level. The shortfall is concentrated among SMEs and in developing economies. Earlier surveys reported that a majority of SME applications were rejected: an Asian Development Bank brief put the SME rejection rate at 57 per cent against 10 per cent for multinational corporations, while the World Trade Organization similarly found roughly half of SME applications turned down compared with a single-digit rate for large firms (ADB, 2016; WTO, 2016). The most recent survey reports a notable narrowing: the SME rejection rate fell to about 41 per cent, close to the 40 per cent recorded for large and mid-cap corporates, a convergence the bank attributes partly to the spread of dedicated SME strategies and pre-shipment financing among banks, while cautioning that the result requires further study (ADB, 2025). Table 2 sets out these figures.

Table 2. Trade finance rejection rates by firm type, selected surveys

Survey	SME Rejection Rate	Large / Multinational
ADB (2016, ref. 2015)	≈ 57%	≈ 10%
WTO (2016)	≈ 50%	≈ 7%
ADB (2023)	≈ 45%	n.a.
ADB (2025)	≈ 41%	≈ 40%

Source: compiled from ADB (2016), WTO (2016), and ADB (2025). Definitions and samples differ across surveys; figures are not strictly comparable and indicate broad orders of magnitude.

Two caveats temper an optimistic reading of the recent convergence. First, because the gap is measured from rejected applications, improvements in reported rejection rates may partly reflect changes in who applies rather than in underlying access. Second, the same survey reports that the binding constraint on supply has shifted: the most cited obstacle is now US-dollar liquidity, alongside high capital charges and policy uncertainty, with the large majority of surveyed banks expecting demand for trade finance to rise as firms diversify suppliers and reconfigure supply chains (ADB, 2025). A stable headline gap can therefore coexist with intensifying pressure beneath the surface.

V. STRUCTURAL CAUSES OF THE GAP

5.1. Information Asymmetry and the Perception of Credit Risk

The most frequently cited reason for rejection is informational. A large share of declined applications are turned away on grounds of perceived credit risk or insufficient information rather than realised default, and SMEs are disadvantaged precisely because they have shorter credit histories, less collateral, smaller and less standardised financial records, and weaker

name recognition than large corporates (ADB, 2025). The low realised default rates on short-term trade credit (ICC, 2013) suggest that much of this risk perception is a problem of information rather than of fundamentals: banks cannot cheaply verify the quality of a small unfamiliar borrower, and in the presence of fixed assessment costs it is rational to decline small tickets. The result is a classic adverse-selection-driven rationing of creditworthy but informationally opaque firms.

5.2. Compliance and Prudential Costs

Regulation compounds the information problem. Anti-money-laundering and know-your-customer obligations impose substantial fixed costs on the on-boarding and monitoring of trade counterparties, and surveys have consistently found these requirements to be a leading impediment to expanding trade finance, particularly to smaller firms whose transactions are too small to amortise the compliance burden (ADB, 2016). Prudential capital and liquidity rules add a further layer: by raising the capital and stable-funding that banks must hold against trade exposures, post-crisis frameworks can make low-margin SME trade finance comparatively unattractive relative to other uses of bank balance sheets, even when the underlying assets are short-dated and low-loss. The cumulative effect is that the economics of compliance and capital, rather than the economics of repayment, often determine whether a small exporter is financed.

5.3. Paper-Based Processes and Operational Cost

Trade finance remains strikingly analogue. The International Chamber of Commerce has estimated that roughly four billion pages of documents circulate in documentary trade each year, and that digitisation could cut trade finance costs by up to US\$6 billion and raise banks' trade finance revenues by around ten per cent over a three-to-five-year horizon (ICC, 2018). Manual processing of bills of lading, invoices, certificates, and letters of credit is slow, error-prone, and expensive, and it raises the risk of fraud and document duplication. These operational costs again fall disproportionately on small transactions, where the fixed cost of processing is large relative to the value financed, reinforcing the bias against SMEs identified above.

5.4. Currency Liquidity and Macroeconomic Uncertainty

Finally, the supply of trade finance is sensitive to macro-financial conditions. The most recent survey identifies US-dollar liquidity as the single biggest obstacle to expanding supply, reflecting the dollar's dominant role in trade invoicing and settlement; when dollar funding tightens, banks ration trade exposures, often in the markets and to the firms least able to absorb the shortfall (ADB, 2025). Policy uncertainty (including shifts in tariffs and the reconfiguration of supply chains) adds risk premia and can deter banks from extending or renewing facilities. These channels explain why the gap is procyclical and why it widened so sharply amid the overlapping shocks of the early 2020s.

VI. REAL ECONOMIC EFFECTS

The structural frictions described above are not merely administrative inconveniences; they translate into measurable losses in trade, growth, and resilience. The firm-level evidence is the most rigorous. Because trade finance bears more directly on exporting than on domestic sales, shocks to financial intermediaries pass through to trade with unusual force. Amiti and Weinstein (2011) show that deterioration in the health of a firm's banks reduces its exports disproportionately, and Paravisini et al. (2015) demonstrate that contractions in the supply of bank credit reduce export volumes through a credit channel that is distinct from demand. The implication is that a firm rationed out of trade finance does not simply substitute another source of funding at a slightly higher price; it exports less, or not at all.

These effects are amplified in crises. The collapse of world trade in 2008–2009 was far larger than the contraction in output, and a body of research attributes part of this amplification to the seizing-up of trade credit. Chor and Manova (2012) find that economies facing tighter and costlier credit exported less during the crisis, and that the contraction was concentrated in sectors most dependent on external finance; Bricongne et al. (2012) document the same pattern among French exporters. The crisis evidence is valuable precisely because it provides plausibly exogenous variation in credit conditions, strengthening the causal interpretation of the finance–trade link.

At the level of economies, the consequences are framed in terms of foregone growth and employment. Institutional analyses consistently argue that the inability to finance willing buyers and sellers suppresses trade-driven growth and job creation, with the heaviest costs borne by developing economies whose firms are most likely to be rationed (ADB, 2025). When formal trade finance is unavailable, firms turn to slower or more expensive informal arrangements, or forgo transactions altogether, an inefficiency that compounds over time as rationed firms fail to build the trading track record that would eventually ease their access to credit. In this sense the gap is partly self-perpetuating: exclusion today produces the thin credit histories that justify exclusion tomorrow.

VII. PATHWAYS TO CLOSING THE GAP

If the gap is driven less by scarce capital than by frictions in information, law, and process, then the most promising interventions are those that attack those frictions directly. Four pathways stand out.

7.1. Legal and Technical Digitalisation

The most structural reform is to make trade documents digital and legally enforceable across borders. The central instrument is UNCITRAL's Model Law on Electronic Transferable Records (MLETR), adopted in 2017, which establishes the legal equivalence of electronic and paper transferable documents such as bills of lading, warehouse receipts, and bills of exchange (UNCITRAL, 2017). Without such a framework, an electronic bill of lading lacks the legal status of its paper counterpart, and the documentary chain cannot be fully digitised. Momentum has built since the G7 endorsed the principles of digital trade documents, and the United Kingdom's Electronic Trade Documents Act (which took effect in 2023 and implements MLETR principles) has served as a template for other jurisdictions (ADB, 2025). The International Chamber of Commerce's

Digital Standards Initiative has promoted adoption and common data standards, and reform is now advancing in emerging markets, including India, where a Digital Trade Facilitation Bill aligned with MLETR principles has been brought forward (ICC, 2024). The prize is large: alongside the direct cost savings estimated by the ICC, end-to-end digitisation shifts trade finance from a document-centric to a data-centric process, which in turn enables the credit-assessment innovations discussed next.

7.2. Financial Technology, Alternative Data, and Supply Chain Finance

Digitisation of the underlying transaction makes it possible to assess credit on the basis of transaction-level behaviour (payment history, shipping reliability, and fulfilment data) rather than traditional collateral and audited statements. This is especially valuable for SMEs and informal traders that fail conventional credit screens despite being good risks, and it is the logic behind the rapid growth of supply chain finance, which uses the stronger credit standing of an anchor buyer to mobilise liquidity to its smaller suppliers (ADB, 2025). A persistent obstacle, however, is awareness: surveys have found that a large majority of smaller firms are unfamiliar with digital finance tools, although among those that are familiar, peer-to-peer lending has seen relatively strong uptake in developing economies (ADB, 2016). Closing the gap through technology therefore requires investment in firm-level capability and trust as much as in platforms.

7.3. Multilateral and Development-Finance Programmes

Where private supply is structurally deficient, multilateral and development-finance institutions can fill part of the gap and crowd in commercial lenders by absorbing risk. The Asian Development Bank's long-running Trade Finance Program reports having supported thousands of SMEs and many thousands of transactions across the region since 2009 (ADB, 2025). Public-private facilities can extend reach further: development institutions partnering with commercial banks have launched dedicated facilities aimed at exporters in emerging markets. Such interventions are best understood not as a permanent substitute for private finance but as a means of building track records and demonstrating the low realised risk of trade exposures, thereby gradually drawing private capital into segments it had avoided.

7.4. Proportionate Regulatory Recalibration

Finally, regulators can narrow the gap by aligning prudential and compliance requirements more closely with the demonstrated risk profile of trade finance. Because realised default rates on short-term trade credit are very low (ICC, 2013), there is a case for proportionate treatment of trade exposures in capital and liquidity rules and for risk-based, digitally enabled approaches to anti-money-laundering and know-your-customer compliance that lower the fixed cost of on-boarding small counterparties. The objective is not to weaken safeguards but to ensure that the cost of compliance is commensurate with the risk being managed, so that low-risk small-firm trade is not priced out by requirements calibrated to higher-risk activity.

VIII. RESEARCH GAPS AND A FUTURE AGENDA

Four gaps in the evidence base stand out and define a forward research agenda. First, measurement of the gap remains crude. The headline figure is a survey-based estimate of rejected demand that omits discouraged borrowers and rests on extrapolation from a sample of providers; developing better-grounded, more frequent, and more granular measures (ideally combining supervisory data with firm surveys) would materially improve both diagnosis and evaluation. Second, while the causal effect of credit on trade is well established for advanced economies and crisis episodes, far less rigorous firm-level evidence exists for SMEs in developing economies during normal times, which is precisely the population where the gap is concentrated; matched credit-and-trade datasets in these settings would be especially valuable. Third, the rapid wave of digital-trade legal reform creates an opportunity for credible impact evaluation: as jurisdictions adopt MLETR-aligned legislation at different times, researchers can exploit this staggered roll-out to estimate the effect of legal digitalisation on trade finance availability, costs, and SME participation. Fourth, the interaction between supply chain finance, alternative-data credit assessment, and financial inclusion is under-studied, as is the relationship between trade digitalisation and environmental and governance objectives that practitioners increasingly emphasise.

IX. CONCLUSION

The global trade finance gap is large, persistent, and unequally distributed, falling most heavily on the small and developing-economy firms whose participation in trade matters most for inclusive growth. Yet the central lesson of the evidence reviewed here is that the gap is not primarily a shortage of capital chasing a risky asset. Realised losses on short-term trade credit are low; the binding constraints lie in information asymmetries, the fixed costs of compliance and prudential capital, the inefficiency of paper-based processes, and the procyclical scarcity of dollar liquidity. Because the frictions are informational, legal, and operational, so are the most promising remedies: legally enforceable digital trade documents, data-driven credit assessment and supply chain finance, well-targeted multilateral programmes, and proportionate regulation. The firm-level economics establishes what is at stake (when finance contracts, trade contracts with it), while the institutional evidence shows where intervention can bite. Translating that understanding into measurable reductions in the gap will require not only continued reform but also better measurement and rigorous evaluation, so that the substantial investments now being made in digital trade can be judged by their effects on the firms that the gap currently leaves behind.

REFERENCES

- Ahn, J., Amity, M., & Weinstein, D. E. (2011). Trade finance and the great trade collapse. *American Economic Review*, 101(3), 298–302.
- Amity, M., & Weinstein, D. E. (2011). Exports and financial shocks. *The Quarterly Journal of Economics*, 126(4), 1841–1877.
- Asian Development Bank. (2016). *2016 trade finance gaps, growth, and jobs survey* (ADB Brief). Asian Development Bank.
- Asian Development Bank. (2025). *2025 global trade finance gap survey* (ADB Brief). Asian Development Bank.

- Bricongne, J.-C., Fontagné, L., Gaulier, G., Taglioni, D., & Vicard, V. (2012). Firms and the global crisis: French exports in the turmoil. *Journal of International Economics*, 87(1), 134–146.
- Chor, D., & Manova, K. (2012). Off the cliff and back? Credit conditions and international trade during the global financial crisis. *Journal of International Economics*, 87(1), 117–133.
- International Chamber of Commerce. (2013). *ICC trade register report*. International Chamber of Commerce, Banking Commission.
- International Chamber of Commerce. (2018). *Global survey on trade finance*. International Chamber of Commerce.
- International Chamber of Commerce. (2024). *Digital Standards Initiative: Work on electronic transferable records*. ICC Digital Standards Initiative.
- Manova, K. (2013). Credit constraints, heterogeneous firms, and international trade. *The Review of Economic Studies*, 80(2), 711–744. <https://doi.org/10.1093/restud/rds036>
- Paravisini, D., Rappoport, V., Schnabl, P., & Wolfenzon, D. (2015). Dissecting the effect of credit supply on trade: Evidence from matched credit-export data. *The Review of Economic Studies*, 82(1), 333–359. <https://doi.org/10.1093/restud/rdu030>
- Rajan, R. G., & Zingales, L. (1998). Financial dependence and growth. *American Economic Review*, 88(3), 559–586.
- United Nations Commission on International Trade Law. (2017). *Model law on electronic transferable records*. United Nations.
- United Nations Conference on Trade and Development. (2025). *Global trade update*. United Nations Conference on Trade and Development.
- World Trade Organization. (2016). *Trade finance and SMEs: Bridging the gaps in provision*. World Trade Organization.