POLICY BRIEF

Closing the $5 Trillion MSME Financing Gap through Registering Digital Assets

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Trade and Investment

Abstract

Micro, small, and medium enterprises (MSMEs) face a long list of challenges, including limited financial resources, non-interoperable platforms, and complex regulatory requirements. We highlight the potential for digital asset and public registries to be a transformative force in unlocking growth in the global economy. Digitally verified data facilitates more inclusive and efficient financial systems by enhancing trust among global funders and reducing barriers to MSME growth. Globally recognised, open-source organisational identity frameworks can enhance MSME data governance and verification, facilitating seamless integration into global trade and financial systems.

By participating in a data network[1] such as the Finternet,[2] MSMEs can share relevant data in a consent-based, cybersecure mode. Consent facilitated through intuitive interfaces and adaptive experience journeys with 'Just-in-Time' digital and financial literacy learning networks, like Digital4SMEs,[3] enhance effective entrepreneurial capacity building.

With cross-verification of MSME data in vertical supply chains, financing decisions, particularly for short-term supply chain financing, can be automated and substantially derisked, reducing the $5 trillion global financing gap. The use of alternative data stands to lower default risks for lenders to 1%,[4] reducing the cost of finance. Countries introducing Central Bank Digital Currencies, which enable low-cost and efficient transactions, have the potential to accelerate national MSME financing and job growth.

Keywords: MSMEs, Digital Assets, Financial Inclusion, Data Governance, Central Bank Digital Currencies

[1] Stein J, Fung M., Bitange Ndemo, Flynn S., 25 Sept 2023, Enhancing Global SME Financing through Prosperity Data Networks: An Integration of Hayek's and Sen's Economic Insights in the Digital Age, https://smefinanceforum.org/post/enhancing-global-sme-financing-through-prosperity-data-networks-an-integration-of-hayeks-and

[2] Carstens A, Nilekani N., 15 April 2024, Finternet: the financial system for the future, https://www.bis.org/publ/work1178.htm

[3] OECD Digital for SMEs Global Initiative, accessed on 1 April 2025, https://www.oecd.org/en/networks/oecd-digital-for-smes-global-initiative.html

[4] Fung, M, Flynn, S., 2021, Getting it Right. From the Get-Go: Establishing a Global Public Utility for SME Financing and. Investment, https://www.ifla.org/wp-content/uploads/ifla-trend-report-2024.pdf

Diagnosis

Modern, proven technologies for an age-old problem

Micro, small, and medium enterprises (MSMEs) are critical to global economic growth yet face significant financing gaps. Despite possessing valuable assets (eg, immovable and movable assets, data, invoices), MSMEs lack access to standardised digital trust infrastructure, limiting their access to formal credit. Interoperable Digital Public Infrastructure (DPI)[5] for MSME data sharing emerges as a transformative solution.

A DPI framework enables secure and consent-based protocols, enabling sharing of attested information across financial institutions, credit bureaus, and MSMEs within each country, creating a foundation for inclusive, efficient credit ecosystems. By integrating different datasets and physical infrastructure, the G20 may extend benefits observed from the implementation of open finance.

India's Unified Lending Interface (ULI)[6] demonstrated how a well-designed DPI can revolutionise access to credit for MSMEs. By creating a standardised open application programming interfaces platform integrated with foundational services, ULI facilitated data sharing among providers, eliminating the need for bespoke integrations. This reduced transaction costs, improved credit assessment accuracy, and expanded financial inclusion. Over 750 000 loans amounting to $4 billion in credit have been disbursed through ULI.

Local solutions, like ULI, have improved access to finance and applied technologies in emerging economies to achieve this. The imperative is to extend

[5] Report of India's G20 Task Force on Digital Public Infrastructure, accessed on 1 April 2025, https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2033389 https://dea.gov.in/sites/default/files/Report%20of%20Indias%20G20%20Task%20Force%20On%20Digital%20Public%20Infrastructure.pdf

[6] PWC, Unified Lending Interface (ULI), Changing the credit landscape in India, December 2024, https://www.pwc.in/assets/pdfs/unified-lending-interface.pdf

these into global systems, respecting the needs of each community to achieve transnational economic growth. Interoperability allows MSMEs to share data across borders, facilitating cross-border lending by reducing information asymmetry, supporting the growth of global supply chains and financing. This global connectivity would unlock new growth opportunities for MSMEs and requires global trusted identifiers such as the work of the G20 and Financial Stability Board's Global Legal Entity Identifier Foundation.

Project Aperta[7] aims to achieve similar global infrastructure by connecting domestic open finance ecosystems. Cross-border payments capabilities are improved by an interoperable approach such as the Finternet, in contrast to localised DPI for Instant Payment Services.[8] Standardising technical frameworks, data formats, and application programming interfaces is critical to ensuring that different national systems can communicate effectively. Establishing common governance principles such as data sovereignty, privacy protections, and regulatory compliance will align global standards while respecting local legal and cultural contexts.

Countries with asset digitisation programmes should expand these to include trade receivables, carbon credits, immovable property and other assets. Tools like tokenisation and distributed ledger technology (DLT) offer greater traceability, 24x7 market infrastructure and composability to meet diverse regulatory and governance requirements. These representations of real-world value benefit from verifications and credentials being stored within the digital container of the asset, allowing for real-time transfer of ownership with mitigated credit risk exposures, lowering transaction costs.

[7] BIS, 16 Oct 2024, Project Aperta: enabling cross-border data portability through open finance interoperability, https://www.bis.org/about/bisih/topics/open_finance/aperta.htm

[8] A Dual Strategy to Transform Cross-Border Payments by Bill Dudley, Bretton Woods Committee, December 2024, last accessed on 5 April 2025 https://www.brettonwoods.org/sites/default/files/documents/ADualStrategytoTransformCrossBorderPaymentsMRWG.pdf

Bundling trade and transaction information into packages of semi-fungible tokens and smart contracts allows digital currencies to record transactions in a registry, offering traceability and transparency. A DLT-based trust platform that utilises digitised assets, universal trusted credentials and standardised smart contracts could efficiently facilitate end-to-end payments between MSMEs domestically and across borders. Documentation requirements and supply chain financing could be improved through real-time transparency and phased, pre-agreed payments coded into smart contracts. Liquidity constraints would ease, resulting in more effective working capital management. Interoperability and scalability between DLT platforms and traditional financial infrastructures maintains the role of incumbent service providers. The larger the participation on the platform, the deeper the liquidity pool to ensure seamless payments between MSMEs.

Such a platform would be overseen by regulators and could be guaranteed. Combining automated digital currency payments with digitised trade financing methods for MSMEs has been demonstrated by the BIS Innovation Hub Hong Kong's Project Dynamo[9], and by Project DESFT[10] led by the Monetary Authority of Singapore and the Bank of Ghana in collaboration with service providers.

The establishment of Digital Asset Registries (DAR), akin to traditional land registries, is a priority. Here, owners of tokens representing real-world value are identified via smart contract powered tokens or directly in a ledger-based registry. Token identifiers registered on the DAR support discoverability and accountability, lowering transaction risks. Identification information may be treated as assets and offered through affordably accessed verified-identifier packages, controlled by

[9] BIS, June 2023, Project Dynamo: Catalysing innovation for SME growth, Project Dynamo: Catalysing innovation for SME growth

[10] Bank of Ghana, 12 June 2024, Project DESFT, Press release, BANK OF GHANA ANNOUNCES SUCCESSFUL COMPLETION OF CROSS-BORDER TRADE USING DIGITAL CREDENTIALS, PRESS-RELEASE-BANK-OF-GHANA-ANNOUNCES-SUCCESSFUL-COMPLETION-OF-CROSS-BORDER-TRADE-USING-DIGITAL-CREDENTIALS-120624.pdf

data subjects, supporting effective Know Your Customer processes without sacrificing privacy.

Nation states should identify regulatory definitions that are permissive of digitising both assets and ownership for digital representations where existing law and regulations are unable to accommodate these assets. They must promote user-driven consent-based data sharing, support the development of secure digital identity systems, and incentivise finance providers to adopt interoperability solutions. Moreover, international collaboration is key to harmonising standards and fostering global integration of domestic platforms and protocols. Initiatives involving central banks, development agencies, financial institutions, and industry stakeholders should be formed to build the necessary technical and policy infrastructure for a globally connected MSME financing ecosystem.

These mechanisms must meet the MSME customer where they are. They may not have continued access to the internet, the ability to run load-intensive programmes or to capture the preferred depth of information digitally. Solutions must be designed for low-cost, low-code environments, often running on in-device processors. User interfaces should be intuitive and literacy-agnostic, adopting accessibility tools. Partnerships with community groups to enable widespread access to legal identity systems and asset registries are needed. Government-sponsored literacy programmes should be started to further support MSMEs with education and onboarding to the digitised data and asset use cases.

The authors propose that trusted data, including that related to assets, be digitised and tokenised to facilitate transactions and transparency over transactions. Information on these transactions should be made available in globally accessible registries, to facilitate deeper risk analytics and mitigation, allowing for greater investability and tradability of these assets, and more affordable credit to asset owners. Success would require appropriate legal and regulatory frameworks to ensure enforceability and adoption.

Recommendations

1. The G20 should support the development of foundational services to enable fast-follower adoption of modern technologies and avoid widening the digital divide. These must be developed based on the realities of the local context. A risk is the lack of local implementation skills across many developing countries, undermining access to services for consumers, as seen with Kenya's digital ID,[11] or sovereignty risks when implementation is outsourced.[12]
2. The G20 should support digitisation and secure data capture through provision of interoperable and low-cost digital public infrastructure. A careful assessment of MSME data landscapes to establish what data could feed into digital asset registers and assessment of local and regional variations is needed. Strategies for bridging gaps in data should be designed in partnership with local communities, to determine how MSMEs may be supported.

   The supply of finance must be considered, and registries must accommodate local regulations under which finance providers engage with local data providers, including technology risk assessments. To ensure depth, banking associations and industry groups should represent the needs of their members and support adoption.

   Implementation must mitigate existing consumer risks within these markets. Over-indebtedness is prevalent across developing markets. Data can help providers develop a comprehensive picture of financial lives and ability to sustainably repay loans but needs effective regulation and enforcement to ensure that providers are incentivised to act responsibly.

[11] Citizen Experiences With DPI: Kenya's Digital ID Transition, Zollman and Sambuli, 2024, last accessed on 7 April 2025 https://www.findevgateway.org/paper/2024/08/citizen-experiences-with-dpi-kenyas-digital-id-transition
[12] Digital Public Infrastructure: promises vs realities, Bennett Institute for Public Policy, last accessed on April 7, 2025 https://www.bennettinstitute.cam.ac.uk/blog/digital-public-infrastructure-promises-vs-realities/

3. The G20 should mobilise stakeholders and initial capital, aligning on an interoperable global model purposefully designed for low-value, high-volume transaction flows, with governance of unstructured data, delivered over intuitive interfaces on low-cost, low-bandwidth tools featuring embedded financial and digital literacy.
4. The G20 should support the development of legal frameworks for DARs to be accepted sources of truth, with mediation and arbitration processes to ensure that cross-border disputes are reflected across registries, to support the investability and enforceability of transactions.

These policy recommendations and innovative approaches to proven technology applications will enable an ecosystem for MSME growth, leveraging regulated digital currencies and registries to drive economic resilience and empowerment. By taking these measures, countries and regions unlock employment and trading opportunities to prosper in the global digital economy.

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