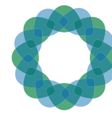

GPFI Global Partnership for Financial Inclusion

G20 Global Partnership for Financial Inclusion

Action Plan for Micro, Small, and Medium Enterprise Financing

December 2024

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Acknowledgments

This G20 Global Partnership for Financial Inclusion (GPFI) document has been prepared by the following Implementing Partners: World Bank Group, here comprising International Finance Corporation (IFC) and World Bank; the Organisation for Economic Co-operation and Development (OECD); and the SME Finance Forum (SMEFF), managed by IFC under the leadership of the G20 Brazil Presidency. The Presidency would like to express its sincere gratitude to the G20 Troika and all the G20 GPFI member countries for their support and contributions, to the GPFI Implementing and Affiliated Partners, and to G20 GPFI Co-Chairs Magda Bianco and Chanchal C. Sarkar for their guidance, which enriched the document significantly.

The drafting team comprised Ana Fiorella Carvajal (World Bank), Tatiana Didier (World Bank), and Ghada Teima (IFC), with contributions from Miriam Koreen (OECD). Gian Boeddu (World Bank), Veronica Castillo (World Bank), Sheirin Iravantchi (World Bank), Collen Masunda (IFC), Denis Medvedev (IFC), Adel Meer (IFC), Flore-Anne Messy (OECD), Harish Natarajan (World Bank), Will Paterson (World Bank), Douglas Pierce, (World Bank), Matthew Saal (IFC), Qamar Saleem (IFC), and Niraj Verma (World Bank) provided valuable comments and inputs. Jean Pesme (Global Director, Finance, in the Finance, Competitiveness and Investment Global Department, World Bank), and Rajagopal Raman (Global Industry Acting Director, Financial Institutions Group, IFC) provided overall guidance. Saba Bint Abbas and Luis Maldonado, both consultants, provided technical support. Patrick Friend provided editorial assistance and Maxim Valeriev Roussinov designed the report.

A special thanks to the Swiss State Secretariat for Economic Affairs for their financial support for this work.

Abbreviations

AI	Artificial Intelligence
CCAF	Cambridge Centre for Alternative Finance
CRS	Credit Reporting Systems
DPI	Digital Public Infrastructure
e-KYC	electronic Know-Your-Customer
EMDEs	Emerging Market and Developing Economies
Fintech	Financial technology
GDP	Gross Domestic Product
GPFI	Global Partnership for Financial Inclusion
HICs	High-Income Countries
IFC	International Finance Corporation
LICs	Low-Income Countries
MICs	Middle-Income Countries
MoJ	Ministry of Justice
MoF	Ministry of Finance
MSME	Micro, Small, and Medium Enterprise
OECD	Organisation for Economic Co-operation and Development
P2P	Peer-to-peer
SME	Small and Medium Enterprise
SMEFF	SME Finance Forum
UN	United Nations
VC	Venture Capital
WMSME	Women-owned or women-led MSME

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Executive Summary

The G20 Global Partnership for Financial Inclusion (GPFI) Action Plan for Micro, Small, and Medium enterprise (MSME) Financing is a call to action to intensify the efforts of G20 and willing non-G20 countries to close the financing gap for MSMEs.

The need for this Action Plan stems from the persistent credit gap affecting MSMEs, estimated at 19% of gross domestic product (GDP) in emerging markets and developing economies (EMDEs) as of 2019.[1] Addressing this gap will not only support MSME growth and resilience but also boost national economies, including through gains in aggregate productivity. It will also enhance countries' abilities to meet the sustainable development goals. The Action Plan draws from the experiences of the G20 GPFI members and Implementing Partners supporting countries in enhancing MSME financing, and in particular from recent reports that summarized lessons learned.[2]

The Action Plan builds on the initial G20 GPFI Small and Medium Enterprise (SME) Action Plan but expands it to take a more comprehensive view of the challenges hindering the ability of financial providers to serve MSMEs and how these challenges can be addressed. The initial Action Plan focused on key credit market infrastructure, in particular credit reporting systems (CRS), secured transactions and collateral registries, and insolvency regimes. Lessons learned from the experiences of both advanced economies and EMDEs confirm the crucial role that this infrastructure has in addressing the key challenges that hinder MSME financing, and the importance of deepening the ongoing reforms to ensure that the infrastructure remains fit for purpose. These lessons highlight the need for governments to expand areas of reform to build a more robust financial ecosystem for debt financing and to foster the diversification of funding sources, and for equity financing to support, in particular, the financing of innovation and growing firms. The lessons also underline the need to integrate a gender lens into the design of policies and interventions to address access to finance for women-owned and women-led MSMEs (WMSMEs).

The Action Plan identifies financial technology (fintech) as a key enabler of MSME financing, including financing of WMSMEs, while recognizing that fintech cannot address all the challenges affecting such financing. In addition, it introduces added risks. While still fragmented, the evidence points to a positive role for fintech, particularly in expanding short term debt financing by addressing challenges related to information asymmetries and transactions costs, and by helping MSMEs to better leverage "movable" collateral. By doing so, fintech also constitutes a powerful enabler for WMSME access to financing. However, challenges that affect the provision of long term financing to MSMEs, including equity financing, cannot be tackled simply via fintech. This is the case, for example, in the higher level of risk (perceived or actual) for MSMEs. Furthermore, the benefits of fintech are still concentrated in advanced economies and in the larger EMDEs. Finally, fintech also brings added risks that need to be adequately managed, particularly in the areas of cybersecurity, data privacy, and consumer protection.

This Action Plan, which is voluntary, calls on governments to implement a robust enabling environment for MSME financing that can address, in a holistic manner, the ongoing challenges and frictions that have affected MSME financing. The Action Plan identifies eight sets of actions aimed at fostering the diversification of funding sources for MSME financing, including better leveraging financial innovation, while mitigating the additional risks. The prioritization of these actions depends on country context. The actions are as follows:

1. Enhance CRS, with a focus on allowing the use of alternative data and the inclusion of alternative lenders.
2. Complete the enabling environment for secured transactions, including collateral registries, through the implementation of modern and secured transaction laws based on notice-based filing and expedited out-of-court procedures, and of digitized and interoperable collateral registries.
3. Develop the legal and regulatory frameworks and supervisory practices for nonbank financial providers and for innovative financing solutions, ranging from microfinance institutions to digital lenders and, in more developed jurisdictions, capital markets solutions.
4. Develop the enabling environment for equity financing, starting with the basic framework for companies to raise capital from a limited number of investors without triggering the requirements of a public offering, while also considering the need for adequate frameworks to support private funds, crowdfunding, and SME markets, depending on the country context.
5. Introduce simpler and less costly insolvency regimes, focusing on reducing barriers for out-of-court procedures and simplifying the insolvency process.
6. Implement measures to foster competition, with a focus on open finance or, depending on country context, open banking.
7. Develop consumer protection frameworks to ensure responsible lending and adequate protection for MSMEs, focusing on the implementation of a framework to foster transparency and prevent deceptive practices, while taking into consideration the need for provisions to protect data privacy and manage cybersecurity risks.
8. Ensure that robust foundational infrastructure is in place, in particular digital public infrastructure (DPI), such as digital IDs, digital payments, and exchange data systems.

However, the Action Plan also recognizes the need for targeted financial interventions. Many governments already deploy this type of intervention, including, for example, the provision of lines of credit and the establishment of credit guarantee schemes to expand debt financing, and the implementation of investment programs to expand equity financing, particularly for early-stage and venture capital (VC). Such interventions usually entail sizable fiscal costs, yet the experiences gained from both advanced economies and EMDEs indicate that in many countries these interventions might not be delivering impactful and sustainable results.

The Action Plan provides recommendations to improve the effectiveness of targeted financial interventions. The mix of targeted interventions that can be deployed depends on country context. However, the Action Plan identifies a set of eight recommendations aimed at ensuring that the mix of interventions deployed are well-targeted to underserved sectors, and lead to the effective mobilization of private financing. These recommendations are as follows:

1. Improve MSME data collection, including gender-disaggregated data.
2. Rely on thorough diagnostics for the design of targeted interventions, as the characteristics and needs of MSMEs vary significantly. As a starting point, a gender lens needs to be fully integrated into the diagnostic, and thus the design of interventions.
3. Focus on financial additionality, in particular private capital mobilization as a core objective alongside the targeting of underserved sectors.
4. Use concessional financing sparingly to avoid unintended consequences, including crowding out of commercial financing.
5. Harness donor development finance to stimulate and mobilize private capital, through innovative approaches that tackle the key challenges preventing commercial financing from reaching MSMEs.
6. Leverage nonfinancial targeted interventions, in particular consider the need for capacity building for both MSMEs and financial institutions.
7. Enhance monitoring and evaluation of targeted interventions, focusing in the short term on establishing performance indicators and in the medium term on implementing independent robust monitoring and evaluation, including control groups.
8. Improve coordination and ensure proper governance, by focusing on the development of a holistic strategy for MSME finance and by developing appropriate coordination mechanisms.

1. Introduction

Despite the vital role played by MSMEs in employment, job creation, innovation, productivity, and growth around the world, there is a persistent MSME financing gap.

MSMEs represent a significant share of economic activity and capture a large share of employment.[3,4] However, MSMEs continue to have difficulties accessing finance. The credit gap for emerging market and developing economies (EMDEs) was estimated at $5.7 trillion (19% of GDP) in 2019, with the gap for WMSMEs representing 34% of this amount.[5] EMDEs among the G20 account for 78% of the estimated gap. While jurisdictions in East Asia and the Pacific region account for a large share of the credit gap ($3 trillion), Middle East and Northern Africa jurisdictions often have the largest credit gaps as a share of GDP (close to 30% on average).[6]

Constraints in access to finance hinder MSME performance and resilience, limiting their ability to create jobs and contribute to broader economic development. These vulnerabilities become even more apparent during times of economic turmoil. For example, during the COVID-19 pandemic, many firms in EMDEs could not mitigate the effects of the shock, partly because their access to external sources of financing was limited.[7] In countries worldwide, MSMEs, which were overrepresented in the hardest hit sectors, faced liquidity constraints and a limited ability to tap into different sources of finance or adapt business operations.[8] Research shows that firms that had access to external financing were better able to maintain employment levels and avoid falling into arrears. [9] In fact, many MSMEs survived the crisis only thanks to unprecedented liquidity support provided by governments through job retention schemes, payment deferrals, and direct and indirect financial support.[10] More recently, tighter lending conditions have limited the flow of finance to MSMEs, impacting their resilience[11] and their ability to invest.[12]

Addressing MSME constraints in access to finance supports countries' achievement of UN sustainable development goals and could result in significant gains in aggregate productivity and growth. For example, estimates show that relaxing constraints on firms' access to debt and equity financing could lead to aggregate productivity gains of up to 86% in middle-income countries, with smaller firms benefiting the most from a more efficient allocation of capital across firms.[13] Access to diversified sources of financing, including both debt and equity, could help firms to weather shocks. For instance, capital market financing can replace bank lending during banking crises, allowing firms to lessen the adverse effects that a contraction on bank financing could have on firms' performance and on unemployment.[14] By supporting MSME performance, including productivity and resilience, access to finance becomes a crucial means for the implementation of the sustainable development goals, in particular access to decent work and economic growth and innovation (goals 8 and 9). Furthermore, it can support other goals such as gender equality (goal 5), when a gender lens is fully integrated into access-to-finance policies.[15]

The financing mix is important. Debt financing will remain the key source of external financing for most MSMEs, and it is crucial that governments foster the development of innovative debt financing products, as well as the emergence of alternative lenders. However, research has shown that equity financing is particularly critical for financing innovations, especially those that entail investments in intangible assets.[16] Such innovations are challenging to fund with debt financing, due to their high risk (or in some cases the perception of higher risk) and problems with collateralizing intangible assets.[17]

To sustainably close the financing gap, policy action needs to focus on addressing the barriers that hinder access to finance for MSMEs. As discussed in this Action Plan, these barriers stem from market failures and frictions that emerge largely from the characteristics of MSMEs (for example, high credit risk, opacity, and lack of suitable collateral) and the structure of the financial sector (for example, lack of competition, missing markets). In addition, lending to MSMEs is marked by higher transaction costs when compared to large businesses due in part to the smaller transaction size. MSMEs in EMDEs usually face more challenges in accessing finance as these countries typically have underdeveloped financial and credit infrastructures and less developed financial markets more broadly, which can also constrain the role of financial intermediaries and investors in MSME financing.

The first G20 Action Plan on SME Financing, endorsed under the G20 Turkish Presidency in 2015 and its implementation framework developed under the G20 Chinese Presidency in 2016, aimed to enhance SME access to finance through improved credit infrastructure. The Plan identified the lack of sound credit infrastructure as a significant barrier in the SME credit market. Thus, it sought to reduce information asymmetries and legal uncertainties that heighten risks for lenders and restrict the supply of finance to SMEs through three priority reform areas: (i) credit reporting systems (CRS), (ii) secured transactions and collateral registries, and (iii) insolvency regimes.[18]

This G20 GPFI Action Plan for MSME Financing is a call to action to intensify the efforts of G20 and willing non-G20 countries to close the financing gap for MSMEs. The lessons learned highlight the crucial role that credit infrastructure has in addressing key market failures hindering MSME access to credit, and thus they build on the first Action Plan. However, they also highlight the need for governments to deepen reforms to mitigate the market failures and frictions hindering debt and equity financing for MSMEs, thereby creating a more inclusive and efficient financial ecosystem to close the MSME financing gap. The Action Plan also underlines the importance of DPI and the role that fintech plays in expanding access to credit. In this context, as per the 2023–2026 G20 Financial Inclusion Action Plan, the G20 GPFI Action Plan for MSME Financing proposes a more comprehensive set of voluntary and nonbinding policy actions, paying special attention to the use of innovative methods, including digital solutions, for removing barriers and frictions, thus enhancing financing, particularly for under-served MSME segments like WMSMEs. The Action Plan draws insights from the recent experiences of high-income countries (HICs) and from EMDEs considering the rapid emergence of fintech, while building on previous work by the G20 GPFI, World Bank, IFC, OECD, SME Finance Forum, and other implementing and affiliated partners.[19]

The Action Plan focuses on actions to enhance financing for formal enterprises. It does not cover the broader policies to support the formalization of businesses, nor to improve financial inclusion for individuals, while recognizing that both sets of policies are critical to expanding access to finance for microenterprises, given that they tend to have higher levels of informality and sole proprietorship. It should be noted that the former (set of policies) far exceeds financial sector policies, which are the scope of GPFI work, while the latter is already covered in the G20 Financial Inclusion Action Plan.[20] The Action Plan does not cover access to other financial services and products, such as insurance, but still recognizes the important role that these play in MSME resiliency and in supporting access to finance. Similarly, the Action Plan does not cover policies to support a stable macroeconomic environment and sound fiscal management, but recognizes that these are critical to creating an environment where private financing can flourish.

The Action Plan does not tackle actions needed to support MSMEs in accessing climate finance. A box highlighting additional challenges that MSMEs are facing in accessing this type of financing, and a potential policy approach, has been included at the end of this Action Plan (see Box 6). This complements current work by the G20 Sustainable Finance Working Group, which is analyzing implementation challenges related to sustainability reporting standards, including those for SMEs. Continued coordination with the Working Group is needed to ensure that new requirements imposed on financial providers do not hinder MSME access to finance, and that measures to increase access to climate finance are well coordinated in the overall MSME access-to-finance agenda.

Countries worldwide can use this Action Plan voluntarily as a framework for policy prioritization, design, and implementation. The Action Plan calls for policymakers to prioritize improvements in the enabling environment for the financial sector, as these actions carry limited fiscal costs but could bring sizable benefits. Policymakers should build the core enabling environment for debt and equity financing, including the enabling environment, to encourage the use of fintech and ensure a level playing field for nonbank financial providers. In addition, the Action Plan calls for policymakers to adopt an evidence-driven approach to designing and implementing targeted support interventions in order to improve their effectiveness. In both cases, the Action Plan proposes a common set of voluntary and nonbinding policy actions that governments in HICs and EMDEs can use to identify key areas for reform, while mindful of their own country context. The Plan highlights where a differentiated approach might be needed considering the level of development of the countries, or the size of the firm (micro or small and medium enterprises).

As part of the GPFI commitment, a second phase of the Action Plan, a framework for the measurement of implementation, will be developed in 2025. For its design, the GPFI will take into consideration the suggestion expressed by members that the framework be simple and flexible.

2. The Changing Landscape for MSME Financing

2.1 Market Failures and Frictions Hindering MSME Financing

MSMEs differ significantly in their characteristics and financing needs. MSMEs vary from sole proprietorships or small family businesses, operating with no or minimal external employees and a high level of informality, to high-technology firms on the verge of a public offering; some may be high-growth firms, while others are low-growth firms. MSMEs are also very diverse in terms of organization, behavior, and performance.[21] As a result, their financing needs vary, together with their ability to access financing. Some MSMEs might need debt financing, but lack access to the formal financial sector; others may already have access to bank financing, but might benefit from diversifying funding sources, while others might need equity financing to finance their innovations.

Extensive research has identified several financial market failures and frictions that hinder access to finance for MSMEs and that stem from the characteristics of MSMEs.[22] These challenges are common to MSMEs and thus affect MSMEs located in both HICs and EMDEs; however, they affect firms differently depending on their size, level of formality, gender of the owner, as well as other factors such as the sector in which they operate and the type of financing they seek.[23]

- **Opacity.** MSMEs tend to be more opaque than larger enterprises, often lacking credible financial statements and standardized financial reporting, at least in part due to more informality in their operations. This leads to imperfect and asymmetric information, in which investors and creditors have greater difficulty assessing MSME prospects and creditworthiness, and monitoring their actions, thereby increasing transaction costs.[24] MSMEs also tend to be young, with limited credit history from formal financial markets, which creates a gap in publicly available credit history, further undermining the risk-assessment process.
- **High risk.** MSMEs tend to be relatively riskier and are perceived to have higher credit risks.[25] Large firms generally have more diversified, less volatile earnings, and a lower default risk compared to MSMEs, which are particularly susceptible to problems of financial distress and failure, as reflected in higher entry and exit rates for the segment.[26] This is a reflection of a complex set of factors, including MSMEs' typical lack of capital (equity), their reliance on a relatively narrower customer base, often lower capabilities (such as managerial), weaker governance, and limited financial literacy.
- **Lack of collateral.** MSMEs usually lack the type of assets that financial intermediaries require as collateral, which could mitigate the challenges associated with their opacity and higher riskiness.[27] Unlike larger firms, which often possess substantial immovable assets that could be provided as collateral, MSMEs typically only have at their disposal movable assets (equipment, inventory, and accounts receivable) and, in some cases, intangible assets. Such assets are often perceived as a less valuable form of collateral because of difficulties in gauging their proper financial value and, depending on the country, difficulties on constituting claims on them and on acting on these claims in case of default. Here, women are particularly disadvantaged, as they own less real property than men.
- **High transaction costs.** MSME lending, by definition, implies smaller transaction amounts compared to corporate lending, but requires just as much (if not more) work for the underwriting process, operations, legal, and credit-risk monitoring of the financing transaction. Hence, the cost associated with processing and managing relatively small MSME transactions tends to be higher relative to revenues, diminishing the profitability of such transactions for financial institutions.[28]

Financial providers are therefore less likely to extend financing to these firms due to a lack of available tools for managing information asymmetries and the high risk and costs of serving MSMEs. In addition, the lack of financial skills among MSMEs means that such enterprises may

not recognize the range of available financing opportunities, which can further restrict their access to finance.[29] As a result, bank lending is the most common source of external finance for many MSMEs and entrepreneurs, whereas other instruments, including asset-based finance, alternative debt, hybrid instruments and equity, remain largely untapped by SMEs.[30] As these problems are more pronounced for microenterprises, these types of firms tend to face the largest challenges in accessing formal financing,[31] and thus they rely more extensively on the informal sector.

WMSMEs face greater challenges in accessing finance. Key factors impacting access to finance include structural differences in the sectors and businesses that women operate, largely triggered by gender-specific constraints, including social norms that limit women's education, time, mobility, and even their ability to hold collateral, which therefore impact their decisions and ability to operate a business. It should be acknowledged that the impact of these norms varies across MSMEs and across countries. In addition, there is empirical evidence for the existence of biases by lenders and investors, and differences in women's behavior when approaching financing decisions[32] (see Box 1). Therefore, it is critical that governments incorporate a gender lens in the design of MSMEs' access-to-finance policies. Policymakers should aim at understanding how the factors mentioned above affect WMSMEs in their respective jurisdictions and incorporate appropriate gender-sensitive policies in their action plans.

Youth-led businesses also face greater constraints to access finance. Preliminary lessons indicate that these constraints are associated with lack of experience and credit history (see Box 1).

Box 1. The Challenges of Access to Finance for WMSMEs and Youth-Led Businesses

WMSMEs

WMSMEs suffer additional constraints to access financing compared to male-operated businesses. World Bank experience in the field, along with several country studies, shows that in addition to being less likely to have access to a loan, women entrepreneurs are more likely to face higher interest rates, stand a greater chance of being required to collateralize a higher share of the loan, and more often must rely on shorter-term loans compared to male entrepreneurs. Regarding equity financing, businesses founded by women receive only a fraction of the overall funding from investors. In 2020, only 2.3% of global venture capital (VC) investments went to businesses with female founders, although businesses owned by women tend to deliver higher returns on investment—more than twice as much per dollar invested—and stronger cumulative revenues (nearly 10% more) over a five-year period compared to businesses led by men. In the case of start-ups, most entrepreneurs identify lack of investors and shortage of funding as a barrier.

Overall, three types of factors impact WSMEs' access to finance: structural differences, supply-side discrimination, and demand-side constraints to external sources of financing.

- **Structural differences:** Among other reasons, WMSMEs tend to concentrate in lower-margin sectors, have lower levels of business capital and labor, and fewer tangible assets to offer as collateral, all of which affect the evaluation of their businesses by lenders and investors. Such differences are largely the result of gender-specific constraints that ultimately affect the decisions women make as entrepreneurs. Women are heavily influenced by social norms surrounding education, permissible economic activities, and interactions with buyers and suppliers, especially in EMDEs, all of which affect their ability to conduct business.[33] For example, social norms may prevent many women in some EMDEs from accessing safe and reliable transportation (limiting their mobility), access to information (including informal communication networks), and participation in training. Furthermore, in many countries, women bear disproportionate responsibility for childcare and eldercare, which influences their economic participation by limiting their personal time. In addition, women often lack authority over the allocation of household assets and face pressures to share their own resources. Legal and regulatory constraints in family law and inheritance play a role in women's ability to own property and access collateral. According to the Women, Business and the Law report, to this day, nearly 25% of economies limit women's property rights. Lastly, women tend to lack access to legal identification and credit histories more often than men. It should be acknowledged that the impact of social norms differs across MSMEs, as well as across countries.
- **Biases from lenders and investors:** There is empirical research confirming the existence of gender biases. While some of these biases relate to discrimination, others emerge in the context of imperfect information, where data on indicators such as creditworthiness are difficult and costly to obtain by financial providers.[34]

- **Behavioral differences on the demand side:** Many women entrepreneurs do not even apply for financing, thus self-selecting out of financial markets; empirical evidence points to low financial literacy, high risk aversion, or fear of rejection (or a combination of these factors) as reasons.[35]

Source: Carvajal and Didier 2024

Youth-led businesses

Youth entrepreneurs suffer additional constraints in financing access that hamper their ability to start and scale up their businesses. According to the UN, youth is defined as those individuals between the ages of 15 and 24. Youth entrepreneurs tend to be riskier because they usually lack business experience (including managerial experience) and have limited ability to meet traditional criteria for obtaining financing for their new businesses. For instance, they have limited credit histories (if any) and do not have assets that can be offered as collateral. They may also lack access to business networks. As a result, youth entrepreneurs have more limited access to financing from established sources, such as commercial banks, and typically rely on alternative financing sources, such as family savings and informal lenders.

Source: GPFI 2020

Other challenges stemming from the structure and level of development of the financial sector compound the problem. These challenges tend to be more accentuated in jurisdictions with less developed financial systems.

- **Limited competition.** Research has shown that limits to competition in the financial sector, characterized by market power among few financial providers, tend to increase the cost of financing and reduce the quantity and quality of financial services, including access to a wider range of financing products more tailored to the needs of MSMEs; this typically impedes access to finance, especially for under-served segments like MSMEs.[36]
- **Missing Markets.** Underdeveloped markets (or market segments) can restrict the range of financing sources and products available to MSMEs. Without a robust range of financial markets, MSMEs often have few choices beyond traditional, collateralized loans from banks. For example, in many countries, lack of access to long-term financing (due to incomplete markets including underdeveloped capital markets) has affected the ability of microfinance institutions to scale up and reach more MSMEs. Funding challenges have also affected the ability of other alternative lenders, including fintech lenders, to operate and scale up. Similarly, underdeveloped capital markets have affected the availability of equity financing. Research has provided robust evidence of the importance of access to diversified sources of financing, both debt and equity.[37]
- **Incomplete enabling environment:** Finally, in some jurisdictions the enabling environment for MSME financing is incomplete. For example, some jurisdictions might not yet have in place robust credit information systems, which can support the development of credit assessment tools, or the framework to support the development of alternative lenders or equity financing.

2.2 Innovations in MSME Financing & Their Impact in Addressing Market Failures and Frictions

Preliminary evidence indicates that fintech is enabling financial providers to address some of the barriers hindering MSME financing, especially debt financing. Existing empirical research on the role of fintech in access to finance is still fragmented. There is growing empirical research indicating an important role provided by fintech lenders in the financing of riskier borrowers,[38] and softer evidence of their impact in MSME outreach. In contrast, there is a dearth of empirical research on the impact of the use of fintech by banks, although softer evidence suggests that in some countries the use of fintech is helping them to expand their outreach to MSMEs. Altogether, this evidence supports the conclusion that fintech can foster the diversification of financial providers and the expansion of the range of financial products for MSMEs. In doing so, fintech can become an essential enabler in closing the MSME financing gap,[39] including for women-led or -owned businesses[40] and youth-led businesses (see Box 2). DPIs can further enhance the role of fintech in improving MSME access to finance by allowing financial institutions, and firms specializing in automated access-to-finance solutions, to leverage shared, open, and interoperable foundational utilities. This allows them to focus on innovation and service delivery to the consumer.[41] At the same time, the evidence points to additional risks, brought by the use of fintech, which need to be adequately managed, particularly in the areas of consumer protection, cybersecurity, and data privacy.

Addressing market failures stemming from the characteristics of MSMEs

Several fintech solutions are helping address the small transaction size and high transaction costs of serving MSMEs by enabling arms-length lending at scale.[42] Process automation and digitalization enable the automation of customer onboarding, loan application, credit assessment, approval, disbursement processes, due diligence, and collection, while lowering regulatory compliance costs.[43] Moreover, digital technology enables lenders to reach MSMEs at lower costs through digital channels. By facilitating digital access to finance through "branchless banking," fintech solutions can improve the outreach to smaller firms in more remote areas, thereby reducing the typically high transaction costs associated with servicing these firms through conventional ("brick and mortar") branches.[44] Digital delivery channels can help address mobility limitations faced by WMSMEs (see Box 2). Overall, automation and digitalization efficiently enable large volumes of small transactions, leveraging digital technology to scale operations without a corresponding cost increase.

Fintech is allowing financial providers to address information asymmetries in MSME financing by leveraging alternative data as reputational collateral.[45] Instead of relying exclusively on traditional MSME credit history or collateral to address information gaps about MSMEs' ability to repay debts, financial providers can now use data-driven credit scores or access real-time payment data to extend credit to MSMEs. These solutions use big data analytics, artificial intelligence (AI), and machine learning to analyze nontraditional alternative data sources, enhance the accuracy of credit-risk assessments and lending decisions, as well as improve risk management, thereby reducing default rates in MSME financing. Information from utility payments, payment processors (i.e., credit card clearing companies and payment systems), and digital transactions such as those from e-commerce marketplaces can help financial providers quantify cash flows and income and calculate an MSME's repayment capacity.

Novel credit scoring methods can incorporate real-time data analysis for dynamic credit assessments, reducing reliance on outdated financial statements.[46] There is growing evidence of the roles that alternative data and enhanced credit scoring methods have in providing greater outreach to SMEs,[47] including to WMSMEs and youth, if properly designed (see Box 2).

Another innovation that holds promise in addressing information asymmetries is embedded finance, which integrates financing into the operational workflows of nonfinancial businesses. Embedded finance models include, for example, e-commerce platforms and logistics platforms that provide or enable working capital lines for merchants selling on their websites, leveraging information from the borrower's revenues, the quality of their business (returns and customer complaints), and the overall market trends. Other examples are wholesale order management, consumer goods distribution networks, and payment systems that provide inventory finance or consignment sales of consumer goods stocked by MSME retailers.[48] These business models allow MSMEs to leverage digital transactional data on orders, inventory, sales, or receivables not only to enable access to working capital financing, but also to allow them to leverage their broader business relationships to provide alternative recourses to lenders when they lack collateral for debt financing. For instance, e-commerce lending enables financial providers to deduct loan repayments from revenues at source, and borrowers who depend on the platform for access to their customers are likely to prioritize repayment to that creditor should they encounter financial distress.

Innovations in asset-based financing have enabled financial providers to reduce the need for immovable collateral from MSMEs, instead providing financing based on movable assets. Fintech has not only enhanced traditional asset-based financing solutions—such as factoring, reverse factoring, and leasing—but has also enabled better use of other movable assets, such as inventories, warehouse receipts, and even card payments (referred to as merchant receivables financing).[49] Additionally, other fintech innovations have contributed to enhancing asset-based financing for MSMEs: digital platforms help record and track financial transactions; connectivity with independent sources (for example, payment processors, tax authorities) helps verify the existence and eligibility of collateral; the Internet of Things helps monitor maintenance, sale, and restocking/replacement of collateral; and smart contracts help automate the settlement of agreements.[50]

Fintech solutions can help address some of the challenges of limited financial literacy. Automation and alternative credit scoring mechanisms have enabled the tailoring and targeting of financial products to the various needs of individual MSMEs, thereby simplifying the decision-making process for MSMEs. Fintech platforms are designed to be intuitive and easy to use, sometimes including educational resources to help MSMEs understand financial products and services. Moreover, some financial providers offer integrated financial management tools (e.g., accounting software, cash flow management) through digital platforms that help MSMEs improve their internal processes and the quality of their financial information, in addition to helping them make informed financial decisions.[51]

Box 2. The Role of Innovation in Enhancing Financing to WMSMEs and Youth-Led Businesses

WMSMEs

Recent innovations highlight fintech's potential in expanding WMSME access to finance, while also revealing some specific challenges for a greater take-up of fintech lending solutions by WMSMEs.

Although robust evidence is not yet available, alternative credit scoring shows promise in addressing the drawbacks of lack of collateral and reliance on traditional credit information for WMSME access to finance. For example, several innovations in credit scoring due to increased use of alternative data have supported the growth of loans with lower collateral requirements or even uncollateralized lending.[52] Credit scoring holds the potential to mitigate gender bias in credit origination, if properly designed.[53]

In addition, tailored products that rely on technology to reduce the time to obtain a loan and provide convenient access to funds, such as automatic and on tap disbursement of funds, can be particularly useful to WMSMEs—especially in a context where they might suffer mobility constraints due to social norms.

However, women have lower access to, and therefore uptake of, digital technologies due to a variety of factors.[54] For example, existing research highlights that uptake of digital lending solutions by WMSMEs can be challenging due to lack of trust and arguably lack of financial literacy.[55] The limited number of recourse mechanisms that users have to enforce their rights and the lack of transparency in the use of customer data were identified as key sources of concern. Thus, digital technologies for WMSMEs need to be designed with WMSMEs in mind, and WMSMEs need to be onboarded properly and have access to real support should issues arise.

Source: Carvajal and Didier 2024

Youth-led businesses

Fintech innovations have the potential to address some of the challenges of financing young entrepreneurs. For example, credit scoring innovations that leverage behavioral information, including enterprising tendencies and/or business acumen, rather than their sparse credit histories, could help enhance access to finance. Specifically, alternative methods for assessing the creditworthiness of youth entrepreneurs include psychometric tests and talent identification processes that screen for traits such as grit, ambition, and effective decision-making skills. In addition, fintech innovations leveraging alternative data can improve the accuracy of credit risk assessments for this segment.

Another innovation is tranched financing to mitigate the high risk of youth entrepreneurs. The disbursement of funds can be based on predetermined milestones related to business performance, a proven commitment to building a financial track record, and/or relevant business or vocational skill acquisition. This type of tranched financing has the potential to lower the default rates, while also raising the probability that youth entrepreneurs can launch sustainable businesses.

Source: GPFI 2020

Addressing market failures stemming from the structure of the financial sector

The adoption of digital technology and fintech can foster competition among financial providers. Many fintech solutions can be used as a tool for banks to compete for MSME loans and for new financial providers (i.e., digital banks, fintech lenders) to enter this space and compete with incumbent providers. In addition, in some countries, "true" marketplace platforms have emerged, in many cases with government support. These platforms create an open and transparent environment where multiple financial providers can offer financing directly to MSMEs, enabling competition on a level playing field. For instance, the platforms often provide comparative tools that allow MSMEs to compare products and services from different providers side by side, making it easier to see differences in pricing, features, and terms. Marketplace platforms can lower the entry barriers for smaller or new financial providers by providing access to a broad customer base without requiring extensive branch networks or marketing expenditures.

Fintech is allowing the emergence of new financial intermediaries (lending and equity crowdfunding platforms) that are helping MSMEs directly access capital markets, thus helping to complete missing markets. Lending and debt and equity crowdfunding platforms connect investors and MSMEs directly, bypassing traditional financial intermediaries. Peer-to-peer (P2P) lending platforms enable MSMEs to borrow from nonbank lenders, such as retail investors and institutional investors, depending on the platforms' business model.[56] As noted above, P2P platforms rely on automation to speed up the decision-making process, thus lowering transaction costs and enabling scalability. Similarly, professional investors dominate VC financing, whereas equity crowdfunding platforms have enabled retail investors to fund MSMEs directly through equity and quasi-equity instruments. This method democratizes the investment process, allowing anyone to contribute financially to a business venture, thus broadening the investor base significantly. Research in HICs suggests that equity crowdfunding platforms are more likely to fund highly innovative, high-risk companies that may otherwise fail to raise capital from VC funds.[57] Equity-based crowdfunding tends to focus on young and very early-stage companies, as well as start-ups and projects that require relatively small amounts of funding.[58]

In selected jurisdictions, fintech is deepening other types of capital markets solutions for MSME financing. In many countries, banks and other MSME lenders use capital markets to raise long-term funding[59] through relatively simple instruments, such as plain vanilla bonds, and in more sophisticated capital markets, through instruments more directly tied to their MSME portfolios, such as the securitizations of their MSME loans. Fintech is supporting the development of multi-origination platforms that enable the pooling of MSME loans across lenders, helping them overcome the challenges of a relatively small MSME loan portfolio of smaller financial providers and thus reducing transaction costs.

Fintech has enabled a high degree of customization of financing to the needs of MSMEs, thereby leading to more complete markets. Big data analytics, real-time time business information, automation, and innovative financing models have enabled financial providers to offer highly tailored financing options to MSMEs. For instance, online lending platforms offer loan terms and conditions tailored to the specific needs and risk profiles of businesses—not only interest rate and maturity but also repayment conditions and collateral that are more suitable for individual MSMEs. Such a customer-centric approach to product development would not be cost-effective for financial providers operating under more traditional business models, like relationship banking, which would require highly trained and expensive experts.[60] Crowdfunding platforms allow MSMEs to tailor their fundraising campaigns to specific investor groups and set their own terms for investments. Merchant receivables finance products tailor repayments to a percentage of daily credit card sales, thus providing financing options that scale with business revenues.

Other innovations through capital market solutions have allowed MSMEs to diversify their funding sources, although they have been less dependent on fintech. For example, in some countries, minibonds are a growing financing tool that is allowing medium size companies to raise capital directly from retail investors, often at lower interest rates, thus providing an alternative to traditional bank loans. Debt funds have supported a wide range of MSMEs, as these funds can invest in various assets—from receivables to MSME loans and even minibonds. SME markets have emerged in several countries, often based on less costly listing requirements than traditional public equity markets. How far these requirements are reduced depends on the branding and positioning of the exchange, including the type of investors to which it caters.[61]

Box 3. Diversification of Financing for MSMEs

Banks remain the main source of external debt financing for MSMEs, globally. However, there are significant variations in the size of banks' SME portfolios. In 2020, SME loan volume represented about 7% of GDP for middle-income countries (MICs) compared with 12% for HICs. In low-income countries (LICs), SME bank loans represented an even smaller share of GDP, estimated at about 3% for the median country.[62]

Soft evidence indicates that banks are leveraging fintech to reach MSMEs, although the actual impact is as yet uncertain. Banks have started to adopt fintech solutions through various means, including in-house initiatives, implementing new technologies from fintech vendors, acquisition of fintech firms, and strategic partnerships with both fintech vendors and new fintech financial providers through different business models including embedded finance. This partnership of fintech players and banks can bring benefits to both parties. A fintech-bank partnership allows fintech companies to overcome funding constraints, at least partly, in a cost-effective manner, and gain access to a large customer base, leveraging the reputation of the partner bank. For banks, these partnerships can increase their outreach via new financial products. At the same time, the partnerships can add risks that both parties need to manage adequately. For example, in the case of the banks, lax credit standards embedded in the models used by the fintech partner could lead to a high number of nonperforming loans, with corresponding capital implications.

In a few EMDEs, microfinance institutions play an important role in financing microenterprises. The available fragmented data indicate that microfinance institutions allocate a significant portion of their loans to (formal and informal) micro and small companies. Microfinance institutions have devised a variety of strategies to overcome the barriers of financing these smaller enterprises. They often operate under different business models than banks, with lower reliance on collateral, for instance. In selected EMDEs, microfinance institutions hold sizable lending portfolios, particularly in some lower middle-income countries, albeit with total lending significantly smaller than that of commercial banks. Soft evidence indicates that microfinance institutions are increasingly relying on fintech; however, as with banks, robust evidence for the impact of fintech is limited.

Other alternative lenders, including fintech providers, are growing, but this growth is concentrated in high-income countries and a few larger EMDEs. Asset-based financing providers are a key source of alternative volume financing for MSMEs, given their reliance on movable collateral. Fintech solutions have given a boost to asset-based financing, particularly receivables financing, however overall financing volumes remain relatively small and concentrated in high-income countries and larger EMDEs. By global volumes, digital banks are the largest segment of fintech lenders, but their lending volumes remain small when compared to the incumbent banking sector. As of 2020, the total portfolio of digital banks amounted to $660 billion worldwide, with SME loans estimated at about 10% of the total. Fintech lending platforms have had rapid growth[63] but still represent a very small portion of global banking assets. At a global level, fintech lending platforms have provided MSMEs a total estimate of $44 billion in new financing as of 2020.[64] There are exceptions, however, mostly in HICs, where fintech providers such as digital banks and fintech lending platforms have become large players in the MSME space. Finally, BigTech have so far entered the market mainly through partnerships with banks or by creating their own digital banks.

Capital markets solutions for debt financing are comparatively scarce, and more concentrated in advanced economies. However, recent experiences in advanced economies and larger EMDEs highlight the role that capital markets solutions can have in MSME financing. For example, securitization is being used by a range of MSME financial providers, including alternative lenders, to access long term funding. Debt funds are being used to "package" different types of MSME assets, from minibonds to loans and receivables. Finally, instruments like minibonds are helping more established medium-size companies access the capital markets directly.

Private and public equity markets remain relatively small, especially in EMDEs, indicating that debt financing remains the main source of external financing for MSMEs. Private markets, especially VC markets, are the main source of equity financing for SMEs. Yet, they remain small in most EMDEs, with developed economies concentrating most of the volumes transacted. While the median HIC country has VC investments at around 0.3% of GDP per year, such investments stand at about 0.01% of GDP (or less) in MICs, and only a handful of EMDEs have markets with greater depth.

Fintech has started to play a role in private equity markets and the financing of innovative firms through crowdfunding platforms, but these platforms remain markedly small in most EMDEs. Moreover, whether the companies that raise capital through crowdfunding platforms can obtain follow-on funding from other sources and thrive in the long term remains an open question. According to the Cambridge Centre for Alternative Finance, equity crowdfunding reached $2 billion globally in 2020, which represents less than 0.1% of the venture capital industry.

As already noted, SME markets have emerged in a wide range of countries, to support more mature MSMEs. As of 2022 there were around 90 SME markets worldwide, most of them structured as exchanges; however, only about 40% of them, mostly in HICs and large MICs, are active.

Source: Carvajal and Didier 2024

Key unresolved areas and additional risks brought by fintech

Fintech solutions and innovations do not address all the underlying barriers in access to finance for MSMEs. The higher risk (perceived and real) of the MSME segment remains largely unresolved. Fintech is enabling the diversification of funding sources and products for MSMEs, especially for short-term debt financing, but its role in developing long-term financing for MSMEs has been more limited. For example, financial providers have leveraged fintech solutions to address constraints posed by the MSMEs' lack of (immovable) collateral for short-term[65] working-capital financing. The use of fintech solutions to support expansion for longer-term loans is still uncertain and, for equity financing, also remains limited.

Importantly, the positive impact of these innovations in MSME financing seems to be concentrated in HICs and large, more developed, EMDEs. The reasons might be multifold. Recent World Bank research indicates that fintech activity is positively associated with a country's overall degree of economic and institutional development, as proxied by GDP per capital.[66] However, there is a significant level of variation among countries that is not explained by the level of economic and institutional development. Other factors are also critical. In particular, various research has found that fintech activity is positively correlated with widespread access, usage, efficiency, and affordability of Information and Communication Technology and financial infrastructure.[67] A basic enabling policy environment is a necessary, although not sufficient, condition for fintech penetration.[68] Finally, the distinction between incumbent banks and fintech companies is particularly important when exploring other potential drivers of fintech activity (such as the development level of the financial sector).

Fintech could bring about changes in market structure and competition dynamics that negatively impact MSME financing. For example, as argued in Box 3, in many countries, fintech players are partnering with banks, rather than competing with them, which could exacerbate market concentration effects.

The new business models and financing products introduced by fintech are marked by unique challenges. For example, new business models, such as embedded finance, are more complex and might trigger conflicts of interest and risks that need to be adequately explained to MSMEs. At the same time, these types of partnerships could introduce additional risk for incumbents, which they must manage effectively (see Box 3). Other business models, such as lending and debt and equity crowdfunding platforms, trigger concerns in relation to investors. Research has shown that equity investors tend to focus on expected returns rather than on the higher risks of default.[69] At the same time, the standard for disclosure for these products is lower than that required for traditional public offers.[70] Other risks include project failure, closure of the platform, lack of exit options, and fraud.[71]

Providing finance via leveraging digital solutions and channels increases the potential risks associated with cybersecurity.[72] Vulnerabilities in these areas can lead to data breaches, data theft, and cyberattacks, undermining the security of financial transactions and deterring fintech adoption. As interconnectivity increases, the disintermediation of financial services becomes more widespread but also more complex, as a larger set of distinct entities may be involved in the provision of a single financing product, which in turn increases the number of vulnerable links. Cybersecurity threats can disrupt business operations, cause significant financial losses, and damage the trust of customers and partners. Ensuring robust cybersecurity measures is essential for fostering a safe digital environment where MSMEs can thrive and leverage access to digital financing solutions.

Using alternative data and automated approaches for credit risk assessments could introduce distortions into financial decisions.[73] The integration of machine learning and artificial intelligence in credit risk assessment varies significantly among countries (and financial intermediaries) and as discussed earlier, evidence for the associated benefits and potential drawbacks is still fragmented. One key area of concern is precisely the possibility that machine learning and non-generative AI algorithms could lead to (or at least not eliminate) discrimination biases (such as gender, race, and geographical location), which arguably have a larger impact on underserved segments. These biases would arise due to limits in the underlying data used to train such algorithms, which can be incomplete and unrepresentative. The opacity of the algorithms makes it particularly difficult to address these biases, thus complicating the adoption of safeguards. While these biases are arguably more pronounced for consumer lending, they can also have a significant impact on microenterprises, for instance, as the line between the owner and the firm is blurred. Some evidence exists confirming these concerns.[74] However, solutions are in constant evolution and practitioners expect that machine learning and AI-based credit scores will become more accurate and comprehensive in evaluating credit risk over time. Nevertheless, this underscores the need for responsible use of these solutions.

As data become an important source of market power, financial market regulators face new dimensions in the long-standing balancing act between competition and efficiency, financial stability, and market integrity. This additional layer relates to data privacy and consumer and investor protection. First, there is a trade-off between competition, data privacy, and consumer protection. In the absence of privacy concerns, wider sharing of data could enable better use of the data, leading to better product customization, for example, thereby enhancing competition and financial inclusion. However free sharing of information can harm borrowers by, for example, enabling the manipulation of behavioral biases to sell consumers products that are not in their interest. A regulatory environment that limits the sharing of customers' information can help ensure data privacy but can reduce competition. Second, there are tradeoffs between data privacy, consumer protection, and financial stability, as data sharing can alleviate problems of asymmetric information and thus could be beneficial for financial stability and market integrity.

The use of fintech not only requires an appropriate regulatory response, but also enhancements in supervision—particularly in EMDEs where financial supervisors face capacity challenges. Many financial sector supervisors, especially in EMDEs, already face resource constraints that affect their ability to effectively supervise their markets. The increased use of fintech by market participants aggravates them. For example, many supervisors are unable to compete with the private sector for expert resources (i.e., technology experts, experts with a mathematical and modeling background) which they increasingly need to understand and effectively supervise the activities of both incumbents and new financial providers. Budget resources also constrain their ability to upgrade the technological tools at their disposal.[75]

3. Policy Actions to Close the MSME Financing Gap

Given the innovations in the MSME finance space, along with an improved understanding of the distinct roles of equity versus debt financing, policymakers need to adapt their policy support toolkit accordingly. This revised toolkit should place increased emphasis on fostering the development of a wider range of financial providers and innovative financial solutions, including the use of fintech, while ensuring that risks are adequately mitigated. Pursuing this agenda may require a revision of the enabling environment for MSME finance, as well as a reassessment of targeted financial support interventions to enhance impactful outcomes.

This Action Plan 2.0 outlines a set of voluntary and nonbinding priority actions and recommendations that G20 countries and willing non-G20 countries should consider, to close the MSME financing gap. As indicated earlier, this Action Plan 2.0 builds on lessons learned from HICs and EMDEs, as well as on previous work by the GPFI and the implementing partners.[76] Importantly, when determining the scope of specific policies to deploy, policymakers need to consider individual country contexts and prioritize evidence-based policies that address the underlying challenges constraining MSME financing in their respective jurisdictions.

3.1 Horizontal Policy Support: Strengthening the Enabling Environment

Completing the enabling environment for MSME finance remains the key priority for governments. A supportive enabling environment is the backbone of firm financing. While policies aimed at fostering an enabling environment do not directly target a specific set of firms—and thus are horizontal in nature—they tend to provide disproportionate benefits for MSMEs. Moreover, implementing such an agenda carries very limited fiscal costs; however, as detailed below, the benefits could be sizable.

The core of this agenda, pursued by countries globally for the last 20 years, remains highly relevant, but adjustments are needed and new areas requiring attention have emerged. As indicated earlier, lessons emerging from both HICs and EMDEs confirm the critical role of basic credit infrastructure for MSME financing (CRS, secured transactions and collateral registries, and insolvency regimes). At the same time, country experience shows that in many cases the reforms pursued by countries are incomplete. In addition, country experiences show that while this agenda remains critical, it is not sufficient in addressing the market failures that hinder MSME financing, nor in ensuring that financial providers can leverage financial innovation in a responsible manner.

In this context, the Action Plan draws from the first G20 SME Action Plan and its Implementation Framework and expands it. The new Action Plan maintains actions related to credit infrastructure, but places greater emphasis on areas where additional progress is needed, including better leveraging of financial innovations. Importantly, new actions have been added aimed at supporting further diversification of funding sources and providers as well as product innovation, while ensuring that the risks introduced by financial innovation and a more complex financial system are appropriately managed.

The actions identified in this Action Plan are relevant for countries at different stages of development and support access to finance across the whole MSME spectrum, including financing for WMSMEs and youth-led businesses. However, clarifications are made regarding potential sequencing of specific actions, due to the level of development of the financial sector (which in most countries is closely related to the level of economic development). Equally, clarifications are made in regard to the relevance of specific actions related to micro versus small and medium enterprises. As indicated earlier, in the case of microenterprises, an agenda of financial inclusion for individuals is critical to enhance their access to finance. The G20 have already developed an Action Plan for financial inclusion, therefore the present Action Plan does not cover such policies. Table 1, below, provides a list of key actions and a summary of the key market failures that each action can mitigate, as well as guidance regarding their applicability and relevance for countries at different levels of development, for different types of MSMEs and the key public authorities that could be responsible for these actions.

Further prioritization of these actions should be done on a country basis. Each action addresses specific challenges and market failures, and/or mitigates specific risks; thus, it is not possible ex-ante to prioritize them further. Rather, governments should undertake a diagnostic assessment of the existing enabling environment and ecosystem for MSME financing in their jurisdictions with a view to identifying the key gaps in relation to this agenda. Thus, in practice, prioritization might significantly differ based on previous steps and progress. In many cases, changes to laws and/or regulations might be needed, and government authorities are encouraged to hold consultations with market participants to ensure that reforms are in line with country context. Furthermore, depending on each context, authorities could consider the adoption of sandboxes and/or innovation hubs to support these reforms and foster the use of fintech by financial providers.

Table 1. Key Actions Addressing Market Failures: Applicability, Relevance, and Responsible Public Authorities

Action	Main market failures addressed	Applicability across countries	Relevance across MSMEs	Key authorities
Action 1. Enhance credit reporting systems (CRS)	Limited or asymmetric information/opacity	Equally relevant, but the type of alternative data and alternative financial providers to be included in the CRS will vary depending on country context	Relevant to expand financing for all MSMEs, but alternative data are particularly useful to enhance access to finance for unserved/underserved MSEs, especially those lacking access to formal credit. Access to the CRS by alternative providers is critical for MSEs, but the importance of each provider depends on country context	Government ministry (depending on country, could be Ministry of Justice [MoJ] and Ministry of Finance [MoF]) financial regulators
Action 2. Complete secured transaction frameworks and collateral registries	Limited collateral	Equally relevant, but likely that most HICs already have these reforms in place	Relevant to expand financing for all MSMEs, especially as the types of movable collateral expand	Government ministry (MoJ and MoF); government authority in charge of collateral registry; judicial authorities
Action 3. Develop the framework for nonbank lenders	Market concentration and limited competition; incomplete markets	The type of financial intermediary to prioritize depends on country context. Capital markets solutions more useful to countries with more developed capital markets	Not all financial institutions cater to all types of MSMEs. Thus, prioritization depends on country ecosystem. In general microfinance institutions and alternative lenders are particularly relevant for MSEs	Government ministry (usually MoF); financial sector regulators
Action 4. Develop the framework for equity financing	High credit risk; Incomplete markets	The basic set of actions is relevant for all countries. Applicability of the remaining actions depends on country context, and likely relevant only for countries with more developed equity markets	Relevant to expand financing mainly for a subset of firms, typically those pursuing innovative activities (incl. startups) and companies with growth potential	Government ministry (MoJ and MoF)
Action 5. Establish tailored insolvency regimes	High credit risk	Relevant for all countries	Relevant to expand financing for all MSMEs, but especially useful for MSEs (incl. startups)	Government ministry (MoJ and MoF)
Action 6. Foster competition	Market concentration and limited competition	Relevant to all countries	Relevant to expand financing for all MSMEs, especially high-risk ones	Government ministry (MoJ or MoF) financial regulators
Action 7. Enhance consumer protection	Market integrity issues	Relevant for all countries	Some measures particularly relevant for MSEs	Government ministry (MoJ, MoF); financial supervisors
Action 8. Develop foundational digital public infrastructure (DPI)	Support the adoption and usage of fintech	Relevant for all countries	Relevant for all MSMEs	Several government authorities, including from technology, as well as central bank and financial supervisors

Action 1. Enhance credit reporting systems.[77]

CRS remain a vital part of a country's financial infrastructure to address the challenges of incomplete and asymmetric information between MSME borrowers and financial providers through comprehensive data-sharing mechanisms. Indeed, empirical evidence shows a positive impact between CRS and lending to MSMEs.[78] Robust CRS in turn can facilitate the emergence and development of additional services and tools to assess the credit risk of MSMEs, including credit scoring and credit ratings.[79]

The Implementation Framework of the First Action Plan provides a roadmap for the development of CRS that remains relevant; however, targeted additions are crucial to ensure that innovations can be adequately leveraged. Most G20 countries already have in place legal and regulatory regimes that are in line with such a framework and support the operation of CRS. Nevertheless, rapidly evolving innovations call for a reassessment of the scope of CRS. Specifically, vis-à-vis the innovations highlighted above, governments should consider two main interrelated actions:

- **Governments should expand the range of data in the credit information system to include alternative data.[80]** Many CRS still rely fundamentally on traditional credit data. Expanding their coverage to alternative data is critical to building the "credit" footprint or the "reputational credit" of MSMEs, especially those that have not yet made use of traditional sources of credit such as bank loans. In practice, this might require changes to laws and/or regulations aimed at authorizing the sharing of information between the originators of these data and those entities that are part of CRS, such as credit bureaus.[81] The types of alternative data to be included depend on country context. They can range from more structured data, such as utilities or mobile payments data, to unstructured data, such as social media and internet usage.
- **Governments should expand the range of participants to include nonbank financial providers.** As the sources of MSME financing diversify, it is critical that CRS also include data originating from alternative financial providers, and that such financial providers have access to the data collected by these systems. In practice, this might require changes to laws and/or regulations to expand and/or incentivize participation and access to the systems, while ensuring that traditional financial intermediaries do not pose obstacles to the entrance of alternative financial providers. The range of financial providers to be included depends on country context and can range from microfinance institutions to fintech lenders.

In addition, in line with the implementation framework for the initial Action Plan developed by the G20, governments should continue to work toward facilitating cross-border share of credit information.[82]

Action 2. Strengthen the enabling environment for asset-based financing, including collateral registries.[83]

The adoption of modern secured transactions laws, including factoring and leasing, along with the implementation of movable collateral registries that formalize and provide transparency to the priorities of lenders' claims, is critical to expanding asset-based financing.[84] As the empirical evidence shows, asset-based financing can help address some of the market failures hindering MSME financing, especially those stemming from the lack of "adequate" collateral.[85]

The Implementation Framework of the First Action Plan provides a roadmap, which remains relevant, for the development of the corresponding enabling environment for secured transactions and collateral registries that remains relevant. Many G20 countries already have in place the legal and regulatory framework for secured transactions and have implemented movable collateral registries. However, soft evidence suggests that in some countries the reforms might be incomplete. Regarding such a framework, key areas where progress seems lagging, and thus requires reinforcement, are (i) the need to ensure that the secured transactions laws and collateral registries cover all types of tangible and intangible assets, thereby enabling innovations in asset-based financing;[86] (ii) the need to implement notice-based filing systems, as this is critical for the efficiency of the registry; and (iii) the need to allow (and implement) out-of-court procedures for the execution of collateral.[87] Finally, the experience from different jurisdictions indicates the need to work toward interoperability of registries in countries where a unified single registry is not feasible, and to continue working toward the modernization of registries, in particular providing electronic access to reduce the costs incurred by potential lenders in assessing the existence of encumbrances over assets.

Action 3. Develop the legal and regulatory frameworks and supervisory practices for nonbank financial providers and for innovative financing solutions.[88]

Most G20 countries already have in place licensing regimes in line with the Basel Core Principles for banks. These regimes should allow the banks to use fintech, while managing the corresponding risks. For example, such regimes should contain provisions about the management of models' risks as well as other key operational risks such as data breaches, cybersecurity, and outsourcing. As most G20 countries already have such type of regimes in place, the priority for them is on monitoring and supervision, and providing guidance to financial institutions as needed to ensure that risk management requirements remain robust. For example, many financial supervisors have issued guidance on the use of credit scoring, as part of the framework related to model risk.

As noted earlier, banks alone are not likely to close the MSME financing gap. Nonbanking financial intermediaries play a key role in MSME financing by enabling MSMEs to diversify their financing sources.[89] Moreover, they can apply competitive pressure on other financial providers. Thus, it is critical that countries have in place the necessary frameworks to enable their growth and development. In deciding the range of intermediaries to support, governments should consider their own country context.

Many G20 countries already have in place legal and regulatory frameworks for a range of "brick and mortar" nonbank credit providers, such as microfinance institutions, cooperatives, and consumer lenders. There is no global standard approach for the regulation of different types of nonbank lenders. However, those that are deposit taking should be subject to regulation and supervision commensurate to the type and size of their transactions.[90] In practice, this means that licensing regimes should be aligned with the Basel framework, which in turn recommends a tailored approach for microlending activities. To the extent that such frameworks are not in place, they should be a priority. Otherwise, akin to the policy priorities for banks, the focus should be on monitoring and supervision, and providing guidance as needed.

For most G20 countries the added focus is on ensuring that their legal and regulatory framework allows the entry of purely "digital" financial providers.[91] In practice, this might entail reforms to the laws and/or regulations for existing types of intermediaries, such as commercial banks, to allow the entrance of digital players; or the development of bespoke regimes. For example, some countries have opted to use the existing licensing regime for banks and provide guidance/exemptions from specific requirements such as physical presence, while others have opted for creating a specialized license for digital banks. One important aspect to monitor is entry requirements, which should be proportionate to the undertaken risks, and thus should not constitute an entry barrier for alternative lenders. Similarly, many countries have opted to develop bespoke regimes for specific types of services. This is the case, for example, for lending platforms that operate in the capital markets space. These platforms function simply as intermediaries between MSMEs and investors, and thus many countries have found it necessary to develop specialized regimes with more proportionate requirements than those associated with traditional securities intermediaries.

Especially in countries with more developed capital markets, governments should review whether their laws and regulations allow the use of capital markets solutions to expand MSME financing, with instruments extending beyond plain vanilla bonds. As summarized earlier, in high-income countries and larger EMDEs, instruments such as securitization, debt funds, and minibonds could have an important role in expanding MSME financing. In addition, gender bonds could be an important instrument that financial providers can use to raise funding backed by their WMSMEs portfolios. Thus, depending on country context, governments should ensure that the corresponding regulatory framework is in place.[92]

Financial supervisors should develop their capabilities to enable timely review of supervisory practices to capture the risks introduced by fintech, new financial intermediaries, new business models, and new financial products. The development of the human talent of financial supervisors is critical in ensuring that countries can reap the benefits of fintech, while managing the risks they bring. In this context, and while recognizing the budget constraints they face, financial authorities should implement strategies and programs to ensure that their staff remains abreast and knowledgeable of key innovations, their benefits, and potential risks. Enhanced use of technology for supervision (Suptech) should also be considered, based on country context.

Action 4. Develop the enabling environment for equity financing.[93]

As indicated in previous sections, equity financing plays a critical role in the financing of innovation. For most MSMEs, access to debt financing would likely be sufficient to address their funding needs. However, for a subset of MSMEs, access to equity financing is crucial, either because their activities (highly reliant on research and development) are not likely to be financed through debt or because, for their expansion, debt financing is no longer sufficient (for example due to the level of leverage). Nevertheless, in many countries, particularly EMDEs, equity markets are underdeveloped, thus affecting MSME innovation and growth.

While many other factors are critical for MSME performance and growth, governments should ensure that the enabling environment for the development of equity financing is in place. For MSMEs, the basic components include (i) a framework that allows relatively smaller companies to raise capital without triggering the requirements of a public offering (i.e., via a private offering), (ii) a framework for the licensing or registration of fund managers, and (iii) a framework for private funds.

Depending on country context, governments should consider developing the enabling environment for equity crowdfunding.[94] This could be done via reforms to the existing framework for public and private offering or via bespoke regimes. Appropriate care needs to be taken to strike the right balance between providing small companies access to the capital markets and the need for investor protection.[95] In many countries this is being achieved by establishing very limited disclosure obligations on companies but, on the other hand, imposing maximum amounts of capital that can be raised, and investment limits for retail investors.

The necessary environment for SME markets should be implemented, particularly in countries with more developed equity markets. Governments should review the requirements for public offering to establish a proportionate regime for SMEs.[96] Listing requirements should also be made proportionate.

Action 5. Introduce simpler and less costly insolvency regimes for MSMEs.[97]

Efficient insolvency regimes help mitigate some of the risks associated with lending to MSMEs, especially the higher level of credit risk, by speeding up the resolution process, providing modern restructuring tools and better predictability of debt recovery. Research indicates that insolvency regimes provide lenders with greater certainty and predictability of the recovery of defaulted loans, thus allowing them to price the risk of defaults more efficiently and increase the provision of credit.[98] In addition to these benefits, they can support entrepreneurship by providing a fresh start to viable companies and entrepreneurs that have acted in good faith through restructuring procedures.

The Implementation Framework for the first G20 Action Plan provided a roadmap to improve insolvency regimes. Lessons learned, including those from the recent COVID-19 pandemic, indicate that most "ordinary" insolvency regimes do not work well for MSMEs, and in particular for MSEs, owing to some of the specificities of these businesses, such as mixing of business and personal finances. Furthermore, the absence of debt discharge, or a long time to discharge, can hinder a fresh start for honest failed entrepreneurs. Likewise, liabilities on personal assets may prevent timely filing for insolvency and reduce prospects for restructuring. Poor record keeping and lack of financial sophistication are a frequent problem for MSME restructuring, and creditor passivity and low value of assets often hamper a quick restructuring.

Therefore, the key priority action for all countries is the development of tailored insolvency regimes for MSMEs[99] with the objectives of (i) simplifying in-court insolvency proceedings to reduce their cost and complexity and (ii) providing access to out-of-court proceedings. Capacity building for key parties such as judges, insolvency practitioners, financial institutions and businesses should also be considered to ensure effective implementation.

Action 6. Implement measures to foster competition.[100]

Governments need to ensure that nonbank financial providers can compete on a level playing field with incumbent financial providers such as banks.[101] Many G20 countries already have in place regimes to monitor anticompetitive behaviors, usually through specialized agencies. From the perspective of financial regulation, ensuring the existence of proportionate regimes that do not create undue barriers for alternative financial providers to enter the markets remains a key priority, as indicated in the previous section.

The main action that governments should consider in relation to the financial innovations discussed earlier is the implementation of open finance regimes.[102] The implementation of open finance, or in some cases open banking, regimes is still at an early stage, and thus their true impact is still uncertain. However, these regimes hold the potential to significantly expand MSME financing and support financial inclusion more broadly,[103] allowing consumers to access their data (in the case of open banking from banks and in the case of open finance from a broad set of financial providers) and share it with third parties, which in turn can build applications that facilitate the provision of financial services. Common applications of open finance include (i) credit risk evaluation, (ii) easing customer due diligence, (iii) comparison services, (iv) aggregator services, (v) personal finance management, and (vi) payment initiation services, among others. The decision of whether to start with data held by banks or to implement from the start a framework covering all financial service providers should be made based on country context.

Governments can implement other measures to foster competition, including exploring innovative interventions, based on country context. The experience of some jurisdictions indicates that an environment of competition might sometimes be hard to achieve, even when a plurality of financial providers exists. In such contexts, policymakers may need to consider additional, proactive approaches that go beyond changes in the legal or regulatory environment. One of the key examples is fostering and/or participating in the development of electronic platforms to bring a plurality of financiers together and promote competition**.** Some EMDEs have implemented marketplaces for lending- or receivables-based financing, whereby development banks have been directly involved in the creation and operation of digital platforms to bring together a plurality of financial service providers to compete for MSME financing. No rigid criteria can be established, but aspects that governments need to consider are the level of competition for the corresponding MSME segment, and whether legal and/or regulatory measures to foster competition have been exhausted. Finally, governments need to ensure that the operation of these platforms does not introduce market distortions: issues such as entry criteria and fees need to be carefully assessed.

Action 7. Develop consumer protection frameworks to ensure responsible lending and adequate protection for MSMEs.[104]

Fintech has supported the development of several new financial products and delivery mechanisms for MSMEs, but MSMEs may lack information about the conditions relating to these innovations and may suffer from other vulnerabilities relating to the provider's conduct. For instance, the fee structure, the scope of data sharing, or the role of different parties might not be clear for MSMEs. This is of particular concern for smaller MSMEs, such as microenterprises and sole traders, which may face the same or similar information asymmetries and power imbalances as individuals acquiring credit for personal purposes.

Governments should ensure that a basic set of financial consumer protection measures applies to the provision of financing for smaller enterprises. In general, in most jurisdictions the framework for consumer protection applies to private individuals, but there is increased recognition that from a policy perspective it may be appropriate and justifiable to extend at least some financial consumer protection /market-conduct measures to smaller enterprises that face equivalent challenges**.** For example, there are good policy reasons in EMDEs for applying financial consumer protection measures to individuals as users of financial services, for both personal and business purposes. Such measures include (i) obligations on lenders to provide transparent, appropriately tailored and comprehensive information about the service they provide, including fees; and (ii) prohibitions on deceptive and fraudulent practices, along with the remedies and mechanisms for enforcement. In EMDEs, the information asymmetries between the users and providers of financial services, and other power imbalances, are typically as acute for microenterprises as for individuals (as microenterprises tend to be closely associated with their owner/principal). Thus, there is a need to apply consumer protection laws to individuals as users of financial services, including for both personal and business reasons. The expansion of consumer protection frameworks to small firms beyond the aspects highlighted above should be carefully evaluated.[105]

Financial consumer protection frameworks, including those for responsible lending, should apply equally to new and traditional providers of financing, and across all types of delivery channels. To the extent that countries have activity-based frameworks imposing such requirements, new financial providers should already be automatically covered by these frameworks—at least with respect to private individuals. However, amendments may be necessary to extend these requirements further to certain enterprises, as noted above. If the frameworks are institution-based, then changes to laws and/or regulations might be needed.

Governments should require robust risk management to address issues such as cybersecurity risks, and they should implement robust data privacy and protection frameworks, supporting the uptake of digital technologies and better access to finance.[106] As indicated under Action 3, increased digitalization heightens cybersecurity risks; thus, it is critical that robust requirements are in place. Overall, data privacy and protection frameworks apply to individuals, as they focus on personal information or data, regardless of whether this is generated for personal or business reasons. In many countries, financial sector laws, as well as other types of confidentiality laws, add a layer of protection to information belonging to companies and other legal persons. These frameworks include, for example, laws restricting the unauthorized sharing of financial customers' information, or laws restricting the sharing of certain information provided in confidence.

Action 8. Ensure that robust foundational infrastructure is in place.[107]

Basic digital infrastructure and digital financial infrastructure, in particular digital public infrastructure (DPI)[108] are key components of the ecosystem that enable the development and adoption of fintech and the development of alternative fintech lenders.[109] Basic digital infrastructure, including access to mobile phones and the internet, enables digital connectivity, a prerequisite to the adoption of digital financial services. Anchored on this basic Information Technology infrastructure, DPI can further support the adoption of fintech by financial intermediaries to propel MSME financing. Three sets of DPI are considered critical: digital ID,[110] digital payments,[111] and data exchange in the financial sector.[112] Digital IDs are particularly important for microfinance institutions, as their financing is closely linked to the financing of their owners. Digital IDs not only allow easier access to financial services but can help track the digital footprint of individual owners of microenterprises, which in turn can be used for their credit assessment. Similarly, digitalization of payments allows MSMEs to create a digital footprint, which can be used to enhance assessments of creditworthiness, and supports the use of financial services in remote areas, as it reduces the dependence of MSMEs on access to physical branches. A growing body of evidence shows that interoperable mobile money, faster payments, and other systemic interventions in the digital payment space can indeed improve access to finance.[113] Finally, data exchange DPIs can enable fast and seamless sharing of information, including MSME information, which in turn can support the provision of financing. Furthermore, creating MSME "data sharing schemes" between public authorities that hold information on MSMEs and financial intermediaries will make it easier and less costly for banks and other financial institutions to check the creditworthiness of MSMEs. In this context, governments should review their level of implementation of the G20/GPFI/World Bank Group recommendations on DPIs to see whether specific actions are needed to support their development. [114]

Governments should provide broader support for MSME digitalization.[115] The integration of digital technologies into various aspects of MSME operations can support greater access to finance. For instance, online MSME registration can support MSME access to finance by increasing the efficiency of customer due diligence processes, whereas digital accounting and bookkeeping can enable real-time tracking of financial performance, thereby enabling a more robust digital footprint for MSMEs.

3.2 Vertical Policy Support: Enhancing Targeted Interventions

Targeted financial interventions should be part of the toolkit of government authorities to accelerate MSME access to finance.[116] The fintech innovations in the MSME finance space and the core policy actions to support the enabling environment recommended above will go a long way in tackling many of the challenges affecting MSME financing. However, the experience of HICs and EMDEs indicates that, in many cases, these will not be sufficient to address challenges affecting MSME financing, especially those related to the higher risks associated with MSMEs or incomplete markets; in both these cases, targeted financial interventions can play a crucial role. Regarding the higher risk factor, targeted financial interventions can foster private financing for MSMEs through de-risking or risk-sharing mechanisms that either create investment opportunities or align existing ones with acceptable risk-return profiles for financial providers in both debt and equity markets. Regarding the challenge of incomplete markets, targeted financial interventions can provide long-term financing to financial intermediaries, especially nonbank ones, boosting their ability to serve MSMEs.

Countries in both HICs and EMDEs have used different types of targeted financial interventions to accelerate access to finance by MSMEs. The main types of interventions deployed are (i) lines of credit provided by the government to different types of financial intermediaries, so that they, in turn, lend to MSMEs. In some cases, particularly in EMDEs, direct lending is also used whereby a development bank or public institution provides lending directly to MSMEs; (ii) partial credit guarantees and other de-risking solutions (such as facilities providing first/second loss capital provisions), initially deployed in the context of loans but more recently used also in the context of capital markets instruments; and (iii) investment programs, usually focusing on early stage and venture capital, but more recently used in the context of newer solutions for MSME financing, such as lending platforms and debt funds. Concessional financing and other credit enhancements have sometimes been used while deploying these interventions. In addition, in the context of equity financing, investment programs in many countries have been accompanied by other types of targeted financial interventions to support the ecosystem, such as the use of performance-based grants for incubators and accelerators. Tax incentives have been used to encourage investors to invest in VC and small non-listed companies.[117]

Not all countries require the same types of interventions. Decisions should be guided by the type of MSME targeted (e.g., whether micro or SME), the type of financing needed (e.g., debt or equity), and the market failures impacting financial providers' ability and willingness to reach these firms (e.g., high credit risk, lack of collateral, lack of long-term financing). Additionally, the structure and development level of the financial sector should be considered, as this may render certain interventions unfeasible in some jurisdictions. In practice, this means that the design of the targeted interventions could vary significantly across countries and more than one intervention might be needed to tackle existing challenges. Prioritization, therefore, requires a careful assessment of the trade-offs between different interventions, including their alignment with the government's development goals and their budget implications. This includes considering not only initial fiscal costs but also the potential need for sustained support. In conducting these assessments, governments can use their convening power to bring to the table different stakeholders, including different agencies involved in MSME financing, different financial providers, as well as the MSMEs themselves, to better understand the challenges in reaching MSMEs and, thus, help enhance targeted interventions. Table 2 provides an overview of the types of financing and market failures that each intervention seeks to address, and guidance regarding applicability across countries at different levels of development[118] for different types of MSMEs.

Table 2. Main Types of Targeted Financial Interventions

Type of financing	Type of intervention	Market failure	Applicability (relevance) across countries	Relevance to expand financing across MSMEs
Debt financing	Lines of credit that can be extended to different types of financial providers	Lack of access to long-term financing and/or liquidity constraints for financial providers; incomplete and/or missing markets	All types of countries	Can be used to expand financing for different segments of MSMEs depending on the range of eligible financial institutions
	De-risking facilities for financial providers (e.g., guarantee schemes)	High credit risk; lack of collateral of MSMEs; Limited capabilities among financial providers to engage with MSMEs	All types of countries, but requires a certain level of maturity of institutions	Can be used to expand financing for different segments of MSMEs depending on the range of eligible financial institutions
	De-risking facilities for capital markets products (e.g., bonds issued by financial institutions, MSME loan securitizations)	High credit risk; incomplete markets	More relevant for countries with relatively well-developed corporate bond markets	Can be used to expand financing for different segments of MSMEs, depending on the range of eligible financial institutions/products
	Investment programs in capital market products (e.g., debt funds, MSME loan securitizations)	Incomplete and/ or missing markets; diversification of financing sources	More relevant for countries with relatively well-developed mutual funds industries and corporate bond markets.	Can be used to expand financing for different segments of MSMEs, depending on product to which the investment program is applied
Equity financing	Investment programs	Incomplete and/or missing markets	Potentially all countries, but difficult to achieve market creation and private capital mobilization sustainably in countries with under-developed equity markets	Due to fiscal costs, calls for focused targeting approach on innovative MSMEs and MSMEs with high growth potential
	Complementary interventions such as performance-based grants that can be given to incubators and accelerators	Incomplete and/or missing markets	All countries, but critical to do an assessment of the whole ecosystem to assess impact of the intervention	Relevant for financing of innovative start-ups

Careful design and implementation of targeted interventions is critical. Targeted financial interventions usually entail sizable fiscal costs. Thus, it is crucial that they effectively target underserved MSME segments. Cross-country experiences suggest that there are four inter-related challenges: (i) a lack of clarity in the objectives of the interventions; (ii) inappropriate targeting, in terms of the eligibility of both the MSMEs and the financial intermediaries used as delivery partners; (iii) deficiencies in monitoring and evaluation frameworks; and (iv) fragmentation of interventions across multiple ministries and government agencies (including development finance institutions). All these challenges can lead to gaps in support policies or the duplication of efforts, resulting in inefficient use of public resources.[119]

This Action Plan provides a set of recommended actions to enhance the effectiveness of targeted financial interventions that government authorities can adopt when implementing such interventions. The recommendations ensure that targeted support policies are well-suited to individual country contexts and calibrated to address the specific market failures and frictions in the marketplace, while mitigating the common pitfalls of targeted interventions. Thus, these recommended actions are useful for any government authority planning to implement a targeted financial intervention for MSMEs.

Action 1. Improve MSME data collection.[120]

Many governments, including G20 jurisdictions, still face substantial data gaps that hinder their ability to implement effective targeted interventions in the MSME space. As noted above, policymakers need to consider their country circumstances and prioritize evidence-based interventions that address the challenges affecting MSME financing. To do so, firm-level information needs to be available and accessible. Importantly, access to data supports not only the decision-making processes of policymakers, but also those of financial providers and MSMEs themselves.

It is critical that governments prioritize the development of data frameworks to enhance the availability, access, and quality of firm-level data, including not only firm financing but also firm performance, among others. One important initiative is the conduct of frequent firm-level surveys and collection of granular data from financial institutions. Importantly, the adoption of standardized national definitions of MSMEs and a definition of MSME finance are instrumental to enhance data collection processes and improve data quality. Many countries have already done so, but government authorities in a few countries still arrive at more than one definition. Standardization ensures that the information is consistent and comparable across firms and over time, allowing policymakers to design more effective support measures, tailored to the needs of MSMEs, and to measure their impact. Similarly, gender disaggregated data are critical to setting and tracking progress toward gender targets. Thus, governments should also work toward establishing standardized definitions for WMSMEs.

Governments should consider other initiatives that can complement primary data collection. One example is MSME observatories that can help consolidate data from various public entities, providing a comprehensive understanding of the MSME sector. This enhanced data infrastructure will enable stronger evidence-based policy decisions, ensuring that interventions are both feasible and impactful in addressing the financing challenges faced by MSMEs.

Action 2. Rely on thorough diagnostics for the design of targeted financial interventions.[121]

A rigorous, data-driven diagnostic assessment of the key constraints to MSME finance and their underlying causes (such as market failures), within the context of individual countries, is critical to ensuring that interventions are well-targeted. As indicated earlier, there is significant diversity among MSMEs—from small family-run businesses to high-tech firms nearing public offerings—meaning that such enterprises face varied challenges in accessing finance. An efficient use of government resources, therefore, requires that interventions are well-targeted. This requires governments to conduct diagnostics that have an embedded gender lens which should be anchored on proper segmentation of MSMEs, allowing for better identification of their financing needs (i.e., working capital, long term financing) and of the key challenges hindering the ability of financial providers to serve them. The diagnostics should support the analysis and selection of the types of targeted financial interventions that can best address such challenges. Diagnostic assessments are also important for prioritizing and sequencing an appropriate set of public policy interventions, helping identify, for example, practical constraints in the deployment of specific support policies: certain targeted interventions, such as support for asset-based financing, may need to be accompanied by other policies to develop the required enabling environment (e.g., policies to develop collateral registries).

Box 4. Designing Targeted Interventions to Address WMSMEs and Youth-Led-Business Constraints to Access Finance

WMSMEs

When designing interventions to increase women's access to finance, the focus should be on those market failures and constraints that are either unique or more acute for women compared to men. For example: (i) higher perception of risk by investors/lenders, coupled with a lower access to collateral; (ii) limited access to information and networks; and (iii) limited physical mobility.[122] It is also important to consider the desired targeted segment within the entrepreneurship spectrum, as not all WMSMEs are the same.

The same type of targeted financial interventions used for MSMEs can be used in the context of WMSMEs. However, for them to be effective, it is important to consider whether and how elements of the design should be adjusted; and how these instruments or programs are delivered (e.g., format, channel).[123]

In terms of financial providers, for example, alternative lenders have proven to play a key role in the financing of underserved segments, including WMSMEs.

Similarly—although specific challenges remain in achieving greater uptake among women—fintech has enormous potential for expanding WMSME access to finance by allowing (i) the development of financial products with a more limited reliance on immovable collateral, and (ii) digital distribution, which can make a significant impact in addressing mobility constraints still affecting women in some countries due to social norms.

For WMSMEs across the entrepreneurship spectrum, complementary nonfinancial services to increase firm capabilities are crucial, and the capacity to tailor the content and delivery format of these services is paramount.

A big challenge for projects that target women entrepreneurs is the lack of standardized definitions of WMSMEs; this is relevant both for designing interventions and for reporting on results, as it poses challenges when collecting gender disaggregated data.

Source: Carvajal and Didier 2024

Youth-led businesses

A global stocktaking of targeted programs that finance youth entrepreneurs profitably and sustainably yielded three key lessons:

- Evidence-driven diagnostic assessment of the riskiness and financial behavior of youth entrepreneurs in a given market enables financial providers to better serve the segment. Assessment methods should be diverse and may include focus groups, individual interviews, or large-scale surveys. In addition, governments should ensure the availability of diverse, up-to-date data that are disaggregated by age. Making such data available to lenders can help tailor products to the needs of youth entrepreneurs, as well as improve screening processes. Although this diagnostic research can be costly and time-consuming, costs can be mitigated through partnerships.

- Targeted financial support may be required, especially in markets with large unemployed youth populations. For example, to address the high riskiness of the segment, governments can act as guarantors for financial-sector loans to youth entrepreneurs. Governments also can motivate lenders to finance youth entrepreneurs by providing them with tax breaks after successfully meeting targets in order to maintain a certain proportion of youth clients in their portfolios. In all cases, measures should be carefully piloted and include strong monitoring systems to safeguard against unintended distortions.
- Comprehensive nonfinancial targeted interventions can be used to complement financial support. Such interventions typically help youth entrepreneurs overcome other barriers, such as lack of education and business experience. For instance, mentoring and entrepreneurship education—including financial literacy and business training—can provide youth with the necessary social and emotional competencies and technical skills to establish and grow their businesses. Moreover, customized training to suit the needs of youth and industry can yield more effective results, ensuring context-specific curriculum and delivery mechanisms to increase knowledge transfer. Institutional partnerships between financial providers and youth-focused organizations tend to be an effective model, especially when there are institutional capacity constraints.

Source: GPFI 2020

Action 3. Focus on financial additionality, in particular private capital mobilization.[124]

Targeted financial interventions should aim not only to increase the supply of financing for underserved segments, but also do this in a way that mobilizes additional private financing; this objective should become a core feature of targeted financial interventions to the extent that the fiscal space of government to support MSMEs is limited. Thus, the guiding principle should be for governments to implement these interventions through "wholesale" models, leveraging financial intermediaries and leaving to these intermediaries the decisions about the specific firms that would benefit from financing, based on their own risk assessments. This would help ensure that public support is directed toward firms whose prospects have been evaluated on a commercial basis.

As a corollary, governments should use direct lending programs only in exceptional circumstances, as these interventions rarely lead to private capital mobilization and could have the opposite effect, i.e., creating distortions that disincentivize commercial financing. As many EMDEs still make significant use of direct lending, it is critical that they revise this approach.[125]

From an operational perspective, it is challenging to ensure that public interventions bring in new private funding, while not displacing existing private investments. Authorities should conduct market analyses to understand current private-sector financing levels and estimate the potential crowding in impacts of public interventions, including conducting simulations, as appropriate. The use of public funding should be restricted to the minimum necessary to achieve the stated objectives, while minimizing the potential for moral hazard.

In countries with less developed financial sectors, achieving sustainable private capital mobilization might require additional actions from governments aimed at "creating markets." For example, governments can pilot specific financing solutions to fill market gaps through demonstrating effects. That is, by showing private financial providers that such solutions are viable in the marketplace. To credibly demonstrate the viability of solutions, one best practice is to foster data collection and disclosure of performance to show the return and risks of the solutions. As further discussed below, in countries where interventions need to focus on market creation, there might be the need to complement targeted financial interventions with others, such as interventions to enhance the capabilities of MSMEs and financial providers to achieve sustained impact.

Action 4. Use concessional financing sparingly to avoid unintended consequences.[126]

Depending on country context, concessional financing (to financial intermediaries or to the MSMEs themselves) might be necessary to support MSME access to financing. However, concessional finance can lead to unintended consequences. For example, if provided to the MSMEs, it could alter the incentives for financing at commercial terms, and thus it might hinder the development of private markets. If provided to financial intermediaries, it might create a moral hazard, thus reducing the incentives for financial intermediaries to conduct a proper credit assessment. Therefore, governments must carefully evaluate whether market failures justify the use of concessional finance, the potential distortions this may cause, and the mechanisms to mitigate such risks. If considered essential to achieve government objectives, concessional financing (and the use of public funding more broadly) should be (i) targeted, (ii) structured in the least distortionary manner possible, (iii) transparently funded, (iv) fiscally sustainable, and (v) temporary (depending on the objectives of the intervention), with "graduation" targets for both MSMEs and financial providers embedded into the intervention. The recurrent use of concessional financing support policies should prompt a reassessment of the broader policy environment to determine if additional measures are needed to move the market toward financing on commercial terms.

Action 5. Harness donor developmental finance to stimulate and mobilize private capital.[127]

A wide range of countries have benefitted from developmental finance to close the MSME finance gap, including to support underserved sectors such as WMSMEs. This support has been channeled through different instruments, such as grants, de-risking or risk-sharing mechanisms, and capacity building activities. Existing initiatives differ in their targeting of MSMEs (whether for all, or for a particular underserved sector such as agri or WMSMEs), objectives (for example, many recent initiatives focus on climate finance), scope, and type of financing targeted (whether debt or equity financing). But increasingly they are aligning with the overall objective of mobilizing additional private capital for MSME financing. The mechanisms to achieve such mobilization vary, but many initiatives seek to provide a holistic solution, combining incentives and/or de-risking mechanisms for financial providers to reach and scale up their financing to MSMEs, with capacity building for financial providers and MSMEs. Furthermore, many of these initiatives serve as pilots for new solutions and products that can later be mainstreamed. Accordingly, going forward, governments in EMDEs should work with the development community to ensure that, in designing and implementing their own financial support program, they leverage these initiatives through a blended finance approach[128] to make the best use of public financing.

Action 6. Leverage nonfinancial targeted interventions.[129]

For many countries, upgrading the capabilities of MSMEs is key to improving their access to finance.[130] In many countries, a key constraint for expanding financing to MSMEs is the lack of a pipeline of "bankable" or "ready to invest" firms. Thus, increasingly, governments should consider the deployment of programs to upgrade the capabilities of MSMEs along with their access-to-finance support programs. These programs to upgrade capabilities need to be tailored to the nature and requirements of MSMEs**.** In general, microenterprises tend to benefit from business training and financial management coaching, while high-tech startups may need accelerators and investment readiness programs. Established MSMEs can gain from programs supporting the development of managerial capabilities, including business planning, financial training, and branding and marketing training, whereas MSMEs with high growth potential might also benefit from support to integrate into networks and company growth programs. These interventions help MSMEs understand and monitor their financial performance, among other benefits such as overall improvement in performance, therefore assisting them in becoming more attractive to financial providers. Start-ups benefit from "investment readiness" programs. In addition, a gender lens should be integrated into capacity building initiatives; evidence indicates the need to incorporate soft skills (in addition to hard skills training) in capacity building programs for WMSMEs.[131] MSMEs' capacity building support often requires subsidies, as MSMEs typically cannot afford these services on their own.

Depending on country context, government authorities may consider implementing programs to enhance the capabilities of financial intermediaries and investors.[132] For financial intermediaries, such programs can be crucial for expanding and diversifying funding sources. For example, training alternative lenders in key operational areas like risk management or introducing new products such as asset-based financing can help them better serve MSMEs. These initiatives can also benefit smaller banks, promoting competition within the financial sector. While most existing programs focus on debt financing, they might also be needed to foster equity financing, especially when developing a domestic fund management industry. Additionally, capacity building programs for institutional investors, such as pension funds, are important in the context of capital market solutions for MSMEs. These programs can increase awareness and understanding of new financial instruments and their associated risks, thereby fostering a more supportive investment environment for MSMEs.

Governments should also consider setting specific targets for MSMEs in digital literacy, financial literacy, and financial education programs (see Box 5).[133] One of the primary goals of such programs is to equip MSMEs with the knowledge and skills to navigate a complex array of financing products and to make sound financial decisions. As noted above, fintech is increasing the complexity of the landscape for MSME financing, calling for enhanced financial literacy support, especially among under-served MSMEs. Importantly, programs need to be targeted to the specific needs and challenges of different MSMEs, including those faced by WMSMEs. One important step in this regard relates to Actions 1 and 2 in this section, which call for policymakers to identify support needs through data collection and diagnostics analysis, which will likely vary depending on country context.[134]

Box 5. Targeting Financial Literacy for MSMEs

The OECD Recommendation on Financial Literacy sets out a series of measures for governments, public authorities, and other stakeholders regarding the design, implementation, and evaluation of financial literacy programs. The Recommendation specifically highlights micro and small entrepreneurs as a target group for financial literacy, including by:

- using financial literacy to support access to finance, and business growth and sustainability;
- making financial literacy a core component of the support provided in "one-stop-shops" for micro and small businesses, where these exist;
- combining financial literacy with access to finance, such as considering making the attendance of financial education programs by micro and small entrepreneurs a pre-requisite for their eligibility as receivers of public financing support schemes;
- leveraging the expertise and mentoring capabilities of financial services providers and their associations;
- supporting clusters and networks of micro and small businesses for knowledge transfer and diffusion, capacity building and mentoring.

Source: OECD Recommendation of the Council on Financial Literacy 2020

Action 7. Enhance monitoring and evaluation of targeted interventions.[135]

Monitoring and evaluation frameworks allow governments to assess whether interventions are achieving the desired objectives and to correct course when needed. In an environment of increased limited fiscal resources, such frameworks are also a critical element of accountability. In the short term, government actions should focus on establishing clear and trackable performance indicators. Over the medium term, governments should establish robust frameworks for independent monitoring and evaluation.[136] These frameworks should be grounded in robust data systems and employ well-established evaluation techniques, such as the adoption of control groups to assess program impact (both in terms of their financial additionality and their economic additionality). Methods that use control groups can be built into the design phase of programs to assess their impact on an ongoing basis, rather than solely at the end of the program. Similarly, the use of technology can support real-time evaluation and monitoring, providing policymakers with up-to-date information to make informed decisions and adjustments, as required.

Action 8. Improve coordination and ensure proper governance.[137]

Multiple government departments and public agencies are often involved in designing and implementing targeted financial interventions to support MSME financing. For instance, different government ministries, such as those overseeing industrial development, agriculture, and innovation, might each be responsible for interventions targeting specific underserved MSME segments. This can result in the creation of separate initiatives, which might not always be well coordinated and could result in gaps and/or overlaps in support policies.

Governments should ensure effective coordination across initiatives by developing a comprehensive strategy for MSME financing; this should have a fully integrated gender lens, anchored in proper segmentation, and should consider the role of different public entities in this space to ensure the design of coherent policies and programs, establishing appropriate coordination mechanisms, such as coordination committees to manage day-to-day operations. In EMDEs, these strategies should take into consideration the existence of donor support, and include mechanisms for coordination with donors, as appropriate.

Box 6. Preliminary Insights to Expand MSME Access to Climate Finance

This box has been included as an acknowledgment of the emerging need for MSMEs to access finance to support their mitigation and adaptation investments. Including the topic of climate adaptation and mitigation for MSMEs serves as a contextual acknowledgment of its relevance as recognized by the GPFI. However, discussions and policy developments concerning climate finance fall under the purview of other specialized streams and working groups within the G20, particularly those focused on climate and energy. To preserve the GPFI's focus on financial inclusion and avoid duplication of efforts, this section should be viewed as providing context, with any further exploration to be aligned with and supported by relevant G20 groups and initiatives.

Access to climate finance is becoming increasingly important for MSMEs. Climate change has created two additional sources of risks for MSMEs: physical risks and transition risks. Regarding physical risks, the increasing frequency and intensity of natural disasters pose critical challenges for MSMEs, given their limited ability to cope in such situations. Regarding transition risks, while MSMEs typically have a small individual environmental footprint, their collective impact can arguably be more sizable.[138] Furthermore, the transition to a low-carbon economy imposes additional competitive pressures on MSMEs to adopt sustainable practices, and to measure and report on their sustainability performance to financing providers and large enterprises in their supply chains. This can be challenging for MSMEs with limited resources and capacities, particularly in EMDEs. Without adequate access to finance to fund investments for adaptation and mitigation, and relevant capacity building and other nonfinancial support, these enterprises remain vulnerable to increasing risks from climate change: they may lose access to markets, especially due to increasing demand from global supply chains; and they may lose access to finance more generally if they are unable to disclose and report Environmental, Social, and Governance information, as the financial sector is increasingly being called to imbed climate risk in their risk management frameworks.[139] Furthermore, the overall survival of MSMEs may be at risk if they are unprepared to deal with climate change events. To overcome barriers that hinder the flow of financing to address climate change risks, governments might consider policy interventions to encourage investments in sustainable practices and attract private financing. Access to climate finance can, in turn, open opportunities for additional financing for MSMEs.

First, the role of an adequate enabling environment for climate finance is critically important. Information gaps and inefficiencies exacerbate the uncertainties and perceived risks associated with climate-related investments. Limited climate-related data and knowledge hinder MSMEs' ability to manage risks effectively and make informed investment decisions. The (still relatively) underdeveloped financial infrastructure for climate investments, including a lack of standardized metrics and reporting frameworks, adds to this complexity. Without clear standards and reliable information, transaction costs increase, and the risk of greenwashing rises.

This not only reduces the attractiveness of climate investments but also complicates efforts to mobilize private capital. This puts a premium on policies to support the development of the required financial infrastructures to create an enabling environment for sustainable investments. These would include the development of taxonomies that account for both sustainable and transition activities, and the adoption of disclosure standards that are proportionate to MSMEs' resources and capacity. The G20 Working Group on Sustainable Finance has been looking in particular at the issue of disclosure requirements and how to make them proportionate to avoid unintended consequences for MSMEs.

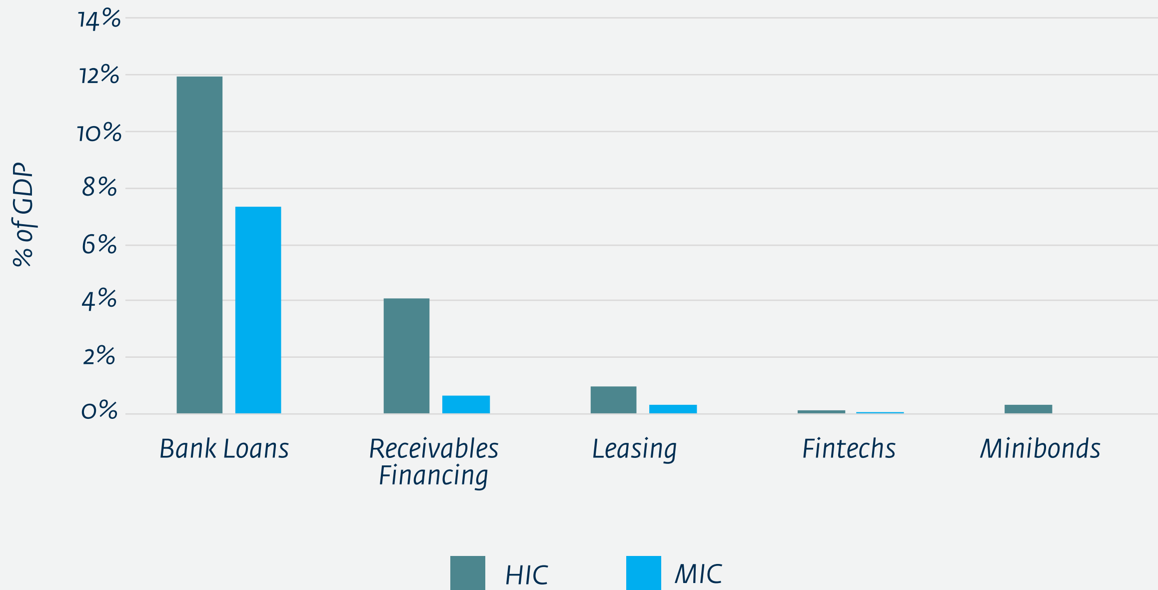
In addition, targeted financial interventions may help increase the flow of climate finance, as this type of financing is marked by unique market failures that can lead to underinvestment. Traditional barriers affecting MSME financing are compounded by additional challenges such as misaligned incentives due to externalities and the absence of effective pricing mechanisms for environmental benefits. For instance, the benefits of green investments often extend beyond individual firms to society at large, but these positive externalities are not fully priced. Furthermore, the high upfront costs and long payback periods of mitigation and adaptation investments, coupled with the high uncertainty of climate-related risks, discourage both MSMEs and financiers from pursuing these opportunities. Therefore, targeted financial support and risk-sharing mechanisms may help with incentivizing such investments.

To better support MSMEs in their climate adaptation and mitigation efforts, governments may consider aligning targeted interventions (both financial and non-financial) with broader national climate strategies tailored to the specific needs of different MSMEs. Specifically, to address the physical risks faced by a wide range of MSMEs, governments may consider adopting a "bottom-up" approach, with widespread outreach to MSMEs through localized solutions and enhanced risk management strategies. Conversely, governments may consider a "top-down" approach for MSMEs facing high transition risks, focusing support programs on MSMEs in the value chains of large exporters. Importantly, governments need to balance mitigation and adaptation efforts to their own local contexts as well as the scope of risks that MSMEs are facing in their own countries.

Annex: Debt and Equity Financing for MSMEs

Figure 1: Debt Financing for MSMEs Around the world

Total Outstanding Volumes as % of GDP, 2020



Source: World Bank (forthcoming)

Figure 2: Equity Financing Around the World

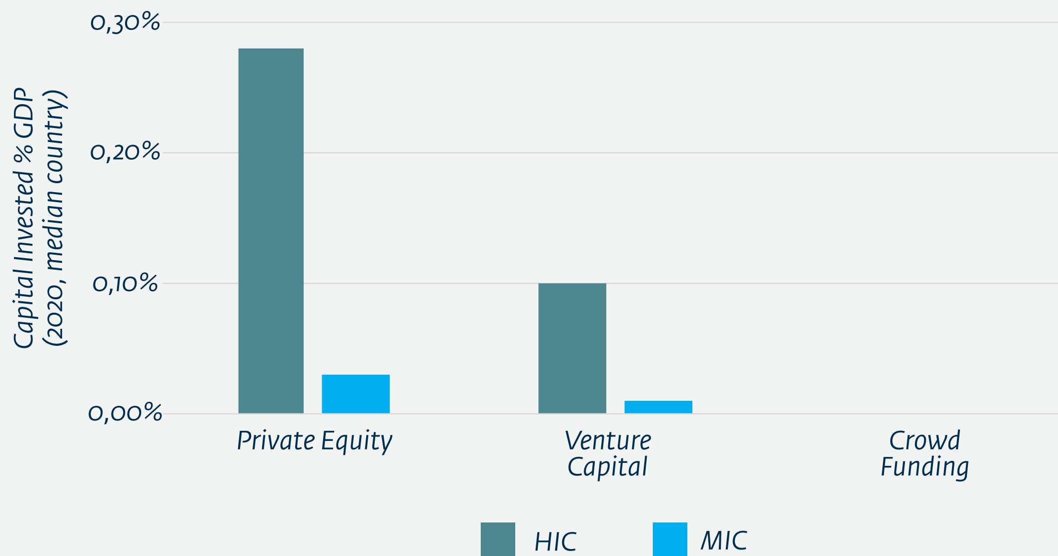
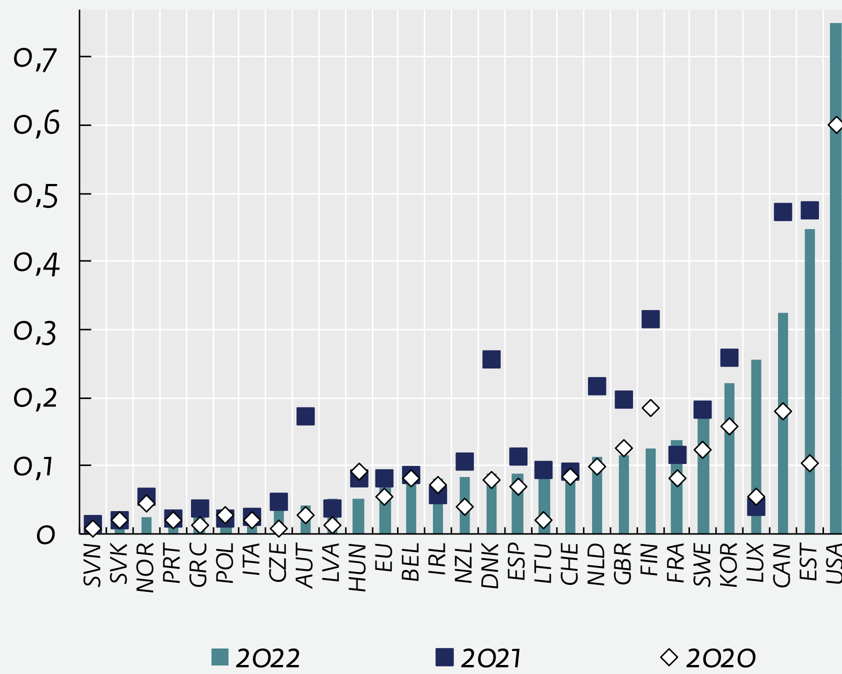


Figure 3: Venture Capital Volumes in Selected Countries Volumes as a Percent of GDP



Note: 2021 data from the United States do not appear in the graph due to the scale used: in 2021, the United States VC volume as a percentage of GDP was 1.1%.

Endnotes

Endnotes

1 See International Finance Corporation (IFC) (forthcoming).
2 See Carvajal and Didier (2024).
3 MSMEs represent roughly nine of out 10 businesses globally. Among OECD countries, they represent about 70% of total employment and contribute to 50-60% of the value added to GDP (Organisation for Economic Co-operation and Development, 2023a). Estimates for EMDEs indicate that MSMEs account for more than 50% of employment and contribute to 40% of GDP. See, for example, Ayyagari et al. (2007, 2014), the International Labour Organization (2019), and the SME Finance Forum's MSME Economic Indicators Database 2019.
4 There is no standard definition of MSMEs. Most countries use the number of employees, assets, and revenues, either separately or concurrently, as defining criteria, although the thresholds vary across countries. For example, the OECD and the European Commission define MSMEs as those firms with fewer than 250 employees. The World Bank Enterprise Survey defines microenterprises as businesses with fewer than five employees and SMEs as those with fewer than 250 employees. IFC (2017) defines MSMEs based on three criteria: employees, assets and sales. To be in a specific category, an enterprise must meet two of three thresholds. Micro enterprises: fewer than 10 employees, and less than a $100,000 in total assets and annual sales. Small enterprises: 10-300 employees; between $100,000 and $15 million in total assets and annual sales. Medium size companies: 50-300 employees, and between $3 and $15 million in total assets and annual sales.
5 See IFC (forthcoming). Recurrent constraints around lack of available data limit the ability to estimate the gap more frequently, as well as to provide a disaggregation of the supply and demand of formal finance by size, gender, and across sectors.
6 See IFC (forthcoming)
7 See results of the World Bank COVID-19 Business Pulse Survey, which was rolled out in 34 countries after the onset of the COVID-19 pandemic, to study whether firms that had access to external sources of finance were in a better position to overcome the pandemic shock compared to financially constrained firms. See World Bank (forthcoming).
8 See OECD (2020).
9 This research is based on the COVID-19 Business Pulse Survey, which was rolled out in 34 countries after the onset of the pandemic, to study whether firms that had access to external sources of finance were in a better position to overcome the pandemic shock compared to financially constrained firms. See also Carvajal and Didier (2024).
10 See OECD (2021a).
11 See OECD (2023c).
12 See OECD (2024).
13 See Carvajal and Didier (2024).
14 See Cortina et al. (2021).
15 See United Nations Department of Economic and Social Affairs (UNDESA) (2020)
16 See Carvajal and Didier (2024).
17 See OECD (2022a).
18 The G20 GPFI member countries committed to reforming credit infrastructure areas and monitoring progress biennially, using a baseline report as a benchmark to measure advancements in the three areas.
19 See for example, Global Partnership for Financial Inclusion (GPFI)/IFC (2011), G20 (2015), G20 (2016), G20/OECD (2022), GPFI/World Bank Group/SME Finance Forum (SMEFF)/G20 (2017), GPFI/G20 (2016), GPFI/SMEFF/IFC/World Bank Group/G20 (2020), World Bank Group (2022), GPFI/SMEFF/IFC/G20 (2023), and World Bank Group in Carvajal and Didier (2024).
20 GPFI/G20 (2023)
21 See for example OECD (2021c).
22 See for example De la Torre et al. (2017).
23 For an example of how these market failures affect the agriculture sector, see Carvajal and Didier (2024).
24 See for example OECD (2018); Huang et al. (2014).
25 See for example Dvorský et al. (2018).
26 See for example Fama and French (2002) and Coleman et al. (2013).
27 See for example Prihantoro and Nuryakin (2020).
28 See for example Ayyagari et al. (2017); Sullistay and Darwanto (2016).
29 See for example Meitriana et al. (2022). Furthermore, limited financial competencies can discourage even "bankable" businesses from applying for credit. See Calcagno et al. (2024).
30 See OECD, (2015b).
31 See for example, Finaldi Russo et al. (2024).
32 See OECD, (2024), OECD (2023e), OECD/European Commission (2023), OECD (2021b).
33 A summary of the global evidence on the causes of the credit gap can be found in Cirera and Qasim (2014).
34 Pavlova and Gvetatdze (2023); and Alibhai et al. (2019).
35 See Morsy et. al. (2019); and Ongena and Popov (2015).
36 See for example Chong et al. (2013), Liang et al. (2024), Malhotra et al. (2007), Love and Peria (2015) and Leon (2015), among others.
37 See for example United Nations Economic and Social Commission for Asia and the Pacific (UNESCA 2017), European Parliament (2019), OECD (2018), among others.
38 For example Hau et al. (2019), Balyuk et al. (2020), Balyuk (2019), Cornelli et al. (2022), Di Maggio & Yao (2021), Jagtiani et al. (2021), Jagtiani & Lemieux (2018), Schweitzer & Barkley (2021), Erel & Liebersohn (2020), De Roure et al. (2022) found that fintech lenders serve riskier borrowers than banks. In contrast Beaumont et al. (2020), Eça et al. (2022), Tang (2019) found that fintech lenders lend to borrowers with similar profile than banks.
39 See for example Jagtiani and Lemieux (2019), Suryanto et al (2020) and Chandraningrat et al. (2021), among others.

40 OECD/European Commission (2022).
41 The use of DPIs is, among others, supporting further digitalization of lending processes, by streamlining e-KYC through digital ID systems, making consent-based access to firms' financial data available for underwriting, which in turn can support the development of innovative solutions for MSME financing.
42 See for example Feyen et al. (2022).
43 See Bank for International Settlements (2021).
44 See for example IFC (2020) and Accion (2022).
45 See Sanga & Aziakpano, (2023).
46 See for example GPFI/SMEFF/IFC/G20 (2023) and World Bank Group (2022).
47 See Huang et al. (2021), Jagtiani & Lemieux (2017).
48 See for example Feyen et al (2022), Saal (2021).
49 See GPFI/SMEFF/IFC/G20 (2023).
50 See for example Cambridge Centre for Alternative Finance/World Bank Group/World Economic Forum (WEF) (2022).
51 See GPFI/SMEFF/IFC/G20 (2023).
52 See for example World Bank (2019).
53 See for example Sonja et al. (2021).
54 For example, estimates indicate that EMDEs have 200 million more male than female cell phone owners. See Global System for Mobile Communications Association (GSMA) (2020).
55 See Consultative Group to Assist the Poor (CGAP) (2022).
56 See De Roure et al. (2022).
57 See for example Walthoff-Borm et al. (2018).
58 See Robano (2018).
59 See World Bank (2020).
60 See Feyen et al. (2022).
61 See Carvajal et. al (2020).
62 See Carvajal and Didier (2024). Such dominance by the banks arguably reflects the competitive advantages of their business model, for instance, their access to relatively cheap funding from deposits and their ability to cross-sell and bundle products.
63 Studies have documented an accelerated growth in SME uptake. For example, between 2019 and 2020, volumes of funding transacted through online alternative finance grew 57% year-over-year. See (OECD, 2023d).
64 See Moody´s Investors Service (2022) and Cambridge Centre for Alternative Finance/World Bank Group/WEF (2022).
65 Merchant payments transaction data are being used by fintechs to extend unsecured short-term loans; lending through e-commerce platforms and merchant receivables financing are other examples of short-term finance being extended to SMEs. See World Bank (2022a).
66 See World Bank (2022b).
67 See Haddad and Hornuf (2019), Sahay et al. (2020).
68 See International Monetary Fund (IMF) (2020), Sahay et al. (2020), Rau (2019).
69 See for example Brown et al. (2009, 2013).
70 See Cumming & Johan (2019), Farag & Johan (2021), Strausz (2017).
71 See Robano (2018).
72 See for example Gai et al. (2018).
73 See World Bank (2022a), Garcia et al. (2024).
74 See Bartlett et al. (2022), Fuster et al. (2022).
75 See World Bank (2022c).
76 See GPFI/IFC (2011), G20 (2015), G20 (2016), G20/OECD (2022), GPFI/World Bank Group/SMEFF/G20 (2017), GPFI/G20 (2016), GPFI/SMEFF/IFC/World Bank Group/G20 (2020), World Bank Group (2022), GPFI/SMEFF/IFC/G20 (2023), and Carvajal and Didier (2024). See also United Nations Commission on International Trade Law (UNCITRAL) (2022), which covers aspects outside financial sector policies.
77 This action aligns with the recommendations included in the GPFI/SMEFF/IFC/G20 (2023); G20/OECD (2022); World Bank Group (2022); Alliance for Financial Inclusion (AFI) (2022); World Bank Group (2018); G20/IFC (2010); GPFI/IFC (2011); GPFI/SMEFF/IFC/World Bank Group/G20 (2020); GPFI/SMEFF/IFC/G20 (2023); World Bank Group in Carvajal and Didier (2024).
78 See for example Beck et al. (2008) Berger et al. (2006); Brown and Zehndar (2007); Brown et al. (2009), Love and Mylenko (2003), and Martinez Peria and Singh (2014).
79 In emerging markets with more developed capital markets, specialized credit rating services could be particularly useful to facilitate direct access of a subset of MSMEs to the capital markets, via bonds.
80 This sub-action aligns with the G20/OECD (2022); World Bank Group (2018).
81 See International Committee on Credit Reporting (ICCR) (2018).
82 See also World Bank, ICCR (2021), Cross Border Credit Reporting. Aiming for International Practices and Standards. Exploratory Report.
83 This action aligns with the recommendations in GPFI/SMEFF/IFC/G20 (2023); G20/OECD (2022); World Bank Group (2022); World Bank Group (2018); AFI (2022); G20/IFC (2010); GPFI/IFC (2011); World Bank Group in Carvajal and Didier (2024) among others.
84 This sub-action aligns with the GPFI/SMEFF/IFC/IFC/G20 (2023); World Bank Group (2022); AFI (2022); World Bank Group (2018); G20/IFC (2010); GPFI/IFC (2011); and Carvajal and Didier (2024)
85 See for example Calomiris (2017); Campello and Larrain (2016); Love et al. (2016); Love et al. (2014).
86 The range of assets include inventory, accounts receivables, crops, machinery, equipment, intellectual property rights as well as digital

assets. Security interest should be able to be established over part or whole of present and /or future assets and should be able to be defined as fixed or floating.

87 World Bank experience indicates the existence of practical limitations, which may become obstacles, such as cultural reticence toward repossessing collateral and purchasing it at public auctions. See World Bank (2019).

88 This action aligns with the G20/OECD (2022); GPFI/IFC (2011); and Carvajal and Didier (2024).

89 For an analysis of the role of nonbanking financial institutions in MSME finance, see for example Vitas (2013). For an analysis of the impact of fintech in MSME finance see for example Feyen et al. (2022). For an analysis of the role of microfinance institutions in MSME finance see for example Shankar (2016).

90 See Bank for International Settlements (2010). Also see IMF (2002) for guidance on regulating microfinance institutions.

91 This recommendation is in line with the guidance extended by the G20/OECD (2022); and World Bank Group in Carvajal and Didier (2024).

92 See Carvajal and Didier (2024) for a summary of the key characteristics of the regulatory framework for each of these instruments.

93 This action aligns with the recommendations put forth by the GPFI/SMEFF/IFC/G20 (2023); G20/OECD (2022); World Bank Group (2022); G20/oECD (2015); GPFI/IFC (2011); and Carvajal and Didier (2024).

94 Research suggests that equity crowdfunding is more likely to scale up in counties with relatively more developed equity markets. See Carvajal et al. (2020).

95 This recommendation aligns with the guidance put forth by the GPFI/SMEFF/IFC/G20 (2023); and Carvajal and Didier (2024).

96 See Carvajal et al. (2020) and Carvajal and Didier (2024)

97 This action aligns with the GPFI/SMEFF/IFC/G20 (2023); G20/OECD (2022); GPFI/IFC (2011) and Carvajal and Didier (2024).

98 See Rodano et al. (2016); World Bank Group (2018); World Bank Group (2017b).

99 See World Bank Group (2021) and UNICTRAL (2022).

100 This action aligns with the GPFI/SMEFF/IFC/G20 (2023); G20/OECD (2022); World Bank Group (2022); World Bank Group (2018); GPFI/IFC (2011); G20/IFC (2010); Carvajal and Didier (2024).

101 See World Bank (2013). This sub-action aligns with the guidance provided by the World Bank Group (2018) and Carvajal and Didier (2024).

102 This sub-action aligns with the guidance provided by the G20/OECD (2022) and Carvajal and Didier (2024).

103 There is no single definition of open finance. The Bank for International Settlements defines open banking as sharing and leveraging of customer-permissioned data by banks with third-party developers and firms to build applications and services, including, for example, those that provide real-time payments, greater financial transparency options for account holders, marketing and cross-selling opportunities. Open banking uses application programming interfaces (APIs) extensively, requiring open APIs to be mandatory for all or at least some banks within the jurisdiction. While the concept of open banking focuses on the sharing of data among banks, open finance extends to all sectors of the financial industry.

104 This recommendation aligns with the guidance put forth by the World Bank Group. See Carvajal and Didier (2024).

105 See G20/OECD (2022b). However, when expanding consumer protection obligations to cover small firms, governments must strike a balance between maximizing the potential benefits and limiting the unintended consequences (from associated costs and restrictions) to ensure these obligations do not negatively impact access to finance. Currently, approaches vary significantly across jurisdictions, with some jurisdictions extending some consumer protection elements (though not all) beyond private individuals to a subset of firms.

106 Zetzsche et. al. (2019).

107 This action is aligned with the G20/OECD (2022); GPFI/World Bank Group (2023); and Carvajal and Didier (2024).

108 DPI have been defined as "interoperable, open, and inclusive systems supported by technology to provide essential, society-wide, public and private services" [...] In this context, "system" should be interpreted broadly to include protocols, frameworks, and governance arrangements that market players rely on and use to provide products and services to their customers. Conceptually, DPIs could be seen as a core set of foundational systems that enable intensive use and provision of digital services across a range of economic and social interactions and actor". See G20/GPFI/ World Bank Group (2023).

109 This recommendation aligns with the guidance put forth by the GPFI/SMEFF/IFC/World Bank Group/G20 (2020); and Carvajal and Didier (2024).

110 Digital ID: Digital systems and ecosystems that generate, store, and enable individuals and entities to obtain a digital ID and have it securely verified. These identity systems and ecosystems are often augmented by complementary services, such as electronic signatures, digital authentication, and verifiable credentials. See G20/GPFI/World Bank Group (2023).

111 Payment systems: Digital systems that enable individuals, businesses, and governments to transfer money between one another easily and securely. See G20/GPFI/World Bank Group (2023).

112 Data exchange: Digital systems that enable the seamless and secure sharing of data based on consent, as required, between entities—for example, businesses or governments—and across systems. See G20/GPFI/World Bank Group (2023).

113 World Bank (2020); Pellegrina et al. (2017); Bill and Melinda Gates Foundation (2023).

114 See G20/GPFI/World Bank Group (2023)

115 This sub-action aligns with the recommendations put forth by the GPFI/SMEFF/IFC/G20 (2023); GPFI/SMEFF/IFC/World Bank Group//G20 (2020); World Bank Group (2022); and Carvajal and Didier (2024).

116 Targeted financial interventions are defined as public support interventions which aim to directly affect the supply of financing available to MSMEs that also carry fiscal costs. See Carvajal and Didier (2024).

117 For example, front-end tax incentives, i.e., tax deductions on investments in seed- and early-stage ventures, and back-end tax reliefs, which relate to capital gains and losses, including rollover or carry forward, which are often intended to encourage investors to reinvest in early-stage firms.

118 Guidance on applicability reflects an assessment of the potential relevance of the intervention, to scale up financing via a particular channel.
119 There are no comprehensive evaluations of the support programs established by governments in advanced economies nor EMDEs, although there are evaluations of specific components, particularly for advanced economies. The multilateral development banks conduct periodic evaluations of their MSME support programs. There is also selected independent research for specific types of targeted financial interventions (mainly lending, partial credit guarantee schemes and investment programs for venture capital). For a summary of the literature available see Carvajal and Didier (2024).
120 This action is in alignment with the guidance provided by the G20/OECD (2022); AFI (2022); GPFI/IFC (2011); G20/IFC (2010); and Carvajal and Didier (2024).
121 This action is in alignment with the guidance provided by the G20/OECD (2022); AFI (2022); World Bank Group (2018); G20/OECD (2015); GPFI/IFC (2011); G20/IFC (2010); and Carvajal and Didier (2024).
122 See for example Cirera and Qasim (2014).
123 See for example, Burga et al. (2021); Buvinic et al. (2013).
124 This action is in alignment with the guidance provided by the G20/OECD (2022); G20/OECD (2015) and World Bank Group in Carvajal and Didier (2024).
125 A survey conducted by the World Bank indicates that an important number of domestic development institutions still rely on direct lending. See Carvajal and Didier (2024).
126 This action is in alignment with the guidance provided by the World Bank Group. See Carvajal and Didier (2024).
127 This action is in alignment with the guidance provided by the World Bank Group. See Carvajal and Didier (2024).
128 See Bartz-Zuccala et al. (2022).
129 This action is in alignment with the guidance provided by the G20/OECD (2022); G20/OECD (2015) and World Bank Group in Carvajal and Didier (2024).
130 See for example Graña-Alvarez et al. (2024).
131 See Carvajal and Didier (2024).
132 This recommendation is in alignment with the guidance provided by the G20/OECD (2022); AFI (2022); G20/OECD (2015); G20/IFC (2010); and World Bank Group in Carvajal and Didier (2024)
133 This recommendation is in alignment with the guidance provided by the G20/OECD (2022); AFI (2022); World Bank Group (2022); GPFI/SMEFF/IFC/World Bank Group/G20 (2020); G20/OECD (2015); GPFI/IFC (2011); G20/IFC (2010); and World Bank Group in Carvajal and Didier (2024).
134 See for example OECD (2018b).
135 This action is in alignment with the guidance provided by the G20/OECD (2022); G20/OECD (2015); and World Bank Group in Carvajal and Didier (2024).
136 See OECD (2023).
137 This action is in alignment with the guidance provided by the World Bank Group in Carvajal and Didier (2024).
138 See OECD (2021a) and OECD (2022b). The latter argues that SMEs account for at least 50% of greenhouse gas emissions and 30-60% of energy use of the business sector in OECD countries. There are no cross-country estimates of emissions from SMEs in EMDEs. One challenge in accurately assessing the emissions share by SMEs is the limited availability of data. Many SMEs in EMDEs operate informally or have limited resources and capabilities to measure and report their environmental impact, making it challenging to obtain comprehensive information on their footprint.
139 OECD (2024).

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