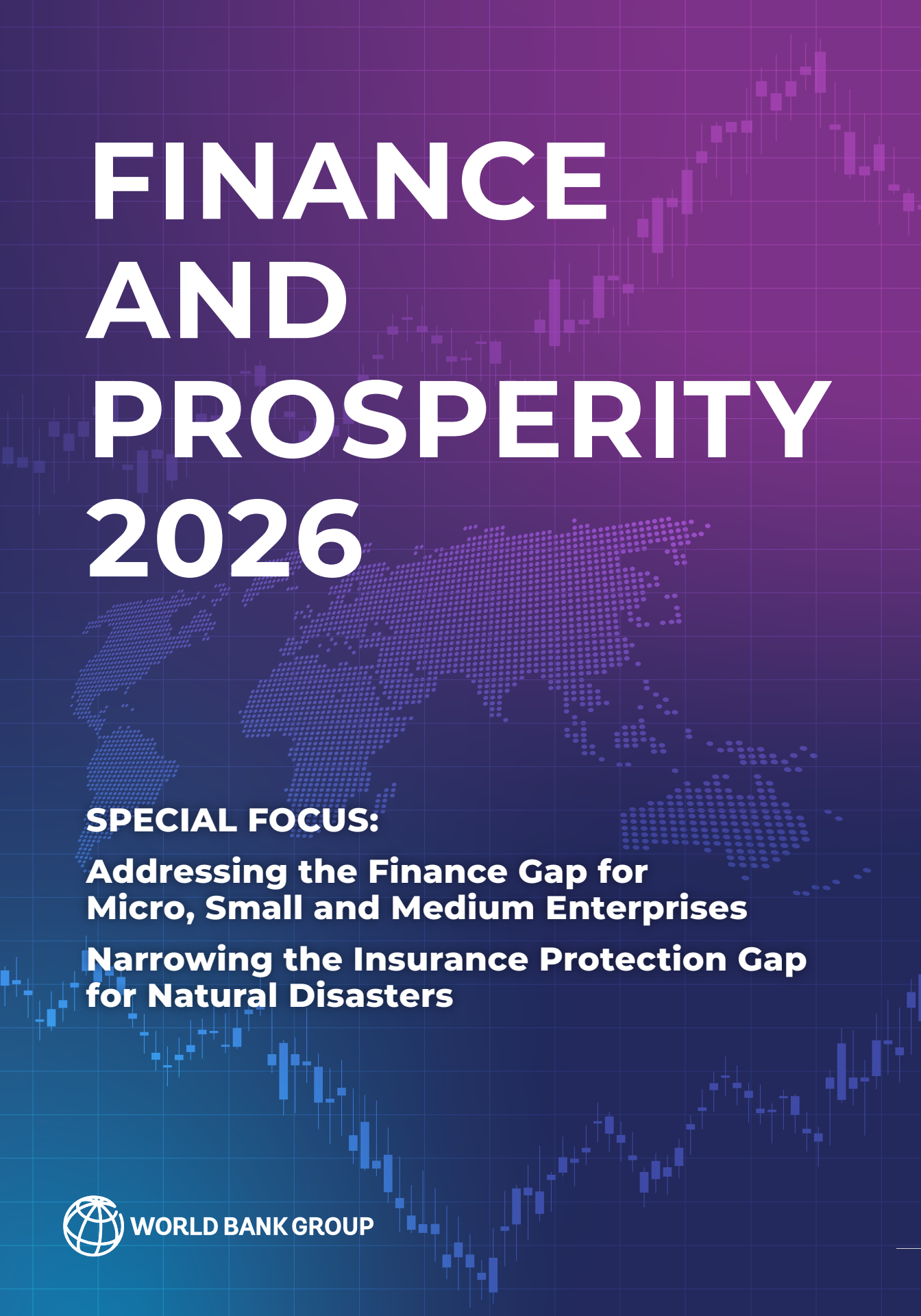
FINANCE AND PROSPERITY 2026



SPECIAL FOCUS:

Addressing the Finance Gap for Micro, Small and Medium Enterprises

Narrowing the Insurance Protection Gap for Natural Disasters

WORLD BANK GROUP

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Foreword

Financial systems in most emerging market and developing economies (EMDEs) have proven largely resilient to various global challenges, including trade and investment uncertainty, geopolitical tensions, high interest rates, and conflict. Despite growing concerns over sovereign and corporate debt burdens around the world, financial systems have remained relatively stable to date.

However, even before the outbreak of the Middle East conflict, this resilience was uneven across countries, and at risk of fraying in some parts of the world.

This edition of the Finance and Prosperity Report highlights the growing importance for developing countries to step up financial sector supervision and shore up safety nets for financial institutions in case of crisis. The report also emphasizes the need to expand access to finance for entrepreneurs and micro, small and medium enterprises (MSMEs), while narrowing the insurance protection gap for natural disasters. The report features many examples of developing countries successfully tailoring financial reforms to address their unique circumstances.

Over the next 10 to 15 years, about 1.2 billion young people in developing countries will reach working age, yet current trends suggest a major shortfall in the availability of jobs. MSMEs will be critical to meeting this jobs challenge. MSMEs are the backbone of the economy in developing countries, where they account for 90 percent of businesses and around 75 percent of workers.

Yet, many MSMEs face significant barriers accessing the credit and equity financing they need to grow, trade, compete, and hire. The credit gap for formal MSMEs in EMDEs is estimated at $4 trillion as of 2023 — equivalent to 11 percent of EMDE GDP. And the shortfall in equity investment is estimated to be at least $1.4 trillion annually for 2022–24.

MSMEs remain largely invisible to financial systems, disconnected from markets and services, burdened by regulatory complexity, and chronically underfinanced. As such, the World Bank Group is implementing a new MSME strategy that leverages data and digital solutions to help MSMEs become more visible, connected, enabled and financed at scale.

EMDEs need to also enhance the resilience of households, farmers, and firms against rising financial losses stemming from natural disasters. Over the last decade, uninsured financial losses have exceeded 80 percent of total losses in parts of Africa, Asia, and Latin America. In some of the world's poorest and most vulnerable countries, this figure has risen to 95 percent. Thus, it is critical for developing countries to increase insurance availability and affordability while closing the gap in natural disaster insurance protection. This report suggests what policy makers can do.



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Vice President, Prosperity, World Bank Group

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Abbreviations

AE	advanced economy
AI	artificial intelligence
AML/CFT	Anti-Money Laundering and Combating the Financing of Terrorism
BBB	British Business Bank
DFI	development finance institution
EAP	East Asia and Pacific
ECA	Europe and Central Asia
EMDE	emerging market and developing economy
G20	Group of Twenty
G20 GPFI	Group of Twenty Global Partnership for Financial Inclusion
GDP	gross domestic product
HIC	high-income country
IAIS	International Association of Insurance Supervisors
IFC	International Finance Corporation
IMF	International Monetary Fund
ISSF	Innovative Startups and SMEs Fund
KYC	Know Your Customer
LAC	Latin America and the Caribbean
LIC	low-income country
MDB	multilateral development bank
MENAAP	Middle East, North Africa, Afghanistan, and Pakistan
MIC	middle-income country
MSME	micro, small and medium enterprise
NPL	nonperforming loan
OECD	Organisation for Economic Co-operation and Development
PE	private equity
PPIP	Public-Private Insurance Partnership
SAR	South Asia Region
SME	small and medium enterprise
SSA	Sub-Saharan Africa
TCIP	Turkish Catastrophe Insurance Pool
UN	United Nations
VC	venture capita
WTO	World Trade Organization

Executive Summary

Financial sectors in most emerging market and developing economies (EMDEs) have shown resilience in the face of uncertainty and a weaker global economic outlook, but some lower-income countries still face high risks in their financial sectors. Before the escalation of tensions in the Middle East in March 2026, financial sector risks were already elevated in several EMDEs, most of which are lower-income countries in the Middle East and North Africa, Afghanistan, and Pakistan (MENAAP), and Sub-Saharan Africa (SSA) regions.

The Middle East conflict is increasing macrofinancial risks in EMDEs at a time when buffers are already thin. Higher energy and commodity prices, tighter financial conditions, and currency depreciation are adding pressure on firms and financial institutions, particularly in countries exposed to adverse terms-of-trade shocks. Capital outflows, disruptions to remittances, and sovereign-bank feedback loops could add to these pressures, particularly if several risks materialize at the same time. Financial authorities should monitor currency- and commodity-linked exposures, ensure that financial institutions have adequate buffers and are stress tested for relevant shocks, and ensure that crisis management frameworks are operational.

EMDE banks generally seem capable of absorbing shocks; however, large bank exposures to fragile sovereigns continue to be a concern in certain countries. EMDE banks hold sovereign debt equivalent to a median of 15 percent of assets, with the most exposed one-tenth of banking systems exceeding 28 percent. Smaller firms are at higher risk of debt service difficulties due to limited access to finance. Although most EMDE banks appear well-capitalized against asset quality shocks and high sovereign debt exposures, stress tests reveal weaknesses, especially in the South Asia region (SAR) and MENAAP. High sovereign exposure can also limit lending to the private sector, including small businesses. Natural disasters pose further risks to the financial sector, often worsened by insufficient insurance coverage.

Several EMDEs still have major gaps in prudential supervision and financial safety nets. Several EMDEs have weak institutional frameworks to ensure the safety and soundness of the banking sector. These gaps often stem from outdated financial sector laws; limited operational and budgetary independence for supervisors; inadequate supervisory resources, tools, and capacity; and insufficient operational readiness of safety nets.

Digital money, payment innovations, and artificial intelligence (AI) applications in financial services and supervision are rapidly expanding across EMDEs. Digital payments grew 29 percent in 2023 alone. Fast payment systems, open finance, stablecoins, and tokenization can make the financial sector more inclusive and efficient. However, digital fraud, illicit activity, and cyber vulnerabilities are also increasing, while defenses and responses remain fragmented. Seventy-seven percent of EMDEs with high financial sector risks also have weak cyber defenses—meaning that the countries with the most fragile financial systems are also the least equipped to deal with cyberattacks. Frontier AI models have obtained sophisticated capabilities to detect and exploit cyber vulnerabilities at speed and scale, amplifying the urgency to close these gaps. Consumers' financial health in many EMDEs remains fragile, but financial authorities are increasingly aware of these challenges.

Deeper domestic capital markets can mobilize private capital for investment, growth, and jobs in EMDEs, but many markets remain shallow, with limited liquidity and narrow investor bases. Developing these markets can help businesses access the capital they need to invest and grow, mobilize domestic savings, and provide long-term financing for infrastructure and other productive investment. It can also expand financing options for MSMEs, including through nonbank financial providers. Unlocking this potential requires strong policy, legal, regulatory, and institutional frameworks; stronger domestic institutional investors; and a broader range of financing instruments to crowd in private capital.

***

Creating more and better-paying jobs is a defining challenge for EMDEs; closing the MSME finance gap is vital to achieving this goal. MSMEs account for 80 to 90 percent of total employment in low-income and lower-middle-income economies, yet their capacity to grow and create more and better-paid jobs is severely constrained by lack of finance. Having a formal loan raises firm employment by an average of 12 percent and boosts sales and profits by about 18 percent.

The scale of unmet MSME financing needs remains large, for both debt and equity. As of 2023, the credit gap for formal MSMEs in EMDEs stood at $4 trillion, which equaled about 11 percent of EMDE GDP and 72 percent of estimated potential demand. The credit gap has persisted stubbornly despite decades of targeted policy support, and is a major impediment to MSME growth and job creation across EMDEs. There is also a substantial equity gap, which this report estimates to be at least $1.4 trillion annually for 2022–24, or 3.3 percent of EMDE GDP for early-stage and growth financing of formal MSMEs. Among firms that could benefit from equity financing, nearly 96 percent lack access to it. Venture capital investment in middle-income countries stood at only 0.02 percent of GDP, compared to 0.18 percent in high-income economies, representing a structural shortfall that disproportionately affects innovative and high-growth firms.

Digital technologies and data-driven approaches can help close these gaps, particularly in short-term debt financing. By leveraging big data, alternative data, automation, and artificial intelligence, financial technology (fintech) enables faster and cheaper credit for firms with limited or no formal financial history, while flexible loan tenors and repayment structures can be customized to MSME cash flow patterns. Digital delivery channels further enable lower transaction costs that have historically kept smaller firms beyond the reach of traditional intermediaries. In select EMDEs, fintech lenders have reached tens of millions of previously underserved consumers and microenterprises in the past decade. Traditional intermediaries, including banks, are also adapting and reshaping their business models and forging new partnerships, for example, through embedded finance. However, the advances in financial technology remain largely concentrated in shorter-term debt financing, with limited inroads into equity.

Policy makers should focus on strengthening the enabling environment to bridge the MSME finance gap and build a data ecosystem, along with regulatory and legal frameworks that are fit for purpose. The data ecosystem should be built on interoperable digital payments infrastructure, open finance, and modernized credit reporting systems, matched by enabling regulatory frameworks covering the full range of financial providers, financial products and instruments, including in capital markets. Expanding access to asset-based and longer-term finance requires modern secured transactions frameworks, collateral registries, and tailored insolvency regimes. Consumer and investor protection frameworks must keep pace with innovation, including emerging risks from algorithmic bias, cybersecurity, and digital fraud.

Targeted public interventions can help in some EMDEs, but only where market failures justify them and not as a substitute for reforms. On the debt side, relevant instruments include funding facilities to help alternative lenders scale, derisking instruments to align risk appetite with MSME financing needs, and, in EMDEs with more developed markets, derisking and investment programs to support the access of medium-size firms to debt financing via the capital markets. On the equity side, catalytic public investment through professionally managed funds can support venture capital and, where markets warrant, financing for growing firms more broadly. To achieve lasting impact, design is as crucial as deployment. Interventions should feature robust diagnostics with a gender lens; capacity building; private capital mobilization as a central objective; and monitoring and evaluation (M&E) to course-correct as needed. Critically, interventions must be designed with exit in mind: as markets develop, public support should wane, allowing private capital to step in.

***

Insurance strengthens resilience, supports long-term investment, and improves livelihoods, but remains significantly underdeveloped in many EMDEs. Although EMDEs account for 40 percent of global economic losses from disasters, they hold only

13.2 percent of global insurance assets and receive just 3.4 percent of claims payments. EMDEs have access to only about 147 non-life insurance policies per 1,000 people, versus 1,402 in high-income countries—a nearly ten-fold gap in coverage. Insurance is critical in helping households, farmers, firms, and countries manage shocks that have an adverse impact on economic growth, development, and financial stability. In addition, with global insurance assets exceeding $42 trillion in 2023, insurers are vital for financing projects like infrastructure.

Extreme weather is increasing financial vulnerabilities in EMDEs. In some EMDEs, the insurance protection gap from natural disasters—losses from natural disasters not covered by insurance—exceeds 80 percent. Both the frequency and severity of natural disasters are rising, intensifying their impact on the financial sector. The poor are the most vulnerable but have the least financial protection. In EMDEs, disaster insurance covers only a fraction of total losses. As disasters become more costly, insurance premiums increase, making coverage less affordable and widening the already substantial protection gap. The average natural disaster insurance protection gap over the past decade is 58 percent, but it exceeds 80 percent in parts of Africa, Asia, and Latin America, and reaches 95 percent in some of the poorest and most vulnerable countries.

Data limitations, scale issues, and affordability are the main barriers to reducing the protection gap. Reinsurance is essential for managing natural disaster risk. Although global reinsurance capital is at a record high of $715 billion, only a small portion goes to these EMDEs: the natural disaster protection gap in EMDEs is estimated to be $40 billion.

Risk reduction is essential for the development of disaster insurance markets and improving access to insurance. While risk cannot be fully eliminated, actions like constructing resilient infrastructure and implementing planning rules and building codes to avoid hazards enhance resilience and reduce exposure to natural disasters. Such measures reduce the likelihood of catastrophic losses while enhancing insurability.

EMDEs need a tailored package of regulatory, market-development, and public policy measures to improve disaster insurance coverage: EMDEs should develop a sound regulatory framework to allow innovative insurance products and their delivery; invest in data infrastructure to make disaster insurance available; develop Public-Private Insurance Partnerships (PPIPs) to address reinsurance gaps and scale; foster innovation and adoption of financial technology to distribute disaster insurance to underserved people; improve products and financial education to build trust; include disaster insurance as part of a package of financial instruments, such as savings and credit, that finance risk cost-effectively; deploy premium subsidies and public guarantees selectively to support market growth while avoiding distortions; and use insurance to backstop government social transfer programs.

Chapter 1. Trends in Financial Sector Risks and Development

Trends in Financial Sector Risk and Resilience

Resilience amid elevated uncertainty

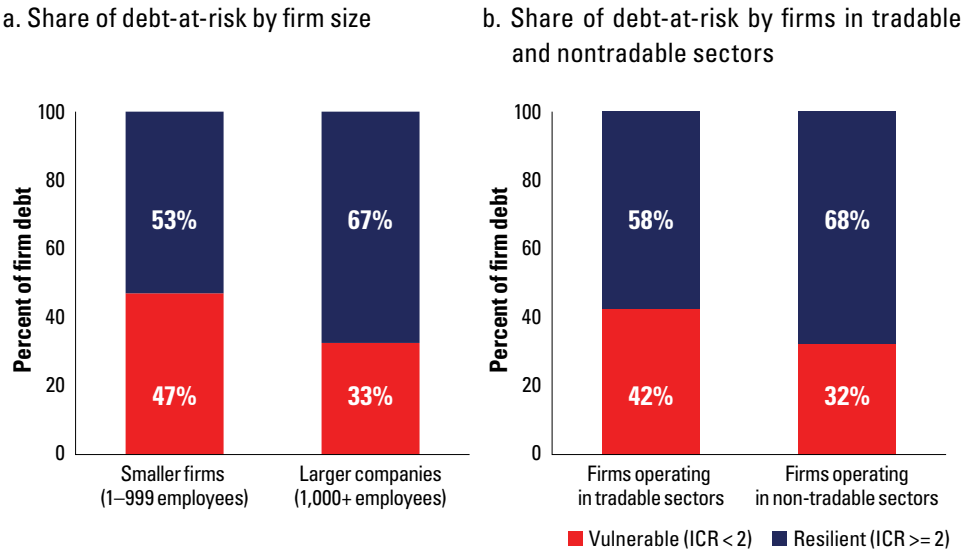
Before the escalation of geopolitical tensions in the Middle East in March 2026, the financial sector risk outlook for emerging markets and developing economies (EMDEs) was broadly stable, with some lower-income countries facing elevated risks. High-risk financial sectors exist in all World Bank regions, primarily in the Middle East, North Africa, Afghanistan and Pakistan region (MENAAP) and Sub-Saharan Africa (SSA) (refer to box 1.1). These countries typically face a combination of macrofiscal imbalances, shallow and undiversified financial markets, and fragile socioeconomic characteristics, including conflict, poverty, commodity dependence, or exposure to climate risks.

The conflict in the Middle East has increased uncertainty around the financial sector risks outlook and already contributed to rising commodity prices, tightening financial conditions, and increased volatility. EMDE financial markets have seen sharp reactions—including in equities, currencies, sovereign spreads, and capital flows—but have shown resilience overall. However, headlines mask disparity across countries and regions. Key financial sector transmission channels to EMDEs comprise capital outflows and currency depreciation, banks' exposures to sectors affected by adverse terms-of-trade shocks and sovereign-bank feedback loops, and disruptions in remittances. The conflict remains fluid, with its ultimate impact on financial markets and sectors depending on duration and scope.

Global drivers of EMDE financial sector risks have shifted, as global policy uncertainties, including geopolitical tensions and trade, and the global economic slowdown emerged as major global risks. Elevated geopolitical tensions, including those stemming from the Middle East conflict, Russian Federation's ongoing invasion of Ukraine, and various other regional conflicts, represent significant global spillover risks for EMDE financial sectors (World Bank 2026a). Trade and trade policy-related uncertainty also remains as a key risk to EMDEs' financial sectors.

Trade and global demand shocks can amplify existing vulnerabilities in firms in EMDEs, especially smaller and export-oriented firms (refer to figure 1.1). Private sector debt is a key domestic risk to financial stability. Debt vulnerabilities appear to have slightly deteriorated, as 38 percent of debt is owed by firms that are vulnerable to debt distress. Vulnerabilities are particularly high among smaller firms, as 47 percent of the debt owed by firms with fewer than 1,000 full-time employees is at risk and many firms that secured lower rates during the COVID-19 pandemic period may have to refinance at higher costs. EMDE firms in tradable sectors—such as consumer discretionary goods and staples, energy, and industrials—face a higher debt-at-risk ratio of 42 percent compared to those in nontradable sectors. Firm defaults may cause significant losses for lenders, particularly in the absence of robust insolvency frameworks and debt resolution systems.[1]

FIGURE 1.1. Debt Vulnerabilities Are Elevated for Small and Tradable-Sector Firms in EMDEs



Source: World Bank staff calculations based on Bloomberg.

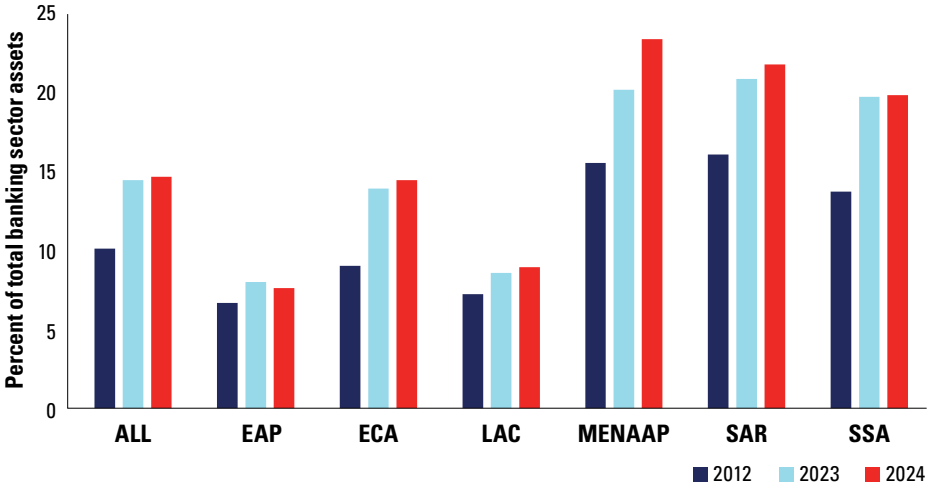
Note: Data as of 2024. The data set comprises 2,872 firms across 34 emerging market and developing economies (EMDEs) , representing a total of 8,662,281 employees. Tradable sectors: consumer discretionary, consumer staples, energy, industrials, material, and technology. Nontradable sectors: health care, real estate, telecommunications, and utilities. ICR = interest coverage ratio.

The sovereign–bank nexus remains a significant domestic financial sector risk in EMDEs and may crowd out the private sector amid high global interest rates, volatile capital flows, and rising debt levels. The sovereign-bank nexus is one of the most prevalent domestic financial sector risks in EMDEs (World Bank 2024). Over the last decade, the median debt-to-GDP ratio in EMDEs has increased from 37 to 55 percent. In 2024, banks in EMDEs held a median of 15 percent of their assets in sovereign debt, with 10 percent of EMDE financial sectors exceeding 28 percent of total assets. During this period, banks

in EMDEs of MENAAP, the South Asia region (SAR), SSA, and Europe and Central Asia (ECA) have significantly increased their holdings of sovereign debt (refer to figure 1.2 and box 1.1). This nexus is concerning in countries at risk of government debt distress because it crowds out financing to the private sector and potentially leads to costly joint banking and government debt crises. The growing nexus coincides with declining foreign investor participation in local currency bond markets, with nonresident holdings dropping from 22 percent to 16 percent on average over the past five years.

FIGURE 1.2. Domestic Banks in MENAAP and SAR Have Continued to Increase Their Government Debt Purchases, Reaching the Highest Levels Since 2012

Banks' holdings of government debt to total banking sector assets (percent)



Source: World Bank staff calculations based on IMF 2025a.

Note: Median country per region. Balanced sample consisting of 97 countries. EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MENAAP = Middle East, North Africa, Afghanistan, and Pakistan; SAR = South Asia region; SSA = Sub-Saharan Africa.

Box 1.1. Regional Perspectives on Financial Sector Risks

In East Asia and Pacific (EAP), financial sector risks are driven by prospects of weaker growth in major economies, including China, elevated trade uncertainties, and debt-related vulnerabilities. Although large EAP countries maintain stable financial sectors with good asset quality and sufficient capital buffers, specific vulnerabilities persist amid external uncertainties. In China, bank credit quality is increasingly dependent on the growing role of fiscal policy to

support weaker sectors, such as property. Weak consumer sentiment constrains domestic consumption and reduces its contribution to growth, while trade tensions create headwinds for exporters, necessitating more diversified export markets. Vigilance is required for high household debt in Malaysia and Thailand, asset quality issues in Cambodia and Lao People's Democratic Republic, and tight sovereign-bank links in Papua New Guinea and the Philippines.

In Europe and Central Asia (ECA), the continued fast growth of consumer lending and high dollarization expose financial systems to credit and foreign currency risks in Central Asia, Eastern European countries, the South Caucasus, Ukraine, and the Western Balkans. Countries whose banking sectors have close links with Russian banks or customers continue to face "derisking" challenges concerning correspondent banking relationships and secondary sanctions. Rising domestic political uncertainty in many ECA countries adds to elevated geopolitical risks, while the sovereign-bank nexus has intensified in several countries. In Ukraine, a high level of nonperforming loans (NPLs) concentrated in state-owned banks amplifies the systemic risks stemming from a strong sovereign-bank nexus. The Turkish banking system confronts elevated foreign currency risk and the rising, albeit still limited, credit risk induced by currency depreciation, high inflation, low foreign currency reserves, and elevated political uncertainty.

In Latin America and the Caribbean (LAC), financial sectors remain resilient despite facing various challenges. Coming out of the pandemic, regional central banks quickly raised policy rates ahead of many global counterparts in response to inflation pressures. However, firms in the region continue to face difficult global financial market conditions, compounded by domestic risk factors, such as limited access to foreign currency, significant policy uncertainty, and social tensions. Households in the region continue to post signs of over-indebtedness and rising delinquencies.

In the **Middle East, North Africa, Afghanistan, and Pakistan** (MENAAP), macrofinancial risks have generated significant vulnerabilities in the financial sectors of some non–oil-exporting countries. The increased volatility and uncertainty of the regional and global context have so far not triggered new stress in most MENAAP financial sectors. Challenges in the Lebanese banking system remain unresolved. Several war-torn jurisdictions also have yet to restructure and clean up their financial sectors. The Arab Republic of Egypt, Tunisia, and Pakistan continue to rely heavily on domestic banks to support pressing financing needs. The risks linked to the sovereign-bank nexus require attention.

In the **South Asia region** (SAR), India's financial sector appears resilient, but other South Asian countries face challenges due to unresolved financial weaknesses and high macroeconomic risks. Bangladesh's banks struggle with high NPLs and capital shortages, especially in state-

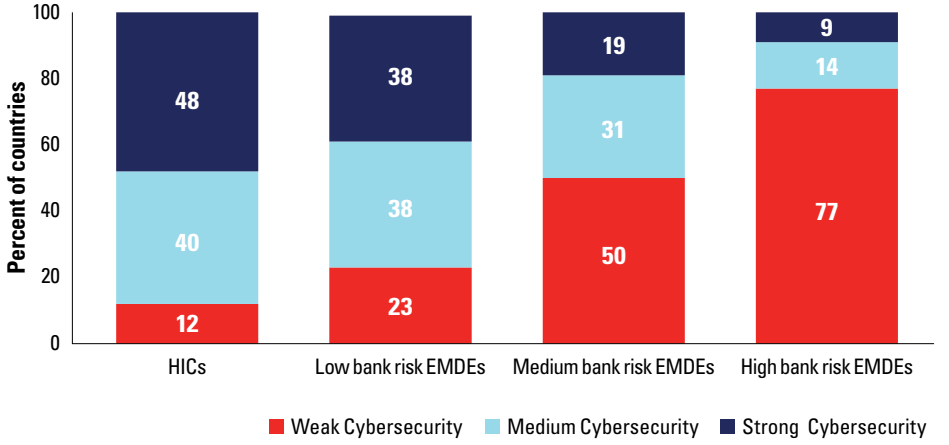
owned and Islamic banks, due to weak governance. In India, emerging risks in unsecured retail and microfinance loans indicate vulnerabilities. Sri Lanka's banks have avoided credit losses on domestic government securities but face credit risks from financially strained households and companies. In Nepal, rising NPLs from an ailing real estate market affect bank profitability and capital, while tighter lending standards slow credit growth. Sovereign-bank nexus risks are elevated in the Maldives.

In **Sub-Saharan Africa** (SSA), debt challenges, the sovereign-bank nexus, and elevated NPLs continue to be major risk sources exacerbated by trade tensions and volatile commodity prices. Although debt has stabilized and started to decline across the SSA region, debt-to-gross domestic product (GDP) ratios remained elevated in several countries (IMF 2025b). Banks are exposed to sovereign debt, primarily through holdings of government securities such as in Angola, Burkina Faso, Ghana, Guinea, and South Africa, exposing them to losses and impaired solvency if sovereigns default or restructure their debt, as was recently the case in Ghana.

Cybersecurity risks are relatively high in EMDEs, and countries with riskier financial sectors tend to have weaker cybersecurity defenses. Frontier AI models have obtained sophisticated capabilities to detect and exploit cyber vulnerabilities at speed and scale, amplifying the urgency to close these gaps. In high-income countries, 12 percent have relatively weak cybersecurity capacity. In EMDEs facing the highest financial sector risks, this share increases to 77 percent (refer to figure 1.3). Gaps in detection, protection, response, and recovery leave financial institutions, financial infrastructures, and third-party service providers exposed to operational disruptions and financial stress, which can spread quickly and erode systemic financial stability and public trust in digital financial services and digital forms of money (refer, for example, to FSB 2024). Recently, AI frontier models have obtained sophisticated capabilities to detect and exploit cyber vulnerabilities rapidly, at large scale, and with growing autonomy, significantly compressing the time from vulnerability discovery to exploitation. These capabilities are likely to grow more powerful and could soon become widely available through open-source models. This raises the urgency of closing cybersecurity gaps, both by amplifying existing cyber threats and by shortening the response window, particularly because attackers may adopt these tools faster than defenders can adapt.

FIGURE 1.3. Countries with Higher Financial Sector Risks Tend to Have Weaker Cyber Defenses

Share of countries (percent) with weak, medium, or strong ITU cybersecurity index by financial sector risk outlook



Source: World Bank staff calculations based on International Telecommunication Union (ITU) and Economist Intelligence Unit (EIU) data.

Note: Sample comprises 126 countries, including 52 high-income economies, 26 EMDEs with low banking sector risk, 26 EMDEs with medium banking sector risk, and 22 EMDEs with high banking sector risk. EMDE risk groups exclude high-income countries and are based on terciles of EIU banking risk scores. Weak, medium, and strong cybersecurity categories are based on terciles of ITU cybersecurity scores across all countries in the sample. ITU data are as of end-2024; EIU banking risk scores are as of April 2026. EMDEs = emerging markets and developing economies.

Buffers and resilience in the banking sector

Most banks in EMDEs remain well-capitalized and profitable and are typically located in EAP, ECA, and LAC. These banks have significant buffers to withstand potential increases in credit and market risk stemming from the uncertain economic outlook. The median capital adequacy ratio in a global sample of 1,415 EMDE banks[2] remained at 18.2 percent of risk-weighted assets in 2024, similar to 2023. About 40 percent of banks have capital exceeding 20 percent of risk-weighted assets, while only 6.5 percent had ratios below 12 percent in 2024. Strong profitability supports capitalization, with a median return on equity of 14.6 percent in 2024, significantly higher than in the aftermath of the COVID-19 pandemic. A reverse stress test shows that 78 percent of banks can withstand a hypothetical 10 percentage point rise in the nonperforming loan (NPL) ratio (refer to figure 1.4, panel a), and 89 percent can endure a 10 percent reduction in government bond holdings value (refer to figure 1.4, panel b).

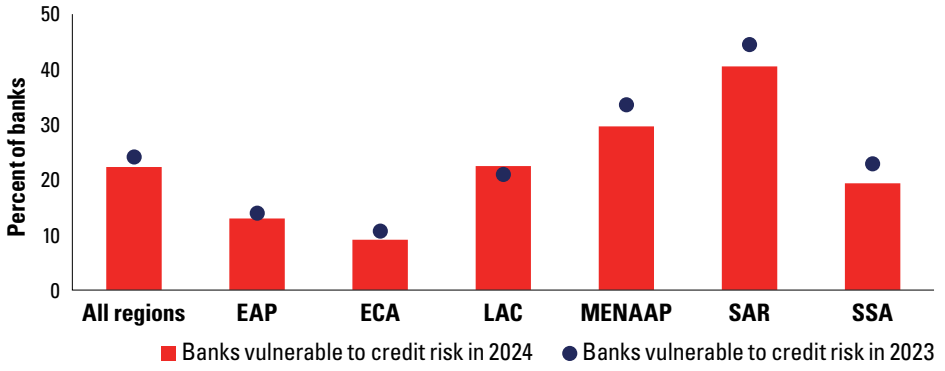
However, there is a significant subset of weaker banks in SAR, MENAAP, and SSA. The reverse stress test shows reduced shock-absorbing capacity for banks in these three regions. In SAR and the MENAAP region, average NPL ratios currently stand at 9.1

percent and 6.9 percent of total loans, respectively. In these regions, a severely adverse scenario of a 10-percentage point increase in NPLs would leave 40 percent and 30 percent of sample banks undercapitalized, respectively. These vulnerable banks account for 41 percent and 28 percent of respective regional banking assets. Additionally, 27 percent of banks in MENAAP and 21 percent in SAR have insufficient buffers to withstand a 10 percent drop in the value of their government bond holdings.

FIGURE 1.4. Banking Sector Resilience and Buffers Differ across Regions

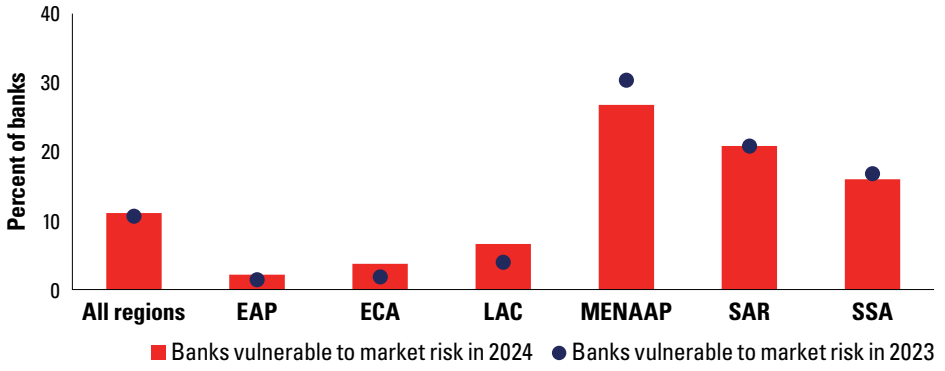
a. Share of banks for which the capital adequacy ratio falls below the regulatory minimum following a hypothetical 10 percentage point increase in the NPL ratio

Banks vulnerable to credit risk (percent)



b. Share of banks for which the capital adequacy ratio falls below the regulatory minimum following a hypothetical 10 percent decrease in the value of government security holdings

Banks vulnerable to market risk (percent).



Source: World Bank staff calculations based on Fitch Connect.

Note: The reverse credit risk stress test assumes a provisioning rate of 55 percent and that provisioning requirements reduce both the value of regulatory capital as well as risk-weighted assets (RWA). For more details on the methodology, refer to Feyen et al. (2021). Data are as of 2024. Panel a includes data for 1,415 banks: 309 in EAP, 253 in ECA, 262 in LAC, 152 in MENAAP, 299 in SAR, and 140 in SSA. Panel b includes data for 1,127 banks: 281 in EAP, 215 in ECA, 149 in LAC, 112 in MENAAP, 245 in SAR, and 125 in SSA. ECA = Europe and Central Asia: EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MENAAP = Middle East, North Africa, Afghanistan, and Pakistan; SAR = South Asia region; SSA = Sub-Saharan Africa.

Policy measures to strengthen financial sector resilience

Strengthening financial sector resilience through effective prudential supervision and operational safety nets is essential, especially for lower-income countries facing high risks. Banking sector authorities across EMDEs have made progress in aligning prudential supervision and financial safety nets with international standards. Many EMDEs have institutional frameworks for banking sector safety. However, gaps remain, mainly in lower-income countries, and some also face elevated financial sector risks. The ongoing conflict in the Middle East requires continued vigilance. EMDE financial authorities should tighten oversight of currency- and commodity-linked exposures, strengthen financial institutions' buffers and stress-test against relevant shocks, and ensure crisis management frameworks are operational.

Trends in Financial Sector Development

Digital money and payment innovations

Technological innovations in payment systems are improving the speed, cost, and accessibility of financial services and payments, but growth in digital payments remains uneven, with some regions lagging. The rise of mobile money, digital and biometric onboarding, and fast payment systems has driven strong growth in digital payments. The average number of annual digital payments in EMDEs increased by 29 percent year-over-year in 2023 (from 293 to 377 per 1,000 adults), outpacing the growth in advanced economies (Di Iorio et al. 2025). The uptake of mobile money also contributes to lower remittance costs. In Q1 2025, mobile money was the cheapest method for funding a remittance transaction, at 4 percent,[3] when the average cost when using cash was 7 percent, and 5 percent when using a debit or credit card. Usage of digital payments, though growing, remains limited in some jurisdictions, with less than 50 percent of adults making or receiving a digital payment and many merchants not accepting digital payments in many regions (South Asia, Middle East and North Africa, Sub-Saharan Africa).

Fast payment systems[4] are now available in more than 100 countries and may represent more than one-quarter of global electronic payments by 2026, up from less than one-fifth in 2021 (ACI Worldwide 2022). About 20 more fast payment systems are under development. Some of these retail payments systems, however, lack important features to promote their inclusiveness, efficiency, and usage, including interoperability, third-party initiation, and value added services, such as leveraging digital identification (ID) systems.

Improvement in domestic payment systems can open new avenues to address long-standing inefficiencies in cross-border payments, but progress remains slow. Efficient domestic payment systems are a key enabler of more efficient cross-border payments, such as remittances. Remittances are on average 2 percentage points cheaper in corridors where the receiving jurisdictions have a domestic fast payment system, but the cost of remittances remains well above the G20 (Group of Twenty) target in some corridors between EMDEs. Speed and transparency continue to be important constraints.

Open finance frameworks that leverage fast payment systems data can help close the gap in access to digital financial services for households and firms. However, many countries still need to undertake the requisite reforms. Open finance enables digital transaction data to be used for, for example, alternative credit underwriting. In Brazil, open finance allows for the sharing of data (including from Pix, Brazil's fast payments system) between regulated entities, subject to customer consent. But a safe and efficient open finance framework requires risk-based and proportionate regulation for customer-permissioned data access; effective, transparent, and inclusive governance arrangements; broad participation of financial services providers; efficient consumer protection, oversight and supervision; and standardized application programming interfaces (APIs) (CGAP et al. 2025).

Stable coins, tokenization, and innovations based on central bank digital currencies (CBDCs) may also present new opportunities for cross-border payments. However, legal, regulatory, and supervisory frameworks, along with infrastructure in EMDEs, still lag. Well-designed and well-regulated stable coins are a promising emerging avenue that could enable faster, cheaper, and more transparent (cross-border) transactions by reducing reliance on correspondent banking and its delays and fees. However, notwithstanding data gaps, the adoption of stable coins for cross-border payments appears limited (Higginson et al. 2026). They also carry several risks [refer, for example to FSB (2023, 2025); FATF (2025, 2026)]. Digital dollarization, loss of monetary sovereignty, circumvention of capital flows rules, domestic bank disintermediation, illicit use, and consumer protection risks are most acute for EMDEs, and these risks are compounded by a lack of reliable data. Further, supervisory coordination between the issuer and user jurisdictions is challenging for EMDEs because cross-border supervisory college and resolution frameworks are absent. Moreover, stable coin regulation is progressing unevenly across countries, and views on regulatory stances have not yet converged, particularly in EMDEs, giving rise to global regulatory arbitrage. Wholesale CBDC arrangements combine benefits of a central bank liability with 24/7/365 availability to facilitate foreign exchange trading and settlement with a shared infrastructure and common rules. Tokenization of central bank money and key financial instruments based on a unified ledger promises improved (cross-border) transaction efficiency and resilience (refer, for example, to Iravantchi et al. 2025). However, these developments are absent or nascent in most EMDEs.

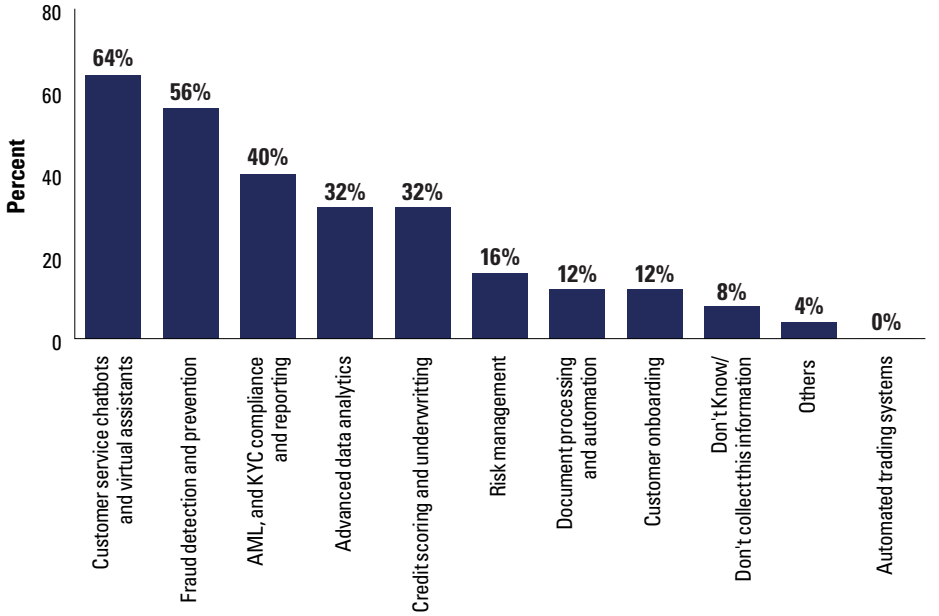
The fast-paced evolution of digital payments also poses new risks to financial stability, integrity, and consumer protection that must be managed carefully. Digital financial innovations and increasingly powerful artificial intelligence (AI) systems can exacerbate operational vulnerabilities and cybersecurity risks. For example, only one-third of central banks in low- and middle-income countries have protocols for major cyber incidents and many are not yet applying any international cybersecurity standards. The information technology (IT) skills gap is an important constraint exposing vulnerabilities in financial institutions, particularly in SSA, where there is an estimated shortage of 100,000 cybersecurity professionals. Moreover, the increased transaction speed and volume of digital transactions can pose challenges to Anti-Money Laundering and Countering the Financing of Terrorism (AML/CFT) systems. To mitigate these risks, financial authorities should ensure that financial institutions and infrastructures adopt robust strategies and processes to manage operational risks and maintain critical operations during disruptions. Robust frameworks are also essential for financial system integrity, but trade-offs between AML/CFT requirements and access to finance should be considered. While many EMDEs are taking action, important gaps remain.

AI in financial services

Increasingly powerful AI is poised to reshape business models, market structures, and consumer behavior in the financial sector. In keeping with their history as early adopters of new technology, financial institutions are using generative AI to boost operational efficiency, enhance regulatory compliance, create personalized financial products, and deliver advanced data analytics. While AI adoption by financial institutions and authorities in EMDEs is in earlier stages compared to advanced economies (Boeddu et al. 2025; Dohotaru et al. 2025), several use cases are emerging. A World Bank survey of 27 financial sector authorities in EMDEs found the most common applications are customer service chatbots (64 percent), fraud detection (56 percent), and compliance with anti-money laundering (AML) and know-your-customer (KYC) regulations (40 percent) (refer to figure 1.5). Generative AI (GenAI) allows chatbots to manage more complex customer interactions, enhancing retention and reducing costs. Furthermore, improving regulatory efficiency is a key driver for AI adoption (FSB 2024). In African countries, credit scoring is the second most common AI use case, as institutions use AI and alternative data to serve populations lacking formal credit histories.

FIGURE 1.5. Financial Institutions That Have Adopted AI in EMDEs Most Commonly Use AI for Fraud Detection, Customer Service, and AML/CFT and KYC Compliance

Share of responses for the question "What are the top three use cases of AI by financial institutions in your jurisdiction?" (percent)



Source: World Bank staff based on World Bank survey on AI in supervision in 27 emerging and developing market economies, 2025.

Note: Only respondents who reported early stage, moderate, or advanced levels of adoption by at least one type of financial institution were asked this question. This question was skipped for those who reported very limited adoption or did not know the level of adoption in their jurisdictions. Therefore, the total number of respondents was 25. AI = artificial intelligence; AMI =; AML/CFT = Anti-Money Laundering and Combating the Financing of Terrorism; KYC = Know Your Customer.

Despite potential efficiency gains, the rising adoption of AI also introduces new challenges and risks. Key AI vulnerabilities are related to the reliance on third-party service providers (such as cloud services and foundational AI models), data quality, model transparency and accuracy, market correlations, and cybersecurity (FSB 2024). Generative AI also increases the potential for financial fraud and disinformation in financial markets (IOSCO 2025). As a result, as financial institutions integrate AI into a wider range of activities, the landscape for supervisors is becoming more complex. Moreover, as described in a previous section, frontier AI models have obtained sophisticated capabilities to detect and exploit cyber vulnerabilities, which amplifies cybersecurity risks significantly.

To maintain effective and robust oversight, authorities are modernizing their information technology and data infrastructures and adopting supervisory technology (SupTech) tools. However, preparing for AI-related risks goes beyond technology. Laying the groundwork for risk-based supervision, reviewing existing supervisory practices, and

employing market monitoring tools are vital for evaluating AI outcomes in the financial sector. These measures help detect consumer harm and support swift supervisory and regulatory responses. Most EMDE supervisors are early in their AI adoption and typically lag market participants. But their experimentation with AI is rapidly expanding, driven by the promise of increased efficiency and the need to overcome resource limitations (Boeddu et al. 2025). Their success hinges on enhanced coordination and knowledge sharing among relevant domestic authorities, peers across borders, and market participants.

Digital fraud in financial services

Digital fraud has emerged as a fast-growing risk of the digitalization of financial services. Rapid advances in fast payments, open finance, and data-driven personalization have expanded access to financial services while creating risks. Fraud today is increasingly cyber-enabled—adaptive, scalable, and real-time (Visa Acceptance Solutions et al. 2024). Attacks routinely span borders, leveraging jurisdictional gaps and institutional fragmentation across finance, telecommunications, digital platforms, and retail ecosystems. What began as a concern in parts of Europe and Southeast Asia is now global and is eroding public trust and imposing growing economic costs and financial stability risks. Some 85 percent of responding regulatory agencies in 60 jurisdictions spanning both advanced and developing economies report that financial scams and frauds are a top risk facing consumers (OECD 2026). Findex 2025 data reveal the high prevalence of scam attempts across many low- and middle-income countries, with exposure rates reaching extreme levels in markets like Tanzania (71 percent) and Mozambique (65 percent).

Regulators and supervisors have taken important steps, but ecosystem-wide approaches to mitigating digital fraud remain fragmented and less mature. By coupling innovation-friendly policies with robust, cross-sector defenses and clear accountability, countries can sustain trust, inclusion, and competition in digital finance while materially reducing the risk and impact of digital fraud. Gaps remain, but they do not reflect a lack of regulatory action. Standard-setting bodies have strengthened cyber risk standards and guidance, and a growing number of countries have advanced data-sharing frameworks and are tightening AML/CFT measures (Clark et al. 2025). Consumer protection authorities and payment operators are introducing stronger safeguards. However, these efforts have largely evolved in parallel, anchored in different mandates, standards, and supervisory communities. As a result, digital fraud frameworks remain siloed and only partially aligned with the speed, interoperability, and increasingly cross-sector nature of digital financial services.

Addressing digital fraud requires consistency and coordination across the digital financial ecosystem. Mitigating digital fraud requires a lifecycle-based approach:

- *Prevention* should prioritize safer-by-design products, stronger authentication, and proportionate controls without undue impact on user experience.

- *Detection* should combine institution-level detection efforts and shared, real-time threat intelligence and exposure mapping, enabling authorities and providers to identify emerging patterns and coordinate automated action across banks, payment service providers (PSPs), telecom operators, and digital platforms. Along those lines, several countries are implementing national anti-scam centers, because they provide a critical opportunity to coordinate responses across relevant entities and facilitate data sharing.

- *Response* mechanisms should emphasize speed and coordination that support rapid containment, fund freezing, and tracing across providers and jurisdictions.

- *Recovery* frameworks should establish clear rules for loss allocation, consumer redress, and accountability, aligning incentives so that all ecosystem participants invest in prevention and resilience rather than externalizing fraud risks.

In addition, anti-fraud, cyber risk, and AML/CFT efforts need to be aligned through coherent policy guidance and operational coordination as a cross-cutting pillar across the full mitigation life cycle, so that criminals face fewer institutional and operational gaps to exploit.

Finally, cooperation should extend beyond the financial sector and across borders. Formal mechanisms should connect financial authorities with telecommunications regulators, platform providers, cybersecurity agencies, law enforcement, and identity authorities, supported by exchanges of intelligence that nonetheless preserve privacy, as well as joint investigative capabilities. Regional and international coordination can close jurisdictional gaps and prevent regulatory arbitrage.

Financial health

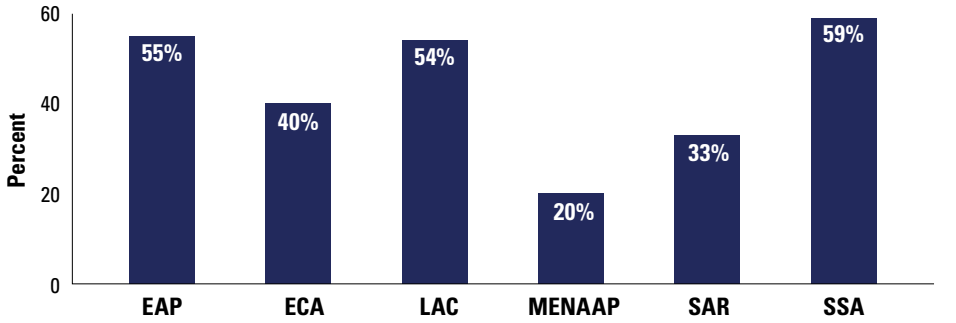
As financial services provision evolves, emergent consumer risks and market vulnerabilities have driven a push to monitor consumer outcomes, including through the concept of financial health.[5] Financial health has four dimensions: manage finances, absorb shocks, plan for the future, and pursue opportunities.[6] Financial sector policy makers can deploy financial health interventions to detect consumer risks, misconduct, and anticompetitive behavior at an early stage and to strengthen consumer protection, inform regulation and policy action, and enhance oversight (Iravantchi et al. 2025). Broader national efforts promoting economic inclusion and growth—beyond financial inclusion—are critical to advancing financial health.

Some consumers in EMDEs face financial stress, with limited resilience and rising debt risks. Global Findex 2025 found only about one-third of adults surveyed in low- and middle-income countries (LMICs) could cover two months of household expenses if they lost their main source of income (Klapper et al. 2025). Primary financial worries were monthly bills, followed by medical and school costs. In emergencies, most individuals—particularly women and lower-income adults—relied on family and friends for financial support. Most were unable to meet financial goals, with just 18 percent saving formally for retirement. One in four reported experiencing a natural disaster in the past three years, highlighting widespread exposure to climate-related shocks that undermine income and assets—and growing need to enhance resilience to extreme weather and close insurance gaps (refer to chapter 3). Concurrently, overindebtedness has become a significant source of harm to consumers globally amid the growth of digital credit (World Bank 2026b).

These trends prompted policy makers to initiate efforts to monitor financial health, first in advanced economies with established financial access and then as financial inclusion advanced in EMDEs. The forthcoming World Bank Financial Inclusion and Consumer Protection Survey (FICP) finds 50 percent of responding jurisdictions measure consumer financial health in some way. This includes regional initiatives such as the institutionalized monitoring undertaken by the Philippines central bank, Bangko Sentral ng Pilipinas, and its collaboration with member-countries of the Association of Southeast Asian Nations (ASEAN). However, regional disparities are pronounced: while most countries in SSA, LAC, and EAP track consumer financial health, only about 20 percent of countries in MENAAP do (refer to figure 1.6).

FIGURE 1.6. Persistent Regional Disparities Remain in the Measurement of Consumer Financial Health

Countries measuring financial health/well-being of consumers (percent of countries per region)



Source: World Bank staff calculations based on World Bank, forthcoming.

Note: Sample consists of 93 countries, with 11 in EAP, 10 in ECA, 13 in LAC, 5 in MENAAP, 3 in SAR, and 17 in SSA. The three multi-economy respondents (Central Bank of West African States, Bank of Central African States, and Eastern Caribbean Central Bank) are not included in the regional classifications. EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MENAAP = Middle East, North Africa, Afghanistan, and Pakistan; SAR = South Asia region; SSA = Sub-Saharan Africa.

Data on financial health are being used to target action across government and the private sector (Iravantchi et al. 2025). They have shaped national financial education programs (Brazil, Kenya), credit regulations (Australia, Brazil, Canada, Kenya), financial inclusion goals (Jordan), and inclusive finance initiatives (Canada, Kenya). These insights also drive product design, marketing, and policy evaluation—embedding consumer well-being into financial systems (Iravantchi et al. 2025).

Global efforts have begun to prioritize financial health.[7] The International Monetary Fund (IMF) is developing a framework to understand the macroeconomic drivers of financial health, and CGAP is preparing guidance for financial sector authorities to measure financial health. Standard-setting bodies have explored how public policy can promote financial health through consumer protection, financial literacy, and sound regulation (Bank for International Settlements, BIS), as well as how linking insurance with savings, credit, and payments products can strengthen financial resilience (International Association of Insurance Supervisors, IAIS) (Cantú et al. 2024; IAIS-World Bank 2025).

Additional data and analysis can enable benchmarking and coordinated action to increase financial health. By embedding financial health metrics in demand- and supply-side data, policy makers can regularly assess gaps; design policy and regulatory responses that promote fair, efficient, and competitive markets; and support the informed, safe use of financial products and services. Private sector initiatives, such as enhancing financial institutions' risk assessments and refining product strategies through tailored product design and adaptive marketing, can complement public measures.

Mobilizing private capital

Strong local capital markets enable businesses to invest, expand, and create jobs, while mobilizing domestic savings and attracting long-term private capital. Institutional investors can provide longer-term and local-currency financing for sectors like infrastructure, housing, and micro, small and medium enterprises (MSMEs) (Pesme et al. 2023), an increasingly important source of financing as fiscal space, official development assistance, and external investment decline. For example, a significant credit gap exists for formal MSMEs, most of which lack the scale and capacity to access capital markets directly (refer to chapter 2). Addressing this gap requires an enabling environment for nonbank providers serving MSMEs, such as fintechs, digital banks, and microfinance institutions, to access capital market financing. More broadly, financing options need to expand beyond traditional bank lending, including through public and private equity and debt and alternative finance. Equity finance, in particular, is vital for high-impact "gazelle" firms that drive job creation and innovation. To unlock these long-term financing sources, many EMDEs need to deepen public and private bond and equity markets, strengthen

nonbank and technology-driven finance, and mobilize domestic savings and long-term private capital for investment, growth, and jobs.

Yet many EMDEs still have shallow capital markets with limited liquidity and narrow investor bases that constrain private investment. Over the past decade, sovereign bond markets in EMDEs have expanded.[8] Similarly, equity markets have grown across EMDEs, with a 56 percent increase in listed firms and a 47 percent increase in market capitalization between 2017 and 2024.[9] However, global financial volatility and monetary tightening have complicated bond issuance and cash management efforts. EMDEs initially issued shorter bonds to avoid high coupon rates in the high-interest rate environment, but later extended maturities to reduce refinancing risks. Corporate bond markets have been growing but remain small, with a deeper and more diversified long-term investor base critical to their development. Corporate debt issuance accelerated in 2024 and 2025,[10] but elevated US dollar-denominated bond yields, especially in lower-income countries, have led to a shift toward local currency borrowing in countries with deeper markets (IFC 2024). The institutional investor base and mutual fund industry are growing, particularly in lower-middle-income countries, but remain limited in many EMDEs, constraining the availability of long-term, local-currency financing. In many countries, the pension sector is not providing the needed long-term, local-currency financing due to factors such as low contribution rates, lack of preservation of pension benefits, and a limited offering of long-term assets with an appropriate risk-return profile.

Deeper capital markets require strong macroeconomic and institutional foundations, together with enabling policy, legal, regulatory, and institutional frameworks. This includes a stable macrofinancial environment, a strong institutional investor base, reliable disclosure and transparency, and effective regulatory oversight. In parallel with strengthening legal and supervisory frameworks, deepening government bond markets, and expanding the institutional investor base, countries need a broader range of investment instruments and vehicles with risk-return and liquidity profiles that can attract long-term investors. This may include securitization and private debt and equity structures with blended finance capital across various risk tiers. Additionally, specialized derisking structures or vehicles may help reduce risk and crowd in private capital for real sector assets such as small and medium enterprises (SMEs) and infrastructure. In response, governments, multilateral development banks (MDBs) and development finance institutions (DFIs) have increasingly focused on strengthening the enabling policy and regulatory environment (MDB Task Force 2025; World Bank 2025a) and deploying financial instruments to reduce risk and crowd in private capital. State-owned and national development banks can also play an important role in supporting private capital mobilization for addressing climate, ecological, and developmental challenges (Dalhuisen et al. 2025). However, it is crucial to evaluate the efficiency and effectiveness of the state's expanded role to avoid distortions and ensure that it focuses on addressing market failures.

Chapter 2. Addressing the Finance Gap for Micro, Small and Medium Enterprises

Introduction

Creating more and better-paid jobs is the defining development challenge for emerging markets and developing economies (EMDEs) over the coming decade. In developing economies, 1.2 billion young people will reach working age over the next 10 to 15 years, but only about 420 million jobs are projected to be created. Many who do work are in low-productivity, low-wage jobs (World Bank 2025a).

This chapter makes the case for the centrality of micro, small and medium enterprises (MSMEs) to this effort and for access to finance as a key catalyst for job creation and sets out a policy agenda for governments to build a more inclusive finance ecosystem. It reviews the role of MSMEs in employment and the evidence on how access to debt and equity finance helps them create more and better-paid jobs; discusses the evolution of the MSME finance ecosystem and the innovations driven by fintech that are transforming it; and translates these insights into concrete recommendations designed to remain relevant as innovation continues to reshape the landscape.

Access to Finance as a Catalyst for Jobs

Access to finance is a key enabler of the organizational changes that help MSMEs grow, become more productive, and create more and better-paid jobs and improve resilience. A growing body of evidence shows that when financing constraints are lifted, MSMEs expand and hire more workers, improve their performance—which can lead to increases in wages,[11] and are more able to withstand shocks. This evidence is particularly relevant as governments across EMDEs design financial support programs aimed at employment (refer to online annex for an extended summary of the evidence).

MSMEs' current contribution to employment and challenges for job creation

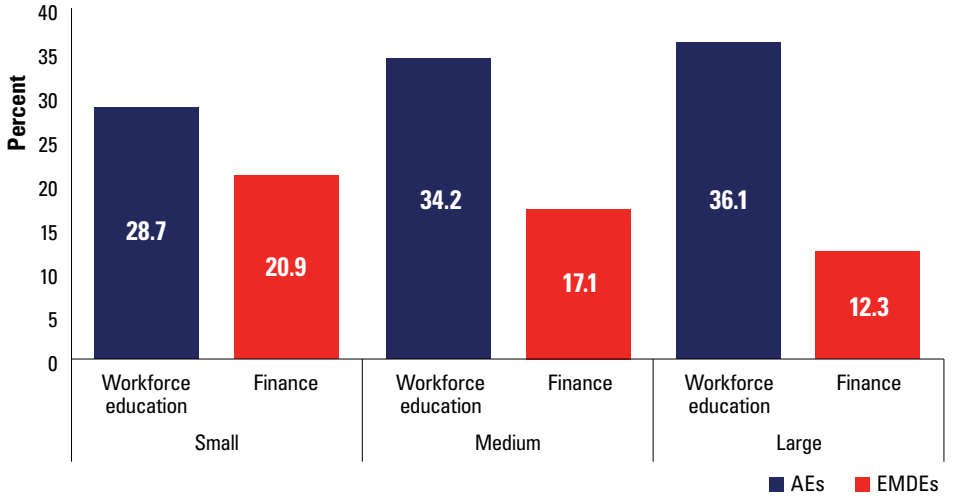
MSMEs account for the majority of employment in EMDEs. MSMEs, defined in this report as firms with up to 250 employees,[12] dominate the private sector in EMDEs. For instance, MSMEs with up to 49 employees, including self-employed entrepreneurs, represent between 80 and 90 percent of total employment in low- and middle-income countries.[13] MSMEs also play a critical role in inclusion. In Sub-Saharan Africa, for instance, women represent about 40 percent of the workforce in firms with fewer than 300 employees (excluding microenterprises), but only 5 percent of the workforce in larger firms.[14]

Growth and productivity constraints limit MSMEs' creation of more and better-paid jobs. Global research shows that young firms, which are often small, drive employment growth—that is, net job creation.[15] Recent World Bank analysis suggests a more complex pattern in EMDEs, whereby larger firms, particularly those with more than 100 employees, are the strongest drivers of employment growth. Smaller firms, particularly those with fewer than 10 employees, also contribute to net employment growth but to a lesser extent. However, additional research is needed to identify the types of small firms contributing to net job creation in EMDEs (World Bank 2025b).[16] Regarding better-paid jobs, evidence shows that firms with more than 100 employees tend to be more productive, typically paying about 15 percent higher wages in low- and middle-income countries and providing additional benefits such as stable contracts, formal employment, and essential nonwage benefits like health insurance.[17] It is these productivity gains, more than scale alone, that drive the ability to offer better-paid jobs.[18] While some firms in EMDEs reach 100 employees, most MSMEs struggle to grow and scale up.[19] Beyond their role in employment growth, MSMEs—particularly microenterprises—play a critical role in poverty alleviation in EMDEs, providing livelihoods and income stability for millions of households that lack access to formal wage employment.

Limited access to finance is one of the most binding constraints on MSME growth and productivity in EMDEs—and by extension, on job creation. MSMEs in EMDEs face a range of hurdles—from skilled labor shortages and inefficient management to inadequate infrastructure and broader business environment weaknesses—but empirical research consistently identifies limited access to finance as one of the most significant obstacles for MSMEs operations.[20] Firm-level surveys reinforce this picture. Across EMDEs, firms of all sizes most frequently cite finance as their top operational barrier, with small and medium firms reporting the highest rates (refer to figure 2.1). This stands in contrast to advanced economies (AEs), where access to finance does not rank among the top three obstacles for firms of any size. A recent World Bank report further confirms that MSMEs in EMDEs face greater financing constraints than both large firms and their counterparts in AEs, showing that improved access to finance can boost MSME productivity, innovation, and resilience (Didier and Cusolito 2024).

FIGURE 2.1. Finance is the Top Obstacle for Firms of all Sizes in EMDEs, and for None in AEs

Top Obstacle by Firm Size



Source: World Bank staff based on World Bank Enterprise Surveys data from 2021–24.

Note: The percentage shows the share of firms naming that obstacle as their biggest. Shares are not comparable across obstacles. The latest available Enterprise Survey was used for each country in the sample. AEs = advanced economies; EMDEs = emerging market and developing economies.

MSME access to finance and job creation: The evidence

Debt finance has a demonstrated impact on MSME employment growth, although the impact varies by type of firm and financing. Evidence is strongest for small and medium enterprises (SMEs), where formal loans raise employment by an average of 12 percent and boost sales and profits by about 18 percent compared to firms without such financing (Bruhn et al. 2025). For microenterprises, the picture on the impact of traditional microcredit is more cautionary, as studies found no robust average increase in paid workers. Where traditional microcredit has consistently delivered is in enabling enterprise creation and occupational choice: studies from several countries document meaningful increases in business formation among credit recipients, with larger gains among those with prior business experience. Furthermore, microcredit has evolved, and evidence shows that changes in product design features matter significantly. For example, grace periods, flexible repayment structures, and asset-linked products can raise profits where standard products have fallen short. At the same time, digital lending is becoming increasingly important for microenterprises and small firms. Early findings suggest digital loans can foster entrepreneurship, support job growth, and increase revenues for both micro and small enterprises.[21]

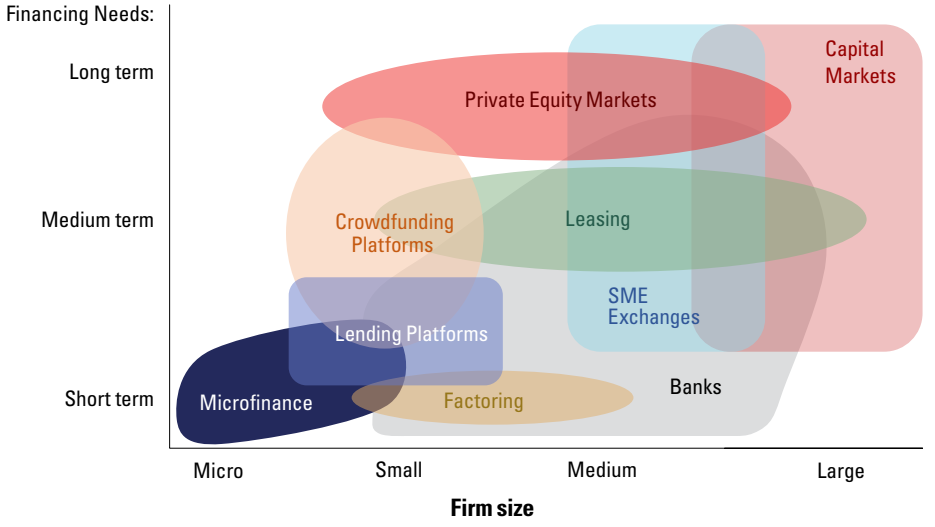
For young and innovative firms, equity financing can deliver outsized positive impacts on employment growth. While most evidence comes from AEs, the limited data for EMDEs shows similar results. The link is strongest for venture capital (VC) financing, with VC-backed firms in AEs increasing jobs by 24–40 percent and sales by 21–67 percent on average compared to firms without such support. These outsized effects result not only from investors' ability to select firms with the highest growth potential but also from investors' strategic support, including mentorship, monitoring, business planning, management and governance improvements, and access to strategic networks and markets, which goes beyond what debt financing traditionally offers.[22] The evidence for private equity (PE) financing is more mixed, reflecting various strategies, ranging from financing firm expansion to leveraged buyouts, but overall suggests that PE focused on expansion does enable employment growth and sales growth. This finding has direct policy relevance, as many EMDE governments seek to extend financial support programs beyond young innovative firms to include growing businesses.

Access to finance also enhances MSMEs' resilience to economic and climate shocks. Evidence, primarily for debt financing, shows that MSMEs with credit are better equipped to sustain operations during economic shocks, reducing the need for layoffs, wage cuts, or shorter working hours. Limited but emerging research on digital lending shows similar effects. Additionally, firms with financing experience smaller revenue declines from climate shocks compared to those without it—a finding of growing importance as climate-related risks intensify across EMDEs.

The Evolving MSME Financing Landscape

While little progress has been achieved over the past decades in closing the MSME finance gap, digital financial services are showing real potential to make significant progress going forward, particularly for debt financing. MSMEs are not a single category—they encompass a diverse range of businesses with different financing needs, from very small firms seeking mostly working capital, to medium-size firms also needing long-term debt, to innovative and high-growth businesses requiring equity financing (refer to figure 2.2). While the financing gaps remain large, financial technology—particularly data-driven finance—is addressing critical constraints that have long hindered MSME finance, reshaping the MSME finance ecosystem, particularly for debt finance.

FIGURE 2.2. Sources of MSME Finance Vary Depending on Firm Size and Financing Needs



Source: World Bank staff.
Note: MSME = micro, small and medium enterprise.

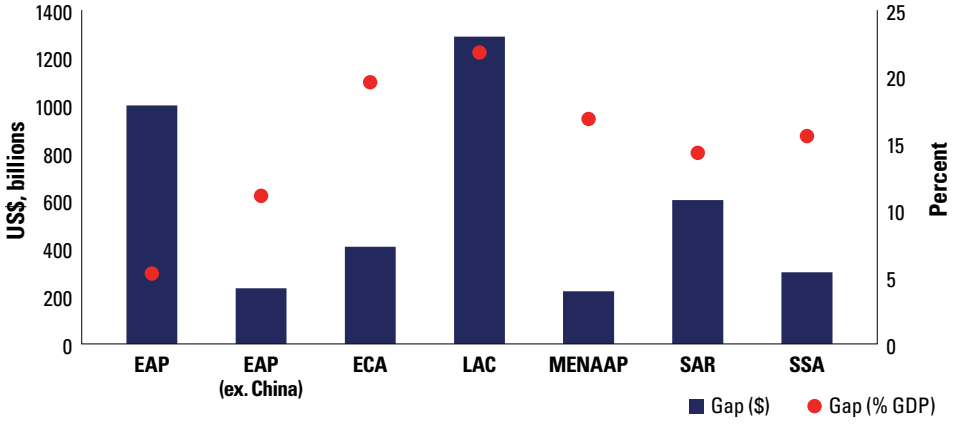
The credit gap and the landscape of debt financing

As of 2023, the credit gap for formal MSMEs in EMDEs stands at $4 trillion, which equals about 11 percent of EMDE GDP and 72 percent of estimated potential demand. This gap is defined as the difference between MSMEs' potential demand for credit and the actual credit they receive. It has risen in nominal terms from $3.6 trillion in 2019 but declined as a share of GDP, down from 12 percent in that year (IFC 2026). While credit supply has grown faster than estimated demand since 2019, the gap remains substantial, at 72 percent of demand. However, there are significant differences across regions (refer to figures 2.3 and 2.4).

On average, 39 percent of MSMEs in EMDEs are considered credit-constrained, according to the International Finance Corporation (IFC) methodology. If firms that do not seek external financing are excluded, this figure rises to 75 percent. In both cases, there are notable regional differences (refer to figures 2.5 and 2.6), but Sub-Saharan Africa remains the region with the largest percentage of credit-constrained firms. These figures exclude MSMEs in the agriculture sector, which generally face even greater challenges accessing finance.

FIGURE 2.3. The Size of the MSME Credit Gap Varies Considerably by Region

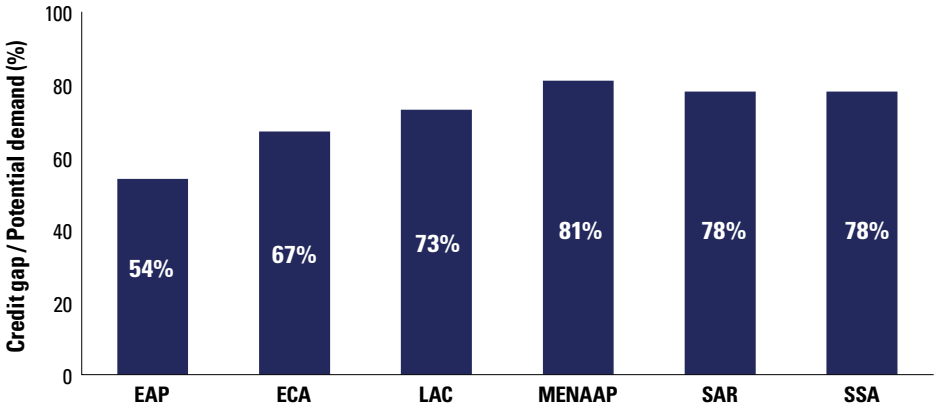
US dollars, billions; percent of GDP



Source: IFC 2026.

Note: Data as of 2023. EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MENAAP = Middle East, North Africa, Afghanistan, and Pakistan; SAR = South Asia region; SSA = Sub-Saharan Africa. GDP = gross domestic product. MSME = micro, small and medium enterprises.

FIGURE 2.4. The Aggregate MSME Credit Gap Exceeds Half of the Aggregate Potential Demand in All Regions

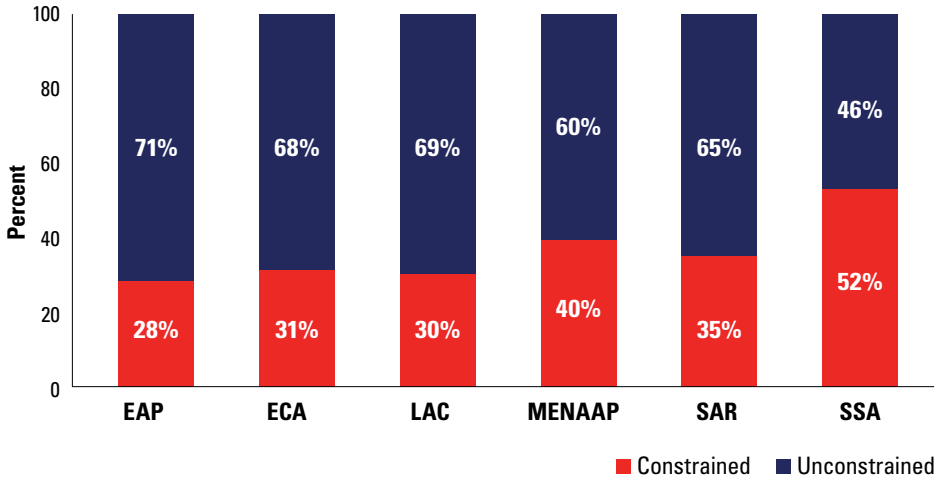


Source: IFC 2026.

Note: Data as of 2023. EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MENAAP = Middle East, North Africa, Afghanistan, and Pakistan; SAR = South Asia region; SSA = Sub-Saharan Africa. MSME = micro, small and medium enterprises.

FIGURE 2.5. A Large Share of MSMEs Are Considered Credit-Constrained in All Regions

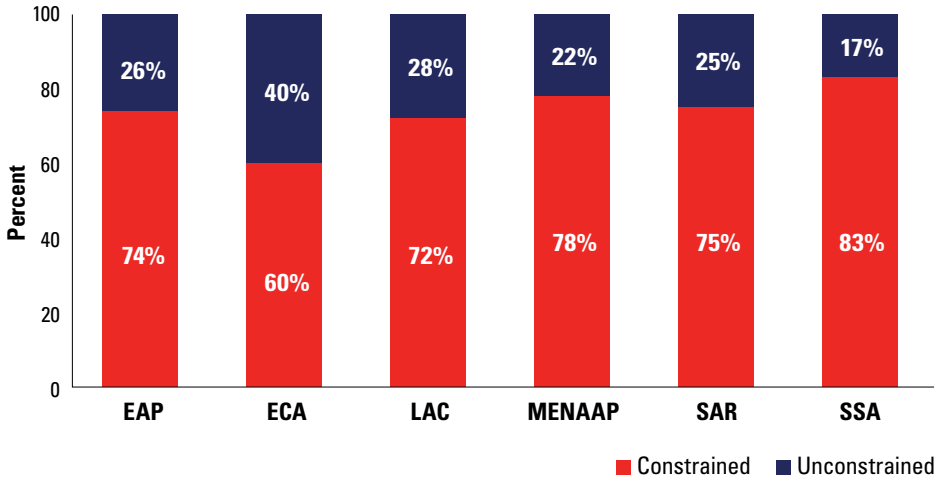
a. All firms in the sample



Source: IFC 2026, based on World Bank Enterprise Surveys data from 2021 to 2024.

Note: Simple cross-country averages by regions are shown. EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MENAAP = Middle East, North Africa, Afghanistan, and Pakistan; SAR = South Asia region; SSA = Sub-Saharan Africa.

b. Excluding firms that did not apply for external financing because they have sufficient capital



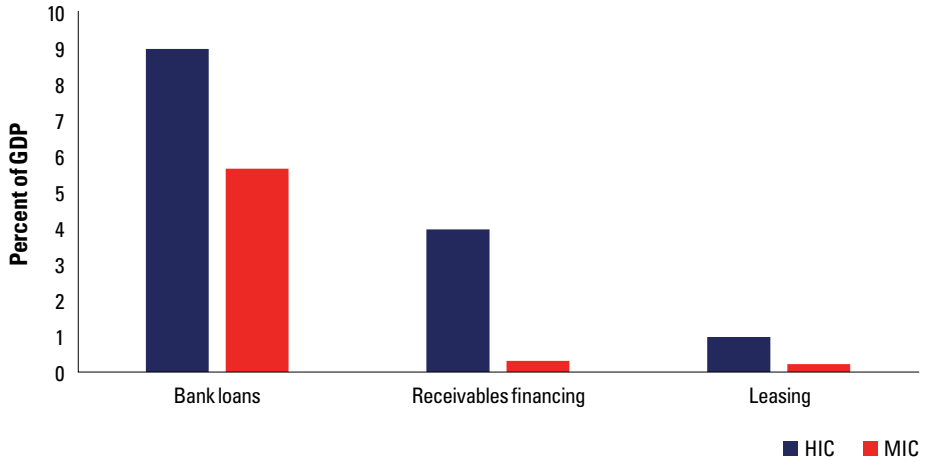
Source: World Bank staff, based on World Bank Enterprise Surveys data from 2021 to 2024.

Note: Simple cross-country averages by regions are shown. EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MENAAP = Middle East, North Africa, Afghanistan, and Pakistan; SAR = South Asia region; SSA = Sub-Saharan Africa. MSMEs =micro, small and medium enterprises.

Against this backdrop, the increased use of data-driven approaches is reshaping the MSME finance landscape, with the largest impact accruing to the smaller firms.[23] By harnessing big data, alternative data, artificial intelligence (AI), and automation, financial technology is tackling long-standing barriers to MSME finance: notably, MSME's limited credit and financial information, their lack of acceptable collateral, and high transaction costs of serving the segment. AI in particular is fundamentally changing how creditworthiness is assessed. Machine learning models, leveraging big data, can synthesize thousands of behavioral and transactional data points in real time, enabling assessments that are faster, cheaper, and accessible to firms with no formal financial history. Moreover, evidence indicates that data-driven assessments can have strong predictive power evaluating MSME's capacity to repay short-term debt. Beyond credit assessment, data-driven approaches are also enabling more tailored product design by introducing greater flexibility in loan tenors, repayment structures, and disbursement mechanisms that more closely align with the actual cash flows patterns and needs of different MSMEs. These forces, when combined with the expanded information flows enabled by open finance in some EMDEs, are reshaping the MSME finance ecosystem, with the most pronounced gains accruing to smaller firms. However, deliberate product design remains critical to ensure these gains extend to women-led MSMEs (W-MSMEs), which bear a significant share of the credit gap.

The pace of this transformation in select EMDEs, which has been driven by fintechs, is striking. Aggregated data indicate that by lending volumes, banks remain the key source of financing for MSMEs in EMDEs (refer to figure 2.6). However, these data mask the growing role of fintechs in financing smaller firms, a segment largely unattended by banks, which have focused on larger and more established firms providing both short- and long-term credit. Indeed, in countries such as Brazil, China, and India, fintechs have reached tens of millions of previously underserved borrowers—a pace of inclusion that decades of traditional intermediation failed to achieve. Thus far, this expansion has been concentrated among individual consumers and microentrepreneurs. Yet it reveals something consequential: digital infrastructure and data-driven finance have demonstrated a capacity for scalability that holds promise for the broader MSME segment.

FIGURE 2.6. Banks Are the Major Source of Debt Financing to MSMEs



Source: World Bank staff calculations based on International Monetary Fund, Organisation for Economic Co-operation and Development, Asian Development Bank, FCI Factors Chain International, and Solifi Global Leasing Report.

Note: The figure corresponds to the volumes of bank MSME loan portfolios, and of receivables and leasing financing that benefit MSMEs, based on World Bank staff estimates updating Carvajal and Didier (2024). The figure shows the median across countries within income groups. MSME bank loan data covers 119 countries (27 HICs, 92 MICs) in 2023, receivables financing data covers 84 countries (46 HICs, 38 MICs) in 2024, and leasing data covers 50 countries (35 HICs, 15 MICs) in 2023. These figures include financing by digital players in jurisdictions where they operate through traditional licenses, as disaggregated information is unavailable for most countries. HIC = high-income country; MIC = medium-income country; MSMEs =micro, small and medium enterprises.

Furthermore, fintechs' models are evolving, both to reach larger firms and provide longer-term financing. Fintechs have adopted a wide range of business models: some are balance sheet lenders such as digital banks and data-driven lenders, while others are off-balance sheet, such as factoring and crowdfunding platforms, which connect MSMEs with investors. Some are also relying on additional technological innovations such as tokenization, as seen in Brazil, to further compress transactions costs and reduce settlement. Overall, as a category, fintechs have traditionally offered small, short-term unsecured loans, many of them based on cash flows. In select jurisdictions, some mature fintech lenders have progressively extended loan sizes and tenors as they scaled, while others were deliberately designed as hybrid models, combining fintech capabilities with banking licenses, stable deposit funding, and transaction data from their own platforms. Operating at this scale is leading to hybrid credit assessment models, with data-driven underwriting remaining central, complemented in some cases by collateral. The notable difference is that these lenders typically accept a wider range of assets than traditional banks, including movable and intangible assets. Hybrid models that combine algorithmic data analysis with a human touch can be particularly beneficial for women-owned and led businesses, because digital delivery combined with relationship-based advisory can better address trust and information barriers that purely digital channels often fail to overcome for this segment. Realizing this potential, however, requires deliberate product design and targeting.

The potential of data-driven approaches and financial technology is being leveraged by traditional financial intermediaries to remain competitive and better serve MSME customers. World Bank operational experience suggests that adoption levels vary considerably by intermediary type and countries. Overall, evidence suggests a higher level of adoption by banks compared to other traditional intermediaries, such as microfinance institutions. Better credit assessment and automation are helping them expand their outreach, although countervailing factors such as capital charges on MSME lending relative to other activities are likely to continue limiting their appetite for smaller and riskier firms. Factoring companies represent the next tier of adoption. Aided by automation and, in some countries, the spread of e-invoicing, they can now serve smaller suppliers that were previously too costly to onboard. Microfinance institutions have invested in digitalization, but gains have been uneven, constrained by limited digital infrastructure, low client digital literacy—which disproportionately affects women—and legacy systems difficult to integrate with newer technologies. Leasing companies have made comparatively limited use of financial technology, with adoption largely confined to asset monitoring through digital and satellite tracking. These patterns likely reflect the inherent complexity of leasing transactions, which are longer in tenor and highly asset-specific, making them less amenable to the standardization underpinning the advantages of AI solutions elsewhere.

Beyond internal adoption, financial technology is also enabling new forms of partnership between regulated financial institutions, such as banks and payment institutions, and fintech firms, which are helping to reach smaller businesses, for example through embedded finance. This type of financing—which integrates financial services directly into nonfinancial platforms and underlying business activity—is emerging as a powerful channel to reach the last mile of MSMEs, delivering credit and payment solutions where they already operate. E-commerce platforms are extending working capital lines to their merchants; logistics platforms are offering vehicle finance and advances against in-progress receivables; wholesale and order management platforms are providing inventory finance to micro and small retailers; and fast-moving consumer goods platforms are extending supply chain advances to their distributors and retailers. These models represent a structural shift in how financial services are distributed, with significant potential to expand inclusion for firms that conventional channels have struggled to reach. Their core differentiator is the better and more granular insights these platforms and/or entities in the business value chain have on MSMEs.

In parallel with these developments in lending and distribution, in select jurisdictions, capital markets are playing an important role providing lenders, including fintech lenders, with access to long-term finance. In AEs and EMDEs with more developed capital markets, alternative credit providers are gaining access to these markets and securing the long-term funding needed to scale—as banks have done in many jurisdictions. In Brazil,

for example, credit funds have become a key funding channel for fintech lenders. They sell their MSME receivables to these funds, which raise capital from institutional investors and, following regulatory reforms in 2022, from retail investors too. Global players are also deploying debt funds to support MSME-focused lenders across EMDEs. Tokenized bonds issued by fintech lenders represent an early but promising frontier in lowering the cost and broadening the reach of the bond market for MSME lenders.

In select jurisdictions, capital markets are also opening up as a direct source of debt financing, especially for medium-size companies—complementing bank financing with greater flexibility and longer tenors. Credit funds lead this shift by providing tailored financing to mid-market companies. In tandem, streamlined instruments such as minibonds—corporate bonds issued under simplified requirements—are lowering barriers to entry, allowing smaller companies to directly access the corporate bond markets. Italy is a leading example, but some EMDEs, such as Peru, are following suit. Distribution is evolving in parallel, with crowdfunding platforms beginning to place minibonds directly with retail investors. The first issuances of tokenized minibonds in Italy point to the next frontier—reducing costs, enhancing transparency, and opening these instruments to a wider pool of investors.

The conclusion emerging is one of accelerating opportunities, with data and financial technology acting as catalysts for innovations that can meaningfully reduce the MSME credit gap, especially for underserved segments. Realizing this potential at scale, particularly across EMDEs, requires deliberate action: building the digital, financial, and data-sharing infrastructure that underpins data-driven finance; strengthening regulatory frameworks; expanding long-term funding for nonbank lenders; and deepening capital markets; while addressing demand-side barriers, including financial literacy and trust.

The equity gap and the landscape of equity financing

The World Bank estimates the equity financing gap for formal MSMEs in EMDEs at US$1.4 trillion annually for 2022–24, equal to 3.3 percent of EMDE GDP. This gap represents the difference between MSMEs' potential demand for equity, benchmarked against a reference country, and the actual equity received (refer to online annex for methodology, assumptions, and limitations). The estimate covers all stages of VC and early-stage PE most relevant to MSMEs. However, it is a lower bound as it does not capture the whole spectrum of medium-size firms (which typically includes firms with between 50 and 250 employees) due to data constraints that prevent further disaggregation. For firms with 100 employees or more, there is an additional equity gap of US$1.82 trillion per year (or 4.2 percent of EMDE GDP) in EMDEs, suggesting that the complete MSMEs equity gap is significantly larger than the lower bound presented above. All estimates exclude the agriculture sector.

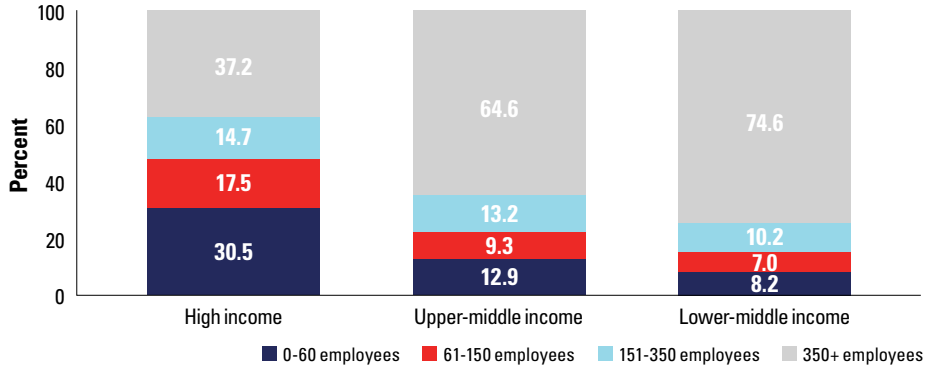
Among firms that could benefit from equity financing, 96 percent lack access in the median EMDE, impairing their ability to support innovative and high-growth firms crucial for job creation and productivity gains. Research shows that equity and not debt is the financing instrument of choice for innovation-intensive firms, uniquely linked to expansions in research and development (R&D) and intangible capital and to productivity growth in ways that credit markets are not (Didier and Cusolito 2024).

The equity gap is particularly severe for venture capital, creating a structural barrier for younger, innovative firms (refer to figure 2.7). The disparity is stark: in 2024, VC investment in middle-income countries was just 0.02 percent of GDP, compared to 0.18 percent in high-income countries. While VC industries in both groups share certain characteristics—a concentration in sectors such as technology and a preference for relatively mature firms of five years or older—VCs in EMDEs face added challenges that further restrict their ability to finance innovation at scale. The reach of VC in EMDEs is dramatically narrower, averaging about 2 companies per million people per year in MICs between 2010 and 2024, against 27 companies per million in HICs over the same period. Investment is also heavily skewed toward larger firms. Companies with more than 350 employees accounted for approximately 70 percent of VC investment volume in MICs, compared to 37 percent in HICs—suggesting that even within the EMDE venture ecosystem, the earliest-stage and smallest innovative firms remain largely shut out.

The financing gap extends to more established MSMEs seeking growth capital. For example, in 2024, PE investments reached just 0.07 percent of GDP in MICs, a fraction of the 0.69 percent recorded in HICs (refer to figure 2.8). Additionally, only a small share of PE capital in EMDEs is directed toward MSMEs (Didier and Cusolito 2024). SME exchanges, which primarily serve medium-size companies, accounted for 0.12 percent of GDP in MICs compared to 0.82 percent in HICs in 2024. However, many SME markets struggle to attract listings, particularly in EMDEs.[24] About half have fewer than 50 listed companies, and nearly all of these smaller markets are found in EMDEs.[25]

FIGURE 2.7. Venture Capital Is Especially Scarce for Smaller Firms in Developing Countries

Share of capital invested by firm size (percent)

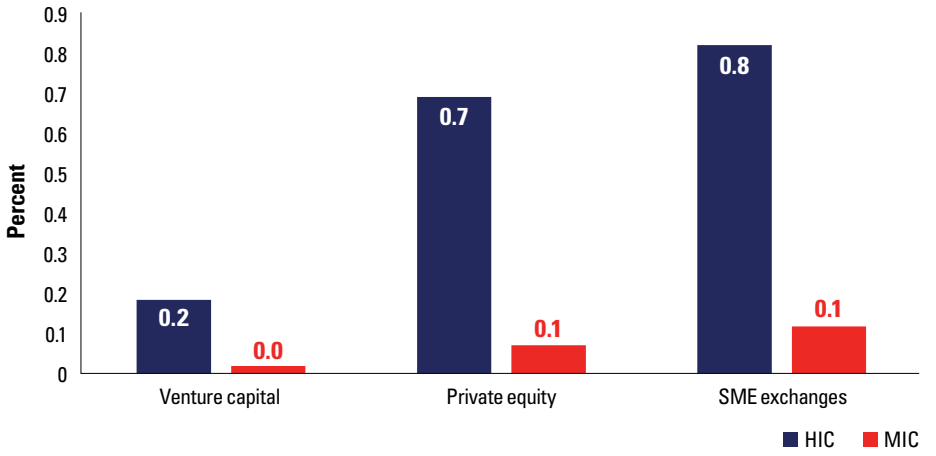


Source: World Bank staff calculations based on data from PitchBook and Didier and Cusolito 2024.

Note: Data as of 2024. The sample covers 136 countries, covering 66 HICs, 37 UMICs, and 33 LMICs as of 2024. HICs = high-income countries; LMICs = low- and middle-income countries; UMICs = upper-middle-income countries.

FIGURE 2.8. Only a Small Share of Equity Financing Is Directed to Middle-Income Countries

Equity financing by type of financing (percent of GDP)



Source: World Bank staff calculations based on PitchBook and World Federation of Exchanges.

Note: Data as of 2024. The figure shows the median across countries within income groups. Venture capital data cover 135 countries (63 HICs, 72 MICs), private equity data cover 107 countries (55 HICs, 52 MICs), and SME exchanges data cover 22 countries (12 HICs, 10 MICs) as of 2024. GDP = gross domestic product; HIC = high-income countries; MIC = middle-income countries; SME = small and medium enterprises.

Financial technology is making inroads in MSME equity financing along two distinct dimensions: broadening the investor base and enhancing operational efficiencies. On the investor side, the most visible channel is equity crowdfunding. In EMDEs with more developed capital markets, such as Brazil and Malaysia, crowdfunding is enabling young innovative firms to access retail investor funding directly, broadening their base beyond institutional and sophisticated capital. Volumes remain modest, but this channel helps earlier-stage companies raise capital, potentially making them more attractive to traditional VC. Tokenization of VC and PE funds is being piloted in select jurisdictions, with a complementary logic of lowering minimum ticket sizes, widening access, and offering investors more flexible exit options. On the operational side, the use of financial technology is supporting automating due diligence and portfolio monitoring for VC and PE funds, enabling real-time tracking of performance and streamlined reporting. More advanced applications, such as AI-driven deal sourcing, are gaining traction, although adoption remains uneven across firm size and market maturity.

However, the landscape emerging in equity financing is more complex than that in credit, and the role of financial technology is more limited. Financial technology can play a supportive role, for instance, through digital platforms for investor matching, and due diligence and portfolio monitoring. However, the structural foundations for VC and PE financing in most EMDEs remain underdeveloped, featuring ecosystems that have yet to generate a deep pipeline of investable companies, a nascent domestic investor base, and foreign investor appetite constrained by macroeconomic conditions, currency risk, and limited exit options. These complex challenges require a coordinated response: coordinated public action on investee pipeline and investor development, complemented by improvements in market, legal, and regulatory infrastructures.

Financial Sector Policy Recommendations

Closing the MSME finance gap requires a diverse ecosystem of providers across debt and equity—one that goes beyond banks and harnesses the transformative potential of data and financial technology, especially on the debt side. Banks remain essential to the MSME finance ecosystem, particularly for more established MSMEs that require a full financing continuum—from working capital to long-term financing. Greater use of data analytics and fintech partnerships can help banks extend their reach, improve credit assessment, and lower the cost of delivery—but banks alone cannot serve the full diversity of MSME financing needs. On the debt side, alternative credit providers are critical to reach smaller firms. Fintech lenders, in particular, have demonstrated a distinctive capacity to reach underserved segments through data-driven underwriting by drawing on alternative data sources such as transaction records, mobile payments, and e-commerce histories, and through lower-cost

digital delivery models that reduce barriers to access at scale. On the equity side, venture capital and private equity play an essential role in financing young, innovative, and growing firms whose needs cannot be met by debt alone. Building this more complete ecosystem requires deliberate policy actions to strengthen the enabling environment—with data and fintech as foundational priorities. In some countries, governments might also need to implement targeted financial interventions, where markets alone will not deliver. Demand-side interventions, particularly building MSME capabilities, including digital and financial literacy, are equally important and should be part of a broader MSME policy agenda, though they fall outside of the scope of this chapter.

Enabling environment

Governments should prioritize reforms of the enabling environment to harness the transformative potential of data and financial technology to close the MSME financing gap, while recognizing that asset-based and longer-term finance might require additional legal and regulatory reforms.[26] The foundation of these reforms is a robust data ecosystem—built on interoperable digital payments infrastructure, open finance, and modern credit reporting systems—to scale data-enabled MSME finance, matched by fit-for-purpose regulatory frameworks that expand the range of providers and products leveraging it. Beyond the data and financial technology agenda, expanding access to asset-based and longer-term finance requires legal infrastructure for modern secured transactions and collateral registries, tailored insolvency regimes, and enabling conditions for equity financing. Across all these areas, consumer and investor protection frameworks must keep pace with innovation. Critically, the enabling environment must be designed with adaptability in mind. The pace of innovation fostered by financial technology means that the providers and instruments of tomorrow may look considerably different from those of today.

1. **Foster a robust data ecosystem for MSME finance, built on developing digital public infrastructure: in particular, interoperable digital payments infrastructure, open finance, and modernization of credit reporting systems.**

   Closing the MSME financing gap requires, above all, that lenders can see the firms they are being asked to finance. For much of the MSME population—particularly smaller, informal, and younger firms—that visibility does not yet exist. Building this requires governments to act deliberately across three mutually reinforcing layers of data infrastructure (refer to box 2.1).

   The foundation of this framework is interoperable digital payments infrastructure. Every digital transaction generates a data record. For MSMEs lacking formal financial histories, these records can constitute their first verifiable business footprint, making

previously invisible firms visible to lenders. Thus, expanding digital payment infrastructure should be understood as a deliberate strategy to create the data trails essential for inclusive MSME finance, not merely as a modernization agenda. For this strategy to work, several conditions must hold. First, access must be affordable; high transaction costs result in low MSME usage, leading to a thin data footprint generated by this infrastructure. Second, systems must be interoperable and user-friendly; payment systems that operate in silos limit both the reach of digital transactions and the richness of the data trails they generate. Simple, standardized access channels further lower barriers to adoption. These include channels that allow payments to be addressed, for instance, to a phone number or tax identifier rather than a bank account, and QR codes that reduce onboarding costs for small merchants. Third, all relevant financial institutions should be connected to the payments system; interoperability is underpinned by universal participation of all relevant payment service providers. In many countries, this has been achieved through mandatory or near-mandatory participation of large banks, creating the network scale necessary for effective MSME finance. Further, policy and system design must allow nonbank providers to participate without routing through incumbent banks, through direct access to payment infrastructure on a provider-neutral, risk-based basis. In addition, third-party payment initiation arrangements should be allowed to enable greater integration of payment services into economic and social interactions (such as social media and e-commerce apps). Collectively, these can reduce costs, increase speed, and preserve competitive neutrality across financial providers, while proportionate oversight applied consistently across all provider types maintains system safety and integrity. Complementary initiatives—digitalizing merchant payments and invoices, and business process digitalization—further deepen that footprint.

The second key layer of this framework is open finance. Governments should advance reforms allowing third parties—with consent—to access MSME financial information held by financial institutions and initiate transactions on their behalf. This approach makes existing data mobile and actionable, directly addressing the information asymmetry that has historically excluded small businesses. It also enables MSMEs to portably present their financial history to competing lenders, fostering competition on price and terms, not just access. Realizing this potential requires open data frameworks—the technical and regulatory infrastructure, including interoperable APIs and consent architectures that govern how data flows securely across institutions and platforms. Governments can rely on the Key Considerations for Open Finance (CGAP et al. 2024) to guide their implementation. Governments should consider extending this logic to data they hold on MSMEs, including tax record, procurement history, and registration data to enable lenders to access it on a consent basis—thus, evolving from a concept of open finance to open data as countries such as Australia and the Republic of Korea are doing.[27]

The third layer is modern credit reporting systems. Credit reporting systems are an important component of the MSME finance ecosystem because they enable lenders to obtain a view of a borrower's total liabilities, not just their own exposure. The experience of countries like Brazil and Kenya, where the rapid expansion of digital credit contributed to over-indebtedness of microentrepreneurs, underscores the importance of this function, particularly as the universe of lenders expands beyond banks. But to fulfil this function, they need to be modernized by making them fully digital, with full-file reporting (including positive and not just negative information) and by covering information from all lenders (not just banks). Furthermore, other data points are now being used to assess the creditworthiness of MSMEs, such as tax records as well as telecommunications and utilities data, which are especially important for firms with "thin files." To unlock this potential, EMDEs' legal frameworks should enable easier access to these data. In some EMDEs, incumbent credit reporting systems are already expanding into this space, incorporating these data into their credit scorings. Other approaches, including new providers and open data frameworks using centralized architectures, are emerging. Authorities must ensure that irrespective of their legal nature—whether public registries or commercial entities, or hybrids—credit reporting systems, new data providers and new systems facilitating access to broader credit-relevant data are subject to public oversight and strong data privacy rules.

Together, these three layers form a data ecosystem that is generative, portable, and shared. Critically, the legal identity infrastructure—unique business identifiers, MSME registries, and tax identification (ID) systems—acts as a multiplier on this entire data layer: without a robust identity anchor, payments data cannot be reliably attributed to a specific borrower, portability cannot function, and the liability register cannot be complete. Digital connectivity is equally foundational: reliable information and communications technology (ICT) infrastructure and mobile access and data services are some of the prerequisites for the layers above to reach the underserved MSMEs.

2. **Foster a diverse range of providers and products through fit-for-purpose regulatory frameworks, with space to test and scale innovation.**

Reaching underserved MSMEs requires providers and products that banks alone cannot deliver—and the regulatory frameworks to enable them. For many EMDEs, this means proportionate licensing regimes for microfinance institutions, cooperatives, and fintech lenders—digital lenders, digital banks, and depending on country context, including also crowdfunding platforms that operate in the capital markets space—while ensuring that traditional intermediaries can enter into partnerships with fintech and e-commerce companies, such as in embedded finance. Proportionality is key: licensing requirements should reflect the size and risk of providers; otherwise,

licensing becomes a barrier rather than an enabler. Further, authorities should consider the implementation of regulatory frameworks for Banking-as-a-Service that allow licensed banks to offer their infrastructure—payments, deposits, and credit—to nonbank platforms through application programming interfaces (APIs), creating the legal and prudential foundation for certain types of embedded finance. Electronic Know Your Customer (e-KYC) frameworks are a critical complement to these reforms. Digital onboarding lowers the costs of customer acquisition and identity verification, thus enabling providers to reach smaller and more remote firms.

Equally important are the legal foundations for a broader range of financial products, including asset-based financing instruments such as factoring, leasing, and supply chain financing. In addition, governments should establish the legal and regulatory frameworks for securitization and credit funds—including robust special purpose vehicles that enable true sale, legally isolating MSME loans and receivables from the originators' insolvency. This gives investors legal certainty to participate at scale, allowing MSME lenders, including fintech lenders, to access the stable long-term finance they need to grow. Depending on the country context, the legal and regulatory frameworks for credit funds and minibonds can also open capital markets as a direct financing channel for medium-size companies.

Yet the most consequential providers and products of tomorrow might not yet exist or might not fit neatly into today's regulatory categories. Governments should consider implementing regulatory sandboxes and innovation hubs to bridge this gap. These mechanisms allow regulators and innovators to test new business models and financial products together, building an evidence base for frameworks that do not yet exist and ensuring regulation evolves with the market.

3. **Strengthen the legal foundations for asset-based finance and long-term MSME finance through modern collateral systems and tailored insolvency regimes.**

Data-driven underwriting expands access for firms with strong cash flows by eliminating the need for collateral. However, additional legal infrastructure is needed to support a wider range of financing options, from short-term factoring and leasing to long-term financing. The two most important components are modern secured transactions and collateral registries and tailored insolvency regimes, which support lenders in managing the associated credit risk.

Implementing modern secured transactions laws are the foundation of a sound collateral system. These laws should cover all types of movable assets, with notice-based registries, and enable effective out-of-court enforcement mechanisms. For innovative firms, ensuring that intangible assets—including intellectual property and

digital assets—can serve as collateral is particularly critical and must be supported by appropriate valuation frameworks. In many EMDEs, additional steps such as digital, centralized, or interoperable collateral registries can further lower transaction costs and accelerate registration of security interests.

Effective insolvency regimes are essential to completing the framework. They reduce lender risk by enabling faster and higher recoveries and encourage entrepreneurship through clear and predictable discharge rules. However, ordinary regimes have not worked for MSMEs. The World Bank Insolvency and Creditor/Debtor Regimes (ICR) Principles, revised in 2021, call for governments to adopt tailored insolvency regimes with a focus on simplifying in-court insolvency proceedings to reduce their cost and complexity, while lowering the barriers for MSMEs to access out-of-court restructuring procedures.

4. **Foster the legal and regulatory framework for equity financing, from private markets to listings.**

   Access to equity is crucial for innovative and growing firms whose needs cannot be met by debt alone, yet the enabling environment for equity financing remains underdeveloped in many EMDEs. Governments should ensure that MSMEs can raise funding in private markets while maintaining proportionate investor protections and that the legal and regulatory framework for fund managers and funds support the development of venture capital and private equity (refer to box 2.1). Depending on country context, laws and regulations for equity crowdfunding—including proportionate licensing regimes for platforms—should also be adopted. For EMDEs with more advanced equity markets, strengthening the environment for MSME listings, with an emphasis on proportionate disclosure and corporate governance requirements, can open an additional channel for growing firms. A well-functioning insolvency regime, as discussed, is a precondition for equity market deepening: predictable creditor protection and orderly resolution make risk capital willing to enter.

5. **Ensure that consumer and investor protection frameworks keep pace with fintech innovation and emerging risks.**

   The rapid growth of digital finance brings new risks alongside new opportunities. The growing use of digital technologies heightens cybersecurity, data privacy, and algorithmic bias risks, while new business models such as embedded finance can obscure pricing and increase misconduct risk. Governments must ensure that frameworks against deceptive and fraudulent practices apply equally to banks and new financial providers across all delivery channels, and are adapted to address the specific features of emerging business models. For capital market instruments like crowdfunding, adequate

safeguards—including investment limits for retail investors—must be established. Across the financial sector, operational requirements on cybersecurity, data protection, AI governance, and digital fraud should be reviewed regularly to ensure they remain appropriate as technologies evolve. Risk-based supervision, supported by SupTech and AI when possible, should underpin these frameworks and enhance regulatory capacity to monitor a rapidly changing landscape.

Box 2.1. Reforms to the Enabling Environment to Unlock MSME Finance

Public infrastructure as the foundation to expand MSME debt finance: the experience of Brazil

Brazil stands out as one of the most comprehensive examples of how a deliberately sequenced enabling environment can expand the access of micro, small and medium enterprises (MSMEs) to finance—not through a single intervention, but through a layered set of reforms that together transformed what alternative providers can do.

The foundation is PIX, Brazil's instant payment system launched in 2020, which enables 24/7 fund transfers across all account types at zero cost to end users. By end-2024, approximately 15 million businesses—overwhelmingly MSMEs—were active users, and nine out of ten small businesses now rely on it. Beyond payments efficiency, PIX's most important contribution to MSME finance is the data trail it generates. Every transaction creates a real-time, verifiable record of cash flows that lenders can use to assess creditworthiness in lieu of formal collateral or credit histories—a form of de facto financial identity for firms that previously had none.

Built on top of PIX is open finance, launched in 2021, which mandates application programming interface (API)-based, consent-driven sharing of customer financial data and integrates directly with PIX to enable payment initiation by third parties. Within two years, more than 27 million customers and 41 million accounts were participating. The Central Bank of Brazil estimates that open finance has contributed to a 25 percent increase in credit approvals for underserved borrowers, as richer data allows lenders to assess firms that would previously have been declined.

These infrastructure reforms were complemented by a clear regulatory pathway for fintech lenders. CMN Resolution No. 4,656/2018 introduced two fintech-specific credit licenses: the Sociedade de Crédito Direto (SCD), which allows fintechs to lend using their own capital through digital platforms; and the Sociedade de Empréstimo entre Pessoas (SEP), which enables peer-to-peer lending. Reforms enacted in 2025 have strengthened these regimes by scaling prudential

requirements based on complexity and volume of activity. In tandem, also in 2025, the Central Bank and the Monetary Council issued a joint resolution on banking-as-a-service, clarifying how regulated financial services—including credit operations—can be offered through third-party platforms and nonfinancial firms.

Finally, the Fundo de Investimento em Direitos Creditórios (FIDC) has provided fintech lenders a path to capital markets funding. This securitization vehicle allows fintechs to package MSME loan portfolios and sell them to institutional investors—and, following reforms introduced in 2022, to retail investors as well (CVM Resolution No. 175/2022).

Improving the regulatory environment to unlock equity financing for innovative and growing SMEs: the experience of Morocco

Morocco illustrates how targeted enabling environment reforms can lay the foundations for equity financing to function at scale. Its private equity and venture capital market faced a structural constraint familiar across many EMDEs: a legal framework for collective investment vehicles designed primarily for retail investors, ill-suited to the risk appetite and operational flexibility required by institutional investors.

To address this, the World Bank supported reforms to Morocco's private equity framework—the Organismes de Placement Collectif en Capital (OPCC) law—leading to the creation of a new instrument: the OPCC Règles de Fonctionnement Allégées (RFA), tailored for professional investors. The new regime allows funds to invest across a wider range of instruments, including loans, and establishes a streamlined authorization process by the Moroccan Capital Markets Authority, the Autorité Marocaine du Marché des Capitaux (AMMC), reducing the regulatory frictions that had previously deterred fund formation.

The results were catalytic. The Fonds Mohamed VI pour l'Investissement selected 14 OPCC RFA funds, collectively mobilizing US$1.45 billion in private capital alongside the Sovereign Fund's own contribution of US$450 million. The new framework also enabled the first investment by the International Finance Corporation (IFC) in a Moroccan-domiciled venture capital fund, targeting start-ups in Morocco, Tunisia, and Francophone West Africa—a demonstration effect expected to crowd in further international investment over time.

Targeted financial interventions

Fostering a more diversified financial system may require targeted financial interventions—but only where market failures justify them and as a complement, not a substitute for, reforms of the enabling environment.[28] In many EMDEs the limited depth of financial markets and mismatches between providers' risk appetite and investors and MSME financing needs can leave commercially viable firms without access to finance—even when the enabling environment is in place. These are the conditions that may warrant public financial support, deployed by governments directly or through their development financial institutions (DFIs). But the bar should be high. Interventions must address clearly identified market failures that the enabling environment alone cannot resolve; be calibrated to the minimum level needed to support market creation and catalyze private capital rather than crowd it out; and be designed from the outset with exit in mind. There is no single recipe. The appropriate mix will vary significantly with country context, reflecting differences in financial sector's maturity, institutional capacity, and the nature of the underlying market failures being addressed. Some cases where these interventions might potentially be needed follow.

Funding facilities may be needed to scale up the operations of financial providers, particularly fintech lenders and other alternative credit providers. In many EMDEs, access to stable, long-term funding is one of the most binding constraints on alternative lenders' ability to scale—constraints that enabling environment reforms alone are unlikely to fully resolve, given the limited depth of capital markets.[29] The appropriate instrument will depend critically on country context and market maturity. In less developed markets with limited capital market depth, more direct funding instruments may be the only practical entry point, ideally structured with co-financing requirements to ensure additionality and limit fiscal exposure. But as financial markets deepen, the priority should shift decisively toward capital markets as the primary channel—via instruments such as securitizations and credit funds. Public interventions should play a catalytic rather than a substitute role, aimed at fostering the development of market-based funding solutions for lenders, and be time bound. This is being done in leading jurisdictions. In the United Kingdom, for example, the British Business Bank provides catalytic funding through warehousing facilities, with refinancing via capital markets, and has also implemented investment programs via intermediated funds to support fintech lenders in scaling up (refer to box 2.2). Across Europe, domestic DFIs have collaborated with the European Investment Fund to scale up securitization markets through both investment programs and guarantee facilities.

Derisking facilities may also be needed to encourage financial providers to expand their long-term product offerings to MSMEs. Even with available long-term funding and strengthened movable collateral and insolvency frameworks, these conditions

alone may not suffice to shift lenders toward longer-tenor products due to uncertainties surrounding borrower performance over extended horizons, requiring some level of risk-sharing. Partial guarantees and similar arrangements can bridge the gap between financial providers' risk appetites and MSMEs' financing needs. Critically, this need extends beyond banks: alternative lenders with business models suited to longer-term products may equally require derisking support to enter or expand in this space. These facilities must be designed to develop markets, not merely to subsidize them. Incentive alignment can be achieved through mechanisms such as first-loss retention requirements, risk-based pricing, and innovative tools such as auction-based mechanisms for allocating guarantee rights.

In more mature markets, targeted interventions may also be warranted to scale up MSMEs' direct access to capital market financing. This is particularly relevant for medium-size firms with the potential to grow. Capital markets can offer not just an additional funding source, but longer tenors and better terms than bank financing alone—reducing dependence on a single channel and strengthening firms' financial resilience as they scale. In Italy, guarantee schemes and investment programs for minibond portfolios have helped create a functioning market for medium-size companies, enabling greater diversification of funding sources and improved access to competitive financing.

Expanding equity financing for innovative and growing firms—whose needs cannot be met by debt alone—may also require targeted financial interventions. VC and private equity markets remain significantly underdeveloped across many EMDEs. Catalytic public support—primarily through investment—is often needed to develop them. Use of private sector structures (in particular, professionally managed funds) is critical to instill investor confidence and mobilize private capital at scale. Instrument flexibility is crucial (refer to box 2.2). Allowing both equity and quasi-equity investments addresses founders' fears of losing control while partially mitigating exit constraints in thinner markets. In some contexts, capital alone may not suffice. Risk-sharing mechanisms, such as tranche structures or asymmetric profit and loss arrangements, may be necessary to bring the risk-return profile within range for investors, including foreign ones. Support to ecosystem providers—incubators, accelerators, and business development services—should also be considered, because they are often critical to building a pipeline of investment-ready firms. Overall, equity interventions require a longer time horizon than most public programs. Fund deployment, portfolio maturation, and exit cycles can span a decade or more. Governments must be prepared to commit patient capital accordingly.

The design of these interventions is critical to ensuring their catalytic role. Many EMDEs have deployed lines of credit, derisking facilities, and investment programs without always achieving lasting market development outcomes, often due to design weaknesses. Drawing on experiences across AEs and EMDEs, Carvajal and Didier (2024) set out

four overriding design imperatives: (1) sharpen targeting and tailoring through proper segmentation and diagnostics—including an explicit gender lens—to ensure interventions genuinely address the funding needs of underserved segments; (2) accompany financial support with capacity building—directed both at MSMEs to strengthen the pipeline of bankable and investment ready firms, and financial intermediaries to develop products and capabilities needed to serve them effectively; (3) place private capital mobilization at the center of design objectives, thus discouraging direct lending by governments or DFIs; and (4) strengthen accountability through robust monitoring and evaluation (M&E) and coordination arrangements.

Box 2.2. Expanding Financing through Targeted Financial Interventions

Scaling up fintech lenders and other alternative lenders: the experience of the United Kingdom

The United Kingdom (UK), through the British Business Bank (BBB), offers one of the most developed examples of targeted financial support for alternative lenders. Beyond access to existing guarantee programs, the BBB has developed two innovative instruments to address their specific funding gaps relying on capital markets.

ENABLE Funding operates as a two-phase warehouse and refinancing facility for nonbank lenders, providing asset finance, lease finance, or peer-to-peer lending to smaller UK businesses. In the first phase, the BBB provides committed funding during the lender's origination and ramp-up phase, allowing it to build a portfolio of SME assets without first demonstrating the track record that institutional investors require. In the second phase, a portion of the BBB's commitment is refinanced through a capital markets transaction—typically an asset-backed security—through which private institutional investors replace the BBB as the funding source. The BBB's participation is explicitly temporary: it bridges the gap that prevents fintechs from accessing capital markets directly, then exits as private capital takes over.

The FinTech Co-Investment Approach, implemented in 2025, targets the early-stage fintech lender funding gap by co-investing alongside a specialist private credit fund manager—Avellinia Capital—that in turn provides funding to fintech lenders and asset originators. The structure is analogous to a fund-of-funds approach. It leverages the manager's origination and due diligence capacity, serves multiple fintech lenders simultaneously, and catalyzes private co-investment alongside BBB capital.

Scaling up equity financing for innovative firms: Jordan

Jordan offers a compelling example of how public funds can be used to catalyze private equity financing for innovative start-ups and SMEs, including through a deliberate focus on underserved groups. Supported by a World Bank lending operation, Jordan created the Innovative Startups and SMEs Fund (ISSF)—a US$98 million vehicle aimed at expanding the supply of early-stage financing.

The ISSF follows a fund-of-funds approach, investing primarily through private domestic and regional funds providing early-stage financing to Jordanian start-ups, complemented by direct co-investments. Allocations across seed, early-stage, and venture capital were calibrated based on diagnostic work identifying specific market gaps. A private sector manager was appointed to run the ISSF and an independent investment committee established to make investment decisions—both critical to instilling investor confidence. The ISSF also included components to support incubators, accelerators, and angel networks, and made specific efforts to reach women-owned and women-led businesses.

Since becoming operational in 2018, the ISSF has mobilized more than US$230 million in private capital, attracted 20 venture capital funds that have financed 140 start-ups, and co-invested directly in 25 additional start-ups—collectively creating more than 2,500 jobs. More than 50 percent of financed firms were led by youth and more than 20 percent were led by women. A further 700 start-ups benefited from capacity-building services. With remaining funds still to be deployed, the full impact is expected to be considerably larger.

Chapter 3. Narrowing the Insurance Protection Gap for Natural Disasters

The Insurance Protection Gap for Natural Disasters

The importance of insurance for development

Insurance increases resilience to shocks and improves livelihoods for vulnerable households and businesses. With US$4.3 trillion in total claims payments worldwide in 2023,[30] insurance helps households, farmers, businesses, and countries cope with shocks that would otherwise severely constrain economic growth and development. Ex ante (before shocks occur), insurance can encourage productive investment (Stoeffler et al. 2022), support the adoption of technology (Cole and Xiong 2017; Hill et al. 2019; Karlan et al. 2014), and promote investment in human capital (Barrett et al. 2025). Ex post (after the shock occurs), insurance can prevent people from falling into poverty, mitigate food insecurity (Jensen et al. 2017), and help avoid negative coping mechanisms, such as forced sale of productive assets and child labor (Gehring and Schaudt 2023).

Furthermore, insurance helps small businesses recover more quickly from shocks. A one-percent increase in insurance penetration reduces disaster recovery time by almost 12 months (Cambridge Centre and AXA 2020). In the Philippines, firms with weather damage insurance experienced fewer job losses and faster recovery of productivity after floods (World Bank 2025).

Insurance can also help unlock long-term investment. Insurers around the world had assets of more than US$42 trillion in 2023 (IAIS 2024). Their long-term investment horizon also positions the sector as a key supporter of long-duration projects in crucial areas such as infrastructure.

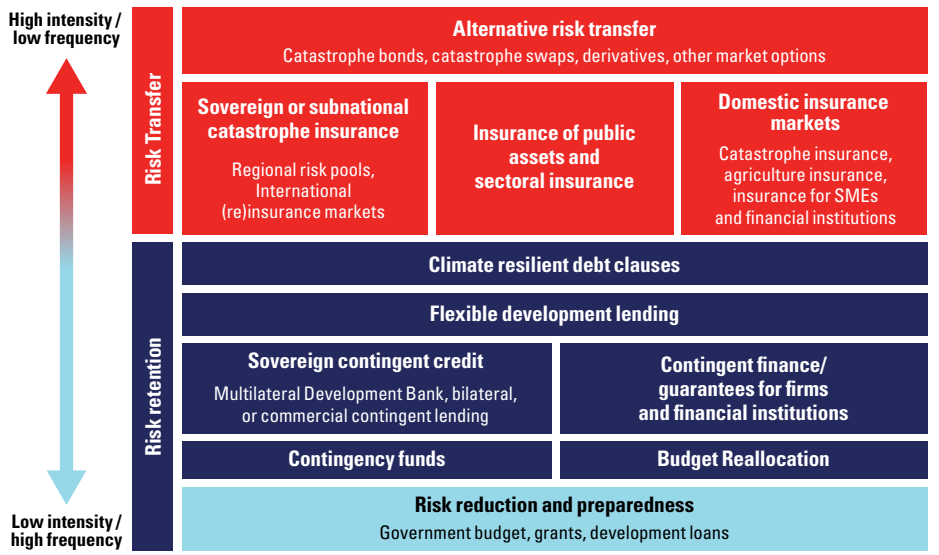
However, the sector remains underdeveloped in emerging markets and developing economies (EMDEs). EMDEs account for just 13 percent of global insurance assets (IAIS 2024) and 3.4 percent of claim payments (OECD 2025)—in sharp contrast with the fact that they represent 40 percent of disaster-related economic losses around the world (WMO and UNDRR 2023).

The natural disaster insurance protection gap

Damage and economic losses caused by natural disasters have been increasing in recent decades. Globally, the frequency and severity of natural disasters such as hurricanes, wildfires, and floods have been increasing. When combined with growing urbanization, changes in land use, and construction and economic activity in high-risk areas, this leads to a rapid increase in losses. In 2025, insured economic losses from global natural disasters were 27 percent higher than the long-term average since 2000; 6 out of the top 10 global economic loss events were in EMDEs (Brazil, Caribbean, China, East and South Asia) (Aon 2026a).

A layered mix of instruments can be used to protect against the growing impact of natural disasters. Risk layering, at both the macro and micro levels, helps to optimize financing, improve cost-effectiveness, and address the timeliness of funding. The three layers focus on (1) risk reduction and preparedness, (2) risk retention, and (3) risk transfer strategies (refer to figure 3.1). Risk reduction refers to measures aimed at mitigating or reducing physical risks in order to lessen the impact of natural disasters. Risk retention involves contingent financial instruments, such as contingent credit lines that provide immediate liquidity following a natural disaster, as well as budget reallocations, which redirect funding from other planned government programs in response to such events. Market-based risk transfer products form the top layer and include domestic insurance, public asset insurance, sovereign or subnational catastrophe insurance, and alternative instruments such as catastrophe bonds.

FIGURE 3.1. Risk Layering of Financial Instruments for Countries



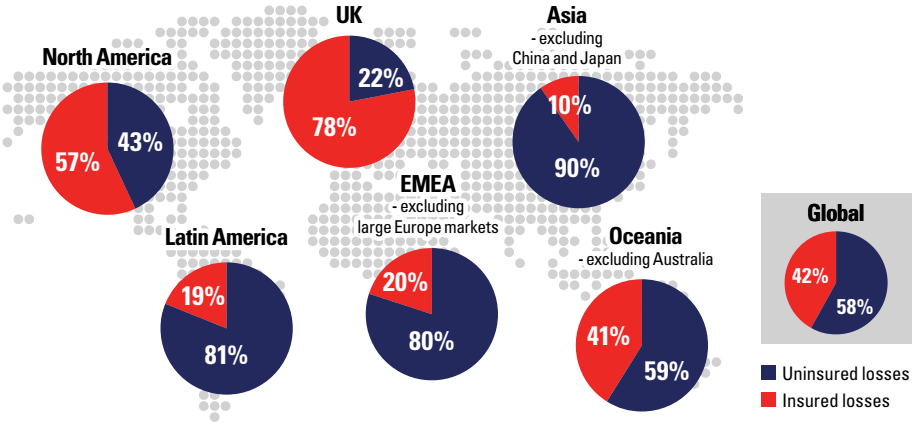
Source: World Bank staff.

Note: SMEs = small and medium enterprises.

A high natural disaster protection gap persists in EMDEs. This gap is defined as the total losses from natural disasters that are not covered by insurance. The 10-year average global natural disaster insurance protection gap is 58 percent (amounting to US$181 billion in 2024) (refer to figure 3.2), but it reaches 80–95 percent across much of Africa, Asia, and Latin America—including 79 percent in Mexico, 91 percent in India, and 94 percent in China (Aon 2025a; Swiss Re Institute 2025).

FIGURE 3.2. The Ten-Year Average Natural Disaster Protection Gap

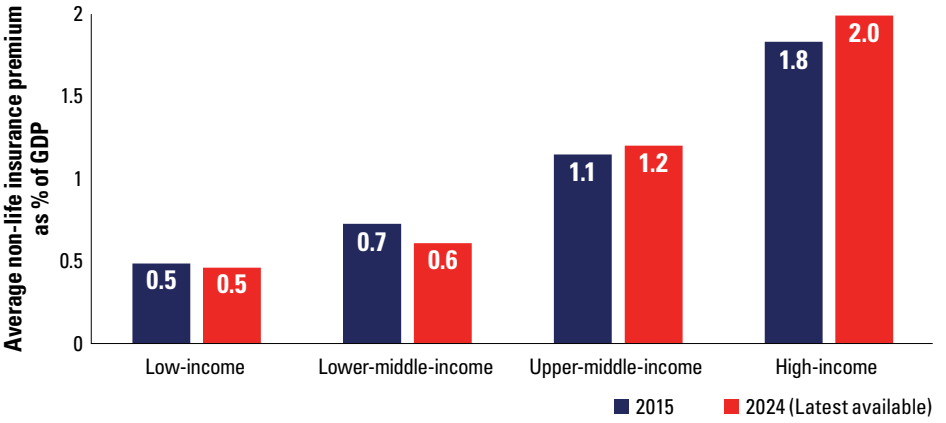
Uninsured and insured losses, percent of total losses



Source: World Bank staff calculations based on data from Swiss Re Institute.
Note: EMEA = Europe, the Middle East, and Africa; UK = United Kingdom.

Insurance markets in EMDEs, particularly in low-income countries, face substantial challenges in achieving scale. Supply-side challenges include a lack of data, expertise, appropriate regulatory and supervisory frameworks and lack of scale to attract global reinsurance. Demand-side challenges include low affordability, financial literacy, a lack of trust, and appropriate products that meet specific needs of consumers (World Bank 2013). These challenges are paired with practical challenges, such as lower asset values and highly remote populations, which limit the viability of traditional insurance products and channels. As such, there is a marked difference between insurance penetration in EMDEs and AEs. This penetration has barely changed in EMDEs over the past 10 years (refer to figure 3.3).

FIGURE 3.3. Penetration of Non-Life Insurance is Low and Not Increasing in EMDEs



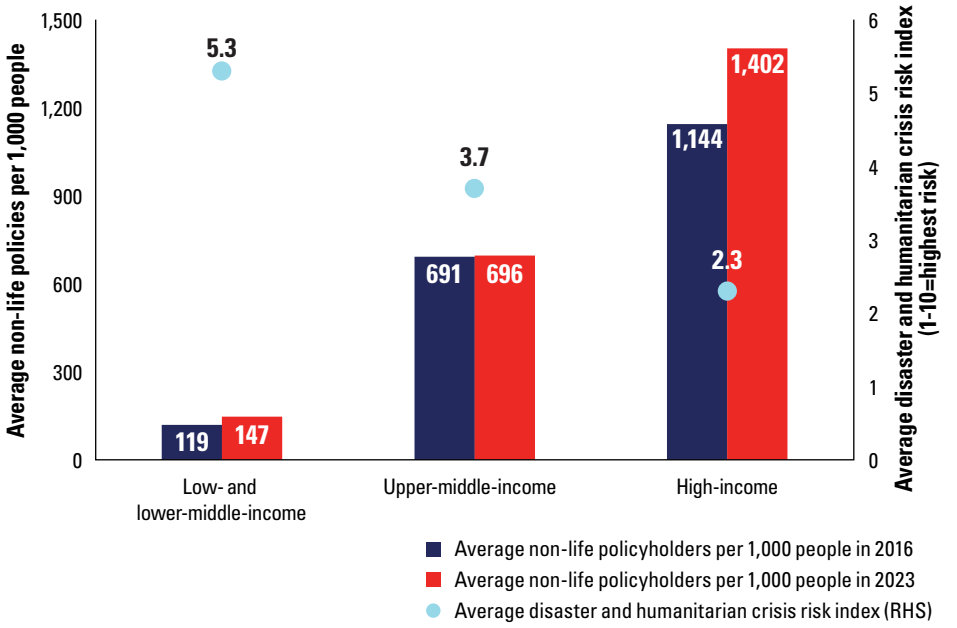
Source: World Bank staff calculations based on AXCO data (as of May 2, 2025).
Note: EMDEs = emerging markets and developing economies; GDP = gross domestic product.

Although penetration has remained low for most EMDEs, some countries have seen progress. Non-life insurance markets are often dominated by traditional products, such as property insurance and motor third-party liability insurance—typically the most prominent type of non-life insurance. Insurance against natural disasters is often a small fraction of domestic non-life insurance in EMDEs and tends to develop only after other non-life products mature. However, there is an increasing focus on insurance against natural disasters. Countries such as Mexico, Türkiye, Malawi, and Morocco, and regions such as the Caribbean and the Horn of Africa, are among those which have made meaningful progress.

Among EMDEs, access to insurance is lower in low-income countries, where vulnerability to climate-related disasters is often higher. Access to insurance is substantially lower in low-income countries: on average, there are 147 non-life policies per 1,000 people in low- and lower-middle-income countries, compared to 1,402 in high-income countries. This contrasts starkly with the Index for Risk Management (INFORM) index of disaster and humanitarian crisis risk,[31] on which lower-income countries score twice as high as high-income countries (refer to figure 3.4). This means the countries most exposed to natural disasters are also the least protected (refer to figure 3.5).

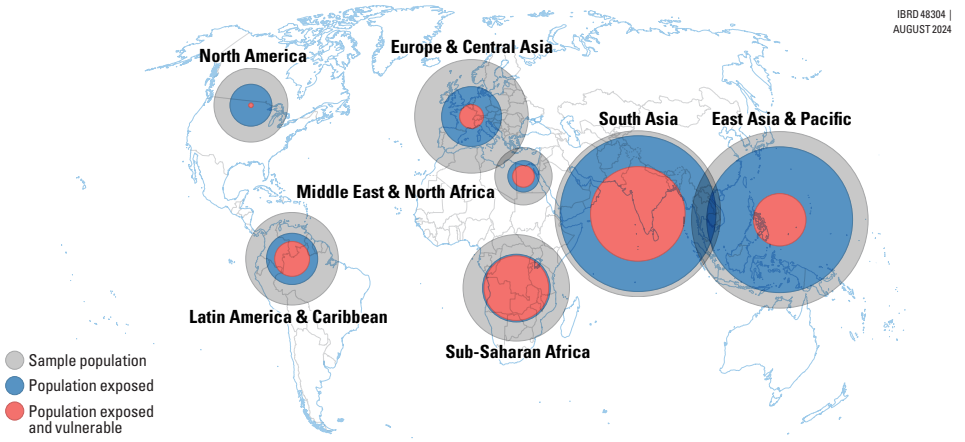
FIGURE 3.4. The Countries Most Exposed to Natural Disasters Are the Least Protected

Insurance protection versus risk exposure



Source: World Bank staff calculations based on International Monetary Fund (IMF) Financial Access Survey, and INFORM.

FIGURE 3.5. Share of the Population that is Exposed and Vulnerable to Climate-Related Hazards Is Very High in Some Regions



Source: World Bank 2024.

Note: Data as of 2021. World Bank staff calculations based on World Bank Group Scorecard indicator data on percentage of people at high risk from climate-related hazards. The exposed population is the population that may be affected by a hazard, whereas the vulnerable population lack the means and the mechanisms to withstand the resulting impact.

Foundations of Insurability: Reducing Exposure to Risk

Risk reduction is foundational for insurance markets to develop and improve the availability and affordability of insurance. Rising natural disaster risks are increasing insurance costs, making insurance less affordable (or providing less adequate cover), and further widening protection gaps. This happens through two simultaneous mechanisms. On the supply side, insurers withdraw or restrict coverage. On the demand side, rising premiums and reduced incomes make insurance unaffordable to consumers even where it remains available. The exit of some insurers from certain markets illustrates the growing insurability dilemma. EMDEs are also facing severe implications of challenges in accessing reinsurance and designing sustainable insurance programs.

Governments could incentivize households, businesses, and financial institutions to invest and reduce risk (refer to box 3.1). They should enforce resilient building codes and land-use planning to moderate construction in high-risk areas; have strict policies around disaster aid to prevent households from living in hazardous areas and underinsuring; quantify public contingent liabilities to identify cost-effective risk reduction opportunities; and share data with financial institutions—for instance, through the availability of flood risk maps and hazard data to identify high-risk areas and motivate risk reduction activities. Regulators should enhance financial institutions' (such as banks') understanding and accountability of risk. Insurers should consider risk-based pricing and link insurance products with risk reduction.

Box 3.1. Linking Insurance and Risk Reduction

Insurance can contribute to reduction of vulnerability, exposure to physical risk, and economic losses through the following measures:

- **Government support to data and analytics that help target and quantify the benefits of risk reduction** by development of risk data; clear and enforced building codes; and development of country-specific taxonomy of resilience investments while building evidence on their risk reduction value.

- **Public-private programs using payouts to build back better.** The Flood Re program in the United Kingdom pools flood risk to maximize the insurance coverage that the market can provide even to high-risk areas, with the government acting as insurer of last resort. It supports Build Back Better policies that provide policyholders with up to £10,000 of their payout for property flood resilience measures when repairing their properties after a flood.

The program only supports properties built before 2009; thus, new construction is strongly disincentivized in high-risk areas (which can be identified using government flood maps).

- **Underwriting practices.** The provision of insurance coverage can incentivize the private and public sectors to take prevention measures. The upfront payment of risk-based premiums can incentivize policyholders to take measures to limit losses, but only where such risk reduction activities are translated into reduced premiums. Many insurers—in both emerging market and developing economies (EMDEs) and developed markets—do not decrease premiums for risk reduction. This is due in part to data limitations. Nevertheless, there is a growing body of examples, such as a program developed in Tahoe, California, that offers a 39 percent lower premium and 89 percent lower deductible in areas that benefit from steps to reduce the risks of nature-based wildfires (WTW 2025).

- **Insurance products that directly lead to increased physical resilience.** Some insurance products can directly reduce risk due to the nature and use of payouts. For example, insurance for mangroves or coral reefs, which provide resilience against disasters, can be linked to restoration and maintenance activities to ensure continued resilience. The Mesoamerican Reef Fund program in Belize, Guatemala, Honduras, and Mexico, is an example.

- **Insurance to enable investment in resilient projects.** Large investment projects, such as resilient infrastructure, require insurance to manage risk for investors and hence crowd in private capital.

Challenges for the Supply and Demand of Disaster Insurance

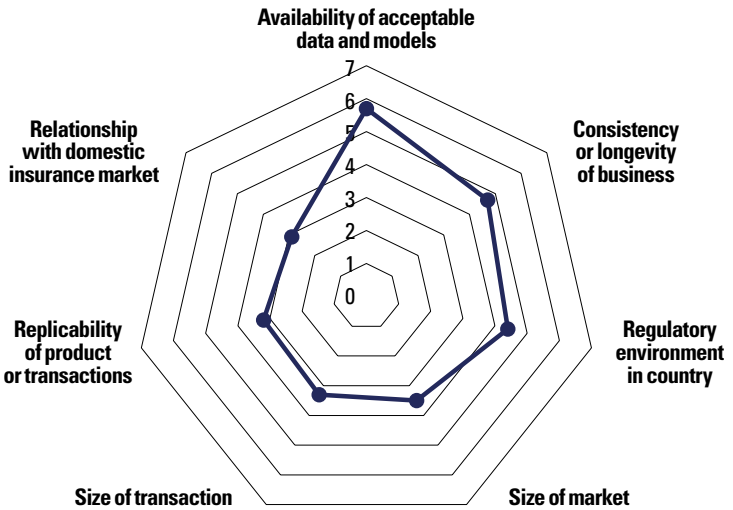
Two surveys to help identify the main supply- and demand-side constraints to the development of disaster insurance in EMDEs underpin this section. One survey was conducted with insurance supervisory authorities ("supervisor survey"). The other focused on the global reinsurance industry ("market survey").[32]

Supply-side challenges

The availability of acceptable data, models, and expertise is a major constraint to developing disaster insurance in EMDEs (refer to figure 3.6). Natural disaster insurance can be highly specialized, requiring an understanding of complex products, risk modeling,

actuarial expertise, advanced technology, and specialized loss assessment. This expertise is often not readily available in EMDEs, especially those without a large natural disaster insurance market. The market survey highlighted that low technical capacity could increase lead times to develop new products, complete transactions, and grow markets. The supervisor survey highlighted that when data are scarce or not reliable, insurers and reinsurers are more prudent—charging higher premiums or avoiding the market entirely. Disaster insurance requires data on the assets exposed to risk (location, value, and attributes such as construction type); data on the occurrence, location, and impact of natural disasters; data on historical insurance claims and other quantification of damages from disasters; data on vulnerable populations, such as microeconomic and demographic data; and data on the occurrence and extent of natural hazards (such as rainfall amount and timing, ground shaking, or windspeed). These data are typically required over a long period of time at a high level of geographic resolution (because disasters' impacts can vary substantially for different assets in different locations).

FIGURE 3.6. International Insurance and Reinsurance Participants Point to Lack of Acceptable Data and Models as Major Factors Curtailing Natural Catastrophe Risk Insurance in EMDEs



Source: World Bank survey with international insurance and reinsurance market participants.

Note: Average score (out of 7) shown across options provided to participants in the market survey, with 7 being the highest importance. Based on a sample size of 10 respondents. EMDEs = emerging market and developing economies.

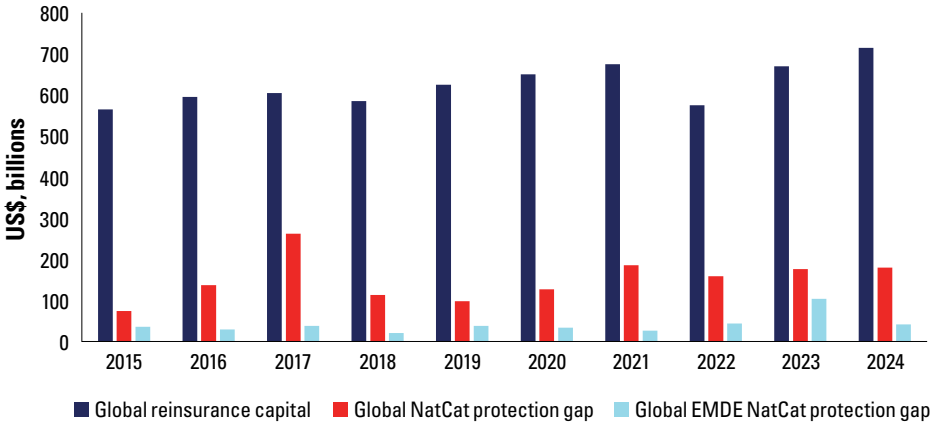
An enabling regulatory environment is essential for fostering growth and stability in the insurance industry, while safeguarding policyholders. Two key components of an enabling regulatory environment are a risk-based solvency regime (RBS) and market conduct supervision. An RBS regime aims to ensure that insurers maintain capital commensurate with their risk level and remain financially resilient, thus enhancing market stability and consumer confidence. Market conduct supervision for insurance refers to oversight of insurance and insurance intermediaries to ensure they operate in a fair, honest, and transparent manner, with a focus on consumer protection and prevention of unfair or deceptive practices. It contributes to the resilience of the sector and helps increase the effectiveness of insurance as a means to narrow the natural catastrophe protection gap. The supervisor survey showed that most supervisory authorities have risk-based supervision (78 percent), risk-based capital frameworks (52 percent), and conduct-of-business requirements (88 percent). However, 21 diagnostic reviews indicate that the regulatory environment in many low-income countries remains underdeveloped.[33]

Global and regional reinsurance capacity is crucial for natural disaster insurance markets. Reinsurance covers more than half of insured losses when major disasters strike (Swiss Re 2025), as domestic capacity is usually insufficient to provide the necessary coverage due to the highly volatile nature of losses. Reinsurance costs are a major component of insurance premiums for natural disaster cover.

Although global reinsurance capital is growing and could be mobilized to cover natural disaster risk, the market does not prioritize EMDEs. Market survey participants estimated that approximately 5 percent of their reinsurance premium collected for natural disaster risk is related to EMDEs, even though emerging markets represent 40 percent of global economic losses from disasters (WMO and UNDRR 2023) and a disaster insurance protection gap totals about US$40 billion (refer to figure 3.7). The insurance sector can scale up to mitigate insurable risk, given that global reinsurer capital reached a record high of US$715 billion in 2024 (Aon 2025b). However, reinsurers surveyed confirmed that their focus is currently on profitable business with less volatility. Half plan to expand into EMDEs, but they are prioritizing middle-income countries.

Whilst international reinsurance markets must be a major part of closing the protection gap, there is a need for governments and regulators to support domestic direct insurers to retain more risk. Over-reliance on reinsurance reduces the incentives to invest in strong underwriting and claims management; increases reinsurance pricing due to reduced confidence; and leaves insurers (and therefore policyholders) highly exposed to global reinsurance market cycles.

FIGURE 3.7. Global Reinsurance Capital Is Available to Close the Natural Disaster Protection Gap



Source: Reinsurance capital–Aon; Global Nat Cat Protection Gap–Swiss Re; EMDE Nat Cat protection gap estimated from Swiss-Re data.

Demand-side challenges

The market survey identified lack of demand as a fundamental constraint to disaster insurance market growth. The supervisor survey identified similar factors (refer to figure 3.8):

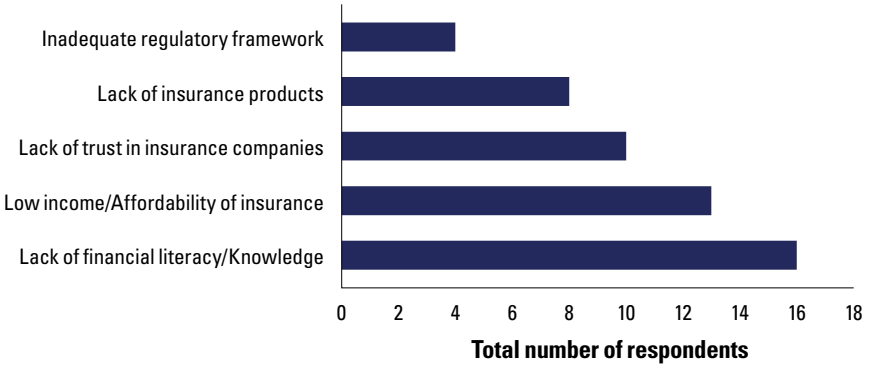
1. **Affordability.** Low disposable incomes make insurance a low priority for most households in EMDEs. Rising premiums—driven by worsening climate risk—are compounding the affordability gap, particularly for the most exposed populations.

2. **Low awareness and financial literacy.** When consumers better understand the risks they face, the scope of coverage needed, and the products they purchase, insurance demand can increase, provided affordable products are available that meet their needs. The Insurance Commission of the Bahamas reported that recent efforts to improve access to natural disaster insurance include a push to promote financial literacy across all demographic groups.

3. **Lack of trust in insurance due to bad experiences and products that do not meet the needs of EMDEs.** When products do not provide coverage against the risks facing EMDEs or fail to suit their needs and operational reality, low value for vulnerable households, businesses, and governments naturally results in low demand. The supervisor survey cited lack of transparency in claims management and decisions, high premium costs, lack of clarity in coverage, and the perception of insufficient coverage as reasons for mistrust.

4. **Lack of suitable insurance products.** In some Muslim countries, religious values can affect the suitability of traditional insurance solutions that are not Shariah-compliant. Insurance products may not always be equally suitable for men and women. Evidence indicates that men and women experience risk differently, possess varying relationships and trust levels in formal (financial) institutions, and have different asset ownership (Akter et al. 2016; Bageant and Barrett 2015). This can create gaps in suitable products for women and result in lower insurance uptake.

FIGURE 3.8. The Supervisor Survey Identified Several Factors as Inhibiting Development of the Market for Disaster Insurance



Source: 2025 WB-IAIS survey of International Association of Insurance Supervisors (IAIS) members.

Financial Sector Policy Recommendations

Efforts to narrow the insurance protection gap for natural disasters must be tailored to each country's unique context. Factors to consider include market development, financial capacity, and the types of risks faced since there is no "one size fits all" solution. Boxes 3.2 through 3.10 provide examples in EMDEs.

1. **Implement sound regulatory and supervisory frameworks that support private sector-led appropriate disaster insurance products and effective innovation.**

   EMDEs should consider adjusting regulatory and supervisory frameworks to enable the design and effective distribution of appropriate and affordable disaster insurance solutions by private insurers. This includes: (1) allowing microinsurance and parametric insurance; (2) developing proportionate regulations that enable distribution via alternative networks, including bundling with other products,

while ensuring that necessary consumer protection measures remain in place; and (3) permitting schemes like risk pooling or alternatives to reinsurance risk transfer mechanisms, data-sharing schemes, and innovative technology uses.

Parametric (micro)insurance provides quick payouts based on predefined triggers, such as amount of rainfall or windspeed, and can provide liquidity when it is most needed after an event occurs. Microinsurance offers affordable and accessible products to low-income populations. However, these products require data and specialized expertise from insurers to be well designed and implemented. They also require expertise from supervisors to ensure consumer protection and enabling regulation. Box 3.2 describes how Chile is tackling these and other issues.

Box 3.2. Chile's Fintech Law (2023)

Chile's Fintech Law (Law No. 21,521) and its open finance system are actively addressing the country's insurance protection gap by modernizing digital infrastructure, lowering distribution costs, and enabling technology-driven coverage options like parametric and disaster micro-insurance. It includes a chapter allowing commercial parametric insurance to be provided. The insurance market regulator is responsible for issuing regulations dealing with the requirements, information, types of products, indexes, and the characteristics of the policies.

Regulatory sandboxes can help ensure that new products meet market needs and contribute to a more inclusive and innovative market. In many jurisdictions around the world, such as Bermuda, regulatory sandboxes have been developed to provide insurers with flexibility to develop and test innovative products such as (blockchain-based) parametric insurance. In Zimbabwe, the Insurance and Pension Commission implemented a regulatory sandbox that allows for the development of innovative products in a controlled environment.

Supply-side measures to support availability of natural disaster insurance

2. **Invest in data infrastructure to develop the disaster insurance market and promote adequate pricing.**

   Finance ministries and regulators should systematically collect and share disaster cost data. Open data initiatives and facilitated data-sharing between the insurance

industry, risk modelers, and public agencies can significantly improve the actuarial basis for product development. Some tools are made globally available, such as through the Insurance Development Forum (IDF) (refer to box 3.3). Development institutions such as the Global Shield Against Climate Risks can fund the creation of public catastrophe risk models as regional public goods.

Box 3.3. Insurance Development Forum's Support on Parametric Flood Insurance in South Africa

South African cities have faced severe floods in recent years, including in Durban in 2022 and Cape Town in 2024 and 2026. The Insurance Development Forum (IDF) is providing support to develop a catastrophe model for extreme parametric flood insurance based on rainfall data in one city, using its outputs to inform resilience actions.

Global data sources can help address the gap, but they often need to be paired with substantial data-gathering efforts within the country. There is a rapidly growing body of risk data and analytical tools available globally, based on satellite data and other technological advances, which can be accessed by insurers and other stakeholders.[34] However, global tools and models alone cannot provide a sufficiently detailed and reliable understanding of risk for local insurance operations. Local stakeholders must also invest in improving processes and systems to record and share data on disaster expenditure, damages, and economic impact (refer to box 3.4), while working with development partners to build data and risk modeling capacity. Table 3.1 summarizes steps that can be taken by government, insurance supervisory authorities, and the private sector.

Box 3.4. Peru's Data Collection for Public Assets

Peru's financial regulator, Superintendencia de Banca, Seguros y Administradoras Privadas de Fondos de Pensiones (SBS), is collaborating with the Ministry of Finance to enhance data collection for public assets. SBS advises on the development of databases that meet the quality standards required for catastrophe modeling, enabling better risk assessment for public schools and other government-owned properties. These efforts not only provide a clearer picture of the exposure currently covered by private insurance but also highlight the need for broader risk management strategies to reduce the country's vulnerability to natural disasters.

TABLE 3.1. Actions to Enhance the Supply of Disaster Insurance through Better Data

Actor	Actions
Government	• Partner with global data sources to collect data on the cost of natural catastrophes and develop the capacity to analyze and interpret hydrometeorological data.
Insurance Supervisory Authorities	• Build comprehensive risk data infrastructure—systems and processes to gather and share data on disaster risk and impacts, such as asset registries, disaster expenditure tagging, and modeling on the likelihood and severity of disasters—for insurers to more accurately assess climate-related risks. • Promote data sharing between the public and private sectors to improve access to data on climate risks and natural disasters.
Private Sector	• Strengthen the collection of data (for example, insurance claims). • Develop and refine risk models. • Increase the use of technology (for example, remote sensing and digital applications for client relationships and contract administration).

Source: World Bank staff.

3. **Develop Public-Private Insurance Partnerships (PPIP) to address reinsurance gaps and scale limitations.**

In advanced economies (AEs) and EMDEs alike, PPIPs can be an effective tool to reduce the protection gap. PPIPs leverage the public and private sectors to share risk, provide supportive investments, and build the right conditions and incentives.

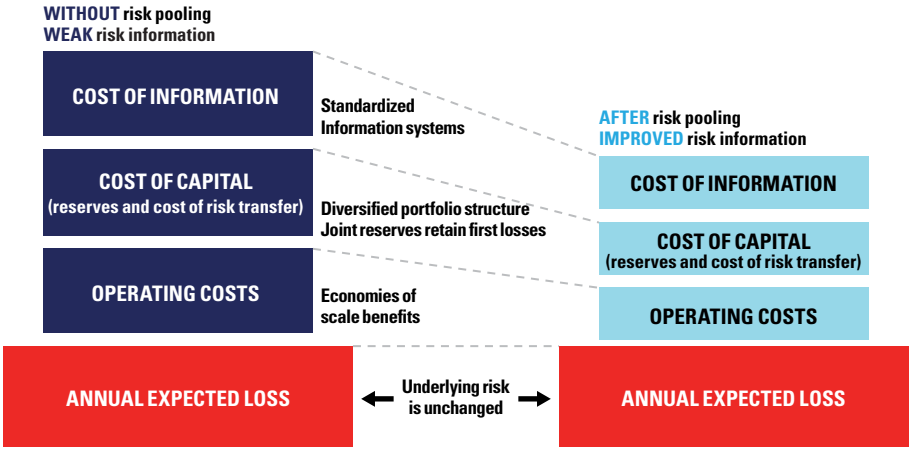
PPIPs as Risk Pools

Governments in EMDEs can support the development of new domestic coinsurance pools in partnership with private sector insurers, while considering increased participation in regional sovereign risk pools, for example by providing capital or purchasing insurance.

Catastrophe risk pools can reduce the natural disaster protection gap and increase affordable coverage in high-risk regions. These can take various forms. In national catastrophe coinsurance pools, local direct insurers issue common contracts and share risk across the country to increase their capacity and grow the market. In regional sovereign risk pools, a regional insurer provides insurance to governments, allowing risk to be shared across the region. Such pools facilitate access to international reinsurance and capital markets—thus reducing the costs of transferring the risk of severe catastrophes—along with access to capacity building and sharing of technical expertise and resources, such as catastrophe risk modeling and data (refer to figure 3.9). Regional risk pools have also driven innovation in the design and application of insurance products suited to the needs of EMDEs. For example, a product by the

Southeast Asia Disaster Risk Insurance Facility (SEADRIF) makes payouts based on reported disaster losses. Regional arrangements are also increasing investment in products from other risk pools, such as the Caribbean Catastrophe Risk Insurance Facility (CCRIF), Pacific Catastrophe Risk Insurance Company (PCRIC), and African Risk Capacity (ARC), which focus on insurance for specific livelihoods and sectors.

FIGURE 3.9. Risk Pooling Can Drive Down Costs



Source: World Bank Disaster Risk Financing and Insurance Program 2015.
Note: The size of the boxes is not proportional to each component's actual contribution to the insurance premium.

Although these pools have proven to be an important tool for EMDEs, they can still do more by scaling up, covering new countries, and strengthening technical capacity. By 2025, regional risk pools collectively provided insurance coverage totaling about US$1.7 billion. Meanwhile, national coinsurance pools, such as the Turkish Catastrophe Insurance Pool (TCIP) and the Compagnie Nationale d'Assurance Agricole du Sénégal (CNAAS), have seen success in increasing domestic capacity to offer insurance, retain risk domestically, and transfer catastrophe risk to international markets.

PPIPs for public assets

Governments in EMDEs can also create national PPIPs, by pooling their insurable assets to create scale and encourage consortiums of insurers to underwrite the risk (refer to box 3.5).

Box 3.5. Insuring Public Assets in Indonesia

In order to strengthen its financial resilience to disasters, the government of Indonesia transferred risks from more than 10,000 public buildings to domestic and international markets through a public-private consortium of more than 50 insurers and reinsurers. Further, the government established a Pooling Fund for Disasters to protect the central budget and strengthen systems for the transparent flow of disaster funds.

Mandatory insurance schemes

EMDEs can also consider developing mandatory insurance schemes, as long as measures are in place for those who cannot pay. By spreading risk among a larger pool of policyholders, such schemes can improve affordability and financial resilience, particularly in vulnerable regions. However, enforcing compulsory coverage can be difficult in practice. In Switzerland, take-up of property catastrophe insurance is close to 100 percent,[35] whereas in Türkiye compulsory coverage translates to 59 percent take-up (TCIP 2023) (refer to box 3.6) and is substantially lower in some other countries. Mandatory insurance also requires high-quality products, service, and supervision to ensure that products provide value and maintain incentives for risk reduction. Alternatives include: mandatory credit-linked insurance and bundling (commonly property insurance to access mortgages, or crop-credit insurance); or compulsory extensions to existing insurance contracts to include natural disaster protection, such as in Morocco, which also features a parallel solidarity fund to protect those who do not have insurance.

Box 3.6. The Turkish Catastrophe Insurance Pool (TCIP)

TCIP is mandatory for urban areas and now insures 59 percent of the population (short of 100 percent due to challenges in comprehensive enforcement). TCIP was established to increase market penetration and offer affordable earthquake insurance. The government provides a financial guarantee and the enabling environment to lower the cost of insurance, while allowing companies to compete to operate the TCIP; private insurers then act as agents. TCIP has also achieved efficiency and speed of payouts, as demonstrated following the 2023 earthquake.

4. **Foster innovation and adoption of financial technology to distribute insurance to remote and underserved populations.**

   Technological innovations can facilitate providing disaster insurance to vulnerable groups in EMDEs. Such innovations can include remote sensing and AI for risk assessment, parametric insurance products, and mobile payments. Through partnerships with traditional private insurers who hold the license and underwrite the risk, insurance technology (InsurTech)[36] and financial technology (fintech)[37] unlock new markets by bringing data, distribution channels and customer relationships. The use of digital payment systems and mobile money (refer to chapter 1) can dramatically increase the speed and transparency of insurance payouts while reducing costs and opening access to insurance to new customers.

Demand-side measures to support affordability and value of natural disaster insurance

5. **Improve products and financial education to improve understanding of the potential value and role of disaster insurance.**

   Insurers offering disaster insurance should focus on continuous improvements to products and services and financial education. For countries with less developed markets, initial actions could be government dissemination of information on the importance of insurance and disaster risk prevention and reduction, with insurers providing clear consumer information documents on risk exposure and available coverage. More developed markets could develop strategies to raise public awareness of natural catastrophe (NatCat) risks and the role of insurance in building resilience and providing financial protection. These efforts could be sponsored or implemented by governments, supervisors, insurers, or industry associations, and can be tailored to local conditions and values (refer to box 3.7).

Box 3.7. Suitable Insurance Products

Takaful offers financial protection that is aligned with Islamic values. The development of a takaful regulatory framework in Somalia and suitable operational models in Ethiopia and Somalia has enabled US$119 million of takaful cover for 166,000 pastoralists (World Bank 2025).

Retakaful (analogous to reinsurance) capacity remains a major challenge for scale-up of takaful

programs. This area could be a focus for future public-private partnerships.

In India, the development of parametric heat insurance with CGAP for the Self-Employed Women's Association (SEWA) has scaled up from an initial pilot of 21,000 to cover 225,000 women to mitigate risks faced by women in unsafe working conditions.

An innovative impact trigger introduced to assist Lao PDR with the World Bank support in May 2025 through the Southeast Asia Disaster Risk Insurance Facility (SEADRIF) adapts the conventional parametric insurance design to trigger payouts linked to the cumulative number of people affected by disasters. Lao PDR received US$2 million quickly after about 300,000 people were affected by multiple disasters between May and August 2025.

6. **Include disaster insurance as part of a package of financial instruments, such as savings and credit, that finance risk cost-effectively.**

Natural disaster insurance should be linked to other goods and services that enhance risk management and productivity for beneficiaries. Access to a range of financial services, including savings, payments, and credit, is needed to take and manage risk. Additionally, insurance take-up can be increased by bundling it with complementary inputs and services, such as credit or agricultural inputs, or by delivering protection through aggregators, such as lenders, cooperatives, or employers. In Senegal, the World Food Programme strengthened farmer resilience by providing risk reduction (agricultural interventions), risk transfer (insurance), risk retention (savings), and prudent risk taking (credit) to more than 50,000 households, with further scale-up underway (WFP 2025). Box 3.8 describes an initiative in the Horn of Africa.

Box 3.8. Comprehensive Financial Resilience and Technology-Enhanced Insurance in the Horn of Africa

In 2022, Djibouti, Ethiopia, Kenya, and Somalia launched the De-Risking, Inclusion and Value Enhancement of Pastoral Economies (DRIVE) project, which includes technology-enhanced, micro-level index-based livestock insurance, alongside savings incentives to cope with minor droughts and encourage financial inclusion. The insurance provides a timely payout to pastoralists at the start of dry season if satellite observations of vegetation fall below a certain level. Payouts are disbursed through digital platforms, ensuring both timeliness and

transparency. In its first three years, DRIVE has scaled up to more than 470,000 policyholders with more than three million people supported in Ethiopia, Kenya, and Somalia (of which 55 percent are women). In addition, more than 412,000 bank accounts are in use, with more than 40 private sector partners for distribution and total capital enabled of US$250 million.

7. **Use premium subsidies and public guarantees selectively to support market growth whilst avoiding distortions.**

EMDE authorities should use subsidies and guarantees selectively and transparently and avoid price caps. Where premiums are genuinely unaffordable for low-income households, targeted premium subsidies can be justified—but only if they are time-bound, fiscally sustainable, and embedded in a broader financial resilience package (refer to box 3.9). Poorly designed subsidies may lead to fiscal drain and market distortion. Price caps can perversely incentivize construction and economic activities in excessively high-risk areas while leading to insurers leaving the market or facing insolvency.

Box 3.9. The Selective Use of Premium Subsidies

Premium subsidies can be a powerful tool to encourage scale-up of disaster insurance markets. They can be used to generate economies of scale and diversification of insurance, increase supply of credit and stimulation of productive investment, and reduce costs compared to the counterfactual of slow ad-hoc disaster aid to uninsured households and businesses. They also stimulate more investment into broader insurance sector systems. As a risk management intervention, agricultural insurance premium subsidies are also permissible as a subsidy by the World Trade Organization (WTO) up to certain limits.[a] Those globally amount to more than US$20 billion annually and are present in most large-scale markets (Hazell and Varangis 2020).

Premium subsidies come with many challenges. Subsidies can be politically difficult to remove or reduce once in place. Markets supported by subsidies may collapse when the subsidies are removed. Subsidies can inflate premium rates. Poorly designed and targeted subsidies can perversely incentivize activities that do not make economic sense without subsidies (such as construction or growing vulnerable crops in excessively high-risk areas).

Premium subsidy regimes can be a huge fiscal burden that may not be sustainable in many emerging markets and developing economies (EMDEs), and some countries subsidize a high

proportion of premiums, which can exacerbate the risks and challenges highlighted above. In Brazil in 2015–16, for example, the government had to sharply cut its premium subsidy program because its burden had grown too large (World Bank 2017). However, the level of premium subsidy provided in different countries varies greatly, from 25 percent (Brazil) to 90 percent of the premiums (India), while many others are somewhere in between (China at 36 percent; Spain and Senegal about 50 percent; and the United States about 60 percent).[b]

If governments decide to offer premium subsidy programs, they must be carefully designed to be fiscally sustainable and selective, and create proper incentives. Such programs may be justified if they directly address a market failure, aim to build experience with insurance, are targeted, are partial and time-bound, support programs that have the potential to scale, replace other subsidies, have a clearly identified budget cost, are low enough not to incentivize maladapted activities, and are provided alongside advice and finance to make better risk-informed decisions. Premium subsidies should only be used to support products that have been assessed to provide value for money and utilized only after an effective enabling environment for disaster insurance has been put in place.

Given the potentially significant financial contribution to premium subsidies, governments can better leverage them to incentivize risk reduction and other social objectives. Premium subsidies could be provided to contribute to the uplift required to finance "build back better" components of insurance products, partially finance premium reductions for resilience investments (in the short term while data and experience are built to justify commercial premium reductions), or support certain groups or activities. For example, in Spain, premium subsidies for agriculture insurance through Agroseguro are higher for those practicing ecological farming, as well as for young farmers.

a. Refer to "Domestic Support in Agriculture: The Boxes," WTO.

b. For Brazil, (World Bank 2017); for India, Government of India, Administrative Dashboard, https://pmfby.gov.in/adminStatistics/dashboard; for China, Liang (2025) and Li et al. (2025); for Spain, Agroseguro (2025); for Senegal, UNDP (2024); for the United States, USDA (2025).

8. **Use insurance to backstop government social transfer programs.**

Alternatives to insurance, such as adaptive social protection or solidarity mechanisms, are needed for the poorest and most vulnerable populations in EMDEs. They experience substantial economic and social impacts of natural catastrophes but are often unable to afford insurance. Governments and humanitarian organizations play a crucial role in protecting these populations in the event of a shock, but ad hoc disaster relief can be slow and expensive (USAID 2018). Adaptive social protection mechanisms have been developed in countries in Sub-Saharan Africa and other regions—such as the Social

Cash Transfer Program in Malawi—which can scale up social support to vulnerable populations after a shock, based on clear rules and operating procedures that improve the timeliness and reliability of support (refer to box 3.10).[38] Such schemes can be underpinned by disaster risk financing and insurance mechanisms to ensure sufficient and timely funding. In other countries, such as Morocco's Fonds de Solidarité contre les Événements Catastrophiques (Solidarity Fund Against Catastrophic Events, FSEC) program, solidarity mechanisms have been developed that provide support to poor and vulnerable populations after disasters, financed by taxes or fees on the products and services purchased by wealthier households and businesses.

Box 3.10. Adaptive Social Protection for Households in Malawi

Malawi is one of the world's poorest countries, with high risk of increasing poverty due to increases in food prices and other shocks. To protect the most vulnerable households from drought shocks, the World Bank worked with the government to determine the most cost-efficient way to fund the scalable mechanism of the Social Cash Transfer Program (SCTP). Based on this, the government adopted parametric insurance to provide emergency cash transfers in response to drought. The SCTP's scalable mechanism, initially designed to address drought, has been adapted in Malawi to handle multiple crises, including the COVID-19 pandemic, and, starting in July 2023, the aftermath of Cyclone Freddy. At that time, the government was able to extend the coverage of the mechanism to 600,000 people across six disaster vulnerable districts. Malawi's disaster risk finance efforts mark the first time an insurance product has directly backed a shock-responsive component for a social protection program in Africa.

This chapter's central message is that narrowing the natural disaster insurance protection gap in EMDEs is both a development imperative and a market-building challenge. Insurance can strengthen resilience, protect livelihoods, speed recovery, and support investment, but it cannot scale where risk is unmanaged, data are weak, products are poorly suited to needs, and affordability remains out of reach. Progress therefore depends on a structured approach: reducing underlying risk; building the data and regulatory foundations of insurability; mobilizing private insurance and reinsurance capacity through well-designed public-private partnerships; expanding distribution through innovation; and improving value, trust, and financial literacy on the demand side. Public support plays a role; however, it should be selective, transparent, and designed to crowd in rather than crowd out markets, because the poorest and most vulnerable populations often require complementary social protection mechanisms. There is no single model for all countries. However, with sustained reforms and targeted

partnerships, EMDEs can transition from today's high protection gaps to more inclusive and financially resilient systems that better protect households, farmers, businesses, and public finances from increasing natural disaster risks.

Notes: Chapter 1

1. A 2022 World Bank study found that only 11 percent of economies have dedicated MSME reorganization procedures in place, while 80 percent of countries in Latin America and the Caribbean, and Sub-Saharan Africa lack out-of-court workout guidelines or frameworks (World Bank 2022).
2. The 1,415 sample banks cover on average 72.7 percent of banking sector assets across 61 EMDEs. The average excludes China.
3. https://remittanceprices.worldbank.org/.
4. Fast payment systems provide immediate fund availability to beneficiaries on a 24 hours/7 days-a-week/365-days-a-year basis.
5. Financial health is also referred to as financial well-being.
6. The G20 Global Partnership for Financial Inclusion (GPFI) defines financial well-being as "a state in which individuals can smoothly manage financial needs and obligations, cope with negative shocks, pursue aspirations and opportunities, and feel satisfied and confident about their financial lives, considering country-specific circumstances" (G20 GPFI 2024).
7. In addition, the United Nations (UN) General Assembly's recently approved the revised Resolution on Financial Inclusion for Sustainable Development (A/RES/79/225), recognizing that financial inclusion should prioritize improving financial health outcomes, signaling its firm place on the global development agenda.
8. Annual bond issuances reached US$3.4 trillion in 2024, up from US$1.1 trillion one decade earlier.
9. World Bank staff calculations based on Bloomberg with a balanced sample across 44 EMDEs.
10. Corporate bond issuance for 2025 stood at US$350.8 billion, compared to US$167.2 billion in 2023 and US$284.8 billion in 2024.

Notes: Chapter 2

11. Direct evidence on the impact of MSME financing on wages is very limited. This effect can be inferred indirectly through productivity proxies such as profits, which tend to rise alongside pay.
12. There is no globally accepted definition of micro, small and medium enterprises (MSMEs), and the term "MSME" can refer to firms of vastly different nature and size. In general, countries use the number of employees, revenues, and assets—separately or concurrently—as definition criteria. Overall, most countries define microenterprises as firms with less than 10 employees, although some place the threshold at five employees; small enterprises are usually defined as firms with between 10 and 49 employees, and medium-size companies start at 50 employees. However, there is significant variation for the upper threshold, with the cutoff ranging from 40 employees (for example, in Zimbabwe) to 500 employees (for example, in the United States). Furthermore, some countries have differentiated thresholds depending on the economic sector (for example, manufacturing or services). However, more countries use the 250 employee's threshold, thus its use in this chapter. This chapter explicitly acknowledges when a materially different definition applies to specific research or analysis.
13. Refer to El Achkar (2023), with data from ILO Harmonized Microdata collection and ILO (2019).
14. Refer to Bertanzetti et al. (2024).
15. Refer, for example, to Haltiwanger et al. (2013), Lawless (2014), and Rijkers et al. (2014). However, Ayyagari et al. (2014) reach different conclusions for developing economies. They conclude that "conditional on size, young firms are the fastest growing and large, mature firms have the largest employment shares, but small young firms have higher job creation rates."
16. The analysis is based on firm-level data for 26 EMDEs in the manufacturing and the services sector. The analysis shows that after accounting for firm age and exit rates, employment growth in the manufacturing sector is driven by the larger firms, followed by the smallest firms in the sample. For the services sector, these two groups grow at similar rates. Refer to World Bank (2025b)
17. Refer to Ciani et al. (2020).
18. Refer to World Bank (forthcoming).
19. Ciani et al. (2020) estimate that of all firms that enter with fewer than 20 employees that survive for at least five years across their

sample countries, nearly 89 percent were still small at the end of five years. Only 10 percent of firms grew to become medium size, and 1 percent grew to become large.

20. Refer, for example, to Ayyagari et al. (2008, 2017) and references therein.
21. Refer to CGAP (2024).
22. A strand of the literature shows significant value added impact of equity financing on firm performance, including job creation, after controlling for the ability of equity investors to select firms with the highest growth potential. Refer, for example, to Bernstein et al. (2016); Chemmanur et al. (2011); Hellman and Puri (2002); and Lohwasser (2020). Another strand stresses the importance of investor activism for investee performance. Refer, for example, to Gompers at al. (2020).
23. This section draws on Carvajal and Didier (2024); Feyen et al. (2023); and G20 GPFI (2025)
24. MSME markets in the Asia Pacific region from HICs and MICs are the most vibrant: they account for about 90 percent of total market capitalization for MSME markets, have about 49 percent of the total number of listed companies, and concentrate new listings. Refer to Demir (2024).
25. Refer to Demir (2024).
26. This section draws on Carvajal and Didier (2024).
27. Refer to Quevedo-Vega et al. (2026).
28. This section draws from Carvajal and Didier (2024).
29. Refer to Kruijff and Sotiriou (2025) for an analysis of fintech funding challenges in Africa.

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30. Refer to the OECD 2025 data set, Balance Sheet and Income Statement of Insurance Companies
31. The INFORM Risk Index is a global, open-source risk assessment for humanitarian crises and disasters. It can support decisions about prevention, preparedness and response.
32. The supervisor survey was conducted in collaboration with the International Association of Insurance Supervisors (IAIS), with responses to a range of quantitative and qualitative questions received from 27 insurance supervisory authorities from a range of jurisdictions and income classifications. The market survey was conducted in collaboration with the Insurance Development Forum (IDF). It surveyed 13 members of the global insurance and reinsurance industry, including the largest risk carriers and brokers in terms of revenue.
33. This finding is based on a review of 21 diagnostics of low-income countries (LICs), including Financial Sector Assessment Programs (FSAPs), Country Climate and Development Reports (CCDRs), and feasibility studies across Africa, Central America, and the Pacific.
34. Examples include Open Access to Information on Sustainable Development (OASIS), Climada, the World Bank's NextGen Drought Index Dashboard, and the Global Facility for Disaster Reduction and Recovery.
35. Refer to "Insurance against Natural Hazards" on the website of FINMA (Swiss Financial Market Supervisory Authority). https://www.finma.ch/en/supervision/insurers/sector-specific-tools/natural-hazards/.
36. InsurTech is the use of technology within the insurance industry to improve processes and analyze data, such as AI-powered claims management, underwriting automation, and mobile insurance and risk management apps.
37. Fintech is the use of applications and tools to enhance and automate the delivery of financial products and services (such as mobile banking, digital payment systems, online lending platforms).
38. Of the 42 countries with World Bank-supported Social Protection Programs where the World Bank conducted a Social Protection Stress Test, 64 percent lack a solid risk financing strategy. Of these, most do not leverage market-based insurance.

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