



WORLD BANK GROUP

# CAPITAL MARKETS AND SMES IN EMERGING MARKETS AND DEVELOPING ECONOMIES: CAN THEY GO THE DISTANCE?

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# Acronyms and Abbreviations

<b>ABS</b>	asset-backed securities
<b>AE</b>	advanced economy
<b>AUM</b>	assets under management
<b>BCBS</b>	Basel Committee on Banking Supervision
<b>CCAF</b>	Cambridge Centre for Alternative Finance
<b>CVM</b>	Comissão de Valores Mobiliários
<b>DFI</b>	development finance institution
<b>EBA</b>	European Banking Authority
<b>ECP</b>	equity crowdfunding platform
<b>EMDE</b>	emerging market and developing economy
<b>EMPEA</b>	Emerging Markets Private Equity Association
<b>ESG</b>	environmental, social, and governance
<b>EU</b>	European Union
<b>fintech</b>	financial technology
<b>FSB</b>	Financial Stability Board
<b>GDP</b>	gross domestic product
<b>GIIN</b>	Global Impact Investor Network
<b>GP</b>	general partner
<b>IOSCO</b>	International Organization of Securities Commissions
<b>LP</b>	limited partner
<b>MDB</b>	multilateral development bank
<b>MSME</b>	micro, small, and medium enterprise
<b>NAFIN</b>	Nacional Financiera (Mexico)
<b>NBFC</b>	nonbank financial company
<b>NBFI</b>	nonbank financial institution
<b>OCW</b>	out-of-court workout
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>P2P</b>	peer-to-peer
<b>PE</b>	private equity
<b>PE/VC</b>	private equity/venture capital

<b>RBI</b>	Reserve Bank of India
<b>RXIL</b>	Receivables Exchange of India
<b>SBA</b>	U.S. Small Business Administration
<b>SME</b>	small and medium enterprise
<b>SPV</b>	special purpose vehicle
<b>TA</b>	technical assistance
<b>UCO</b>	universal credit organization
<b>USAID</b>	U.S. Agency for International Development
<b>VC</b>	venture capital

All dollar amounts are U.S. dollars unless otherwise indicated.

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# Executive Summary

**Small and medium enterprises (SMEs) face significant financing gaps that stifle innovation and economic growth.** The credit gap alone is estimated at \$4.5 trillion as of 2017 for emerging markets and developing economies (EMDEs) only. This represents the unmet financing needs of 21 million SMEs. The inability of these enterprises to sufficiently fund growth threatens larger growth trends in EMDEs as formal SMEs constitute 45 percent of employment and 33 percent of gross domestic product (GDP) in EMDEs.

**Bank financing has been the traditional source of external financing to SMEs; however, since the global financial crisis that started in 2007, there has been an active debate about the role that capital markets can play in SME financing.** In advanced economies (AEs), several factors have triggered the emergence of new capital markets solutions, including bank deleveraging in some countries; the low interest rate environment that has affected institutional investors' portfolios and the investors' increased interest in environmental, social, and governance (ESG) factors to guide their investment decisions; and financial technology. Some of these factors are not applicable to EMDEs. However, the mere size of the gap does call for an expansion of SME financing channels. The growth of pension funds in need of diversification, internet penetration, and the increased participation of retail investors in EMDEs' capital markets via mutual funds all provide a positive outlook for the development of new financing solutions for SMEs.

**This report seeks to enhance practitioners' understanding of the potential role that capital**

**markets can have in SME financing in EMDEs.**

To do so, the report reviews global experiences in the use of capital markets solutions and, more generally, in market-based solutions to expand SME financing with a view to identifying key preconditions and challenges for EMDEs implementing the solutions. The term market-based solutions is used intentionally, because many of the solutions that will be analyzed do not fit neatly into a traditional definition of capital markets but do share the characteristic of being nonbank financing alternatives that leverage financing from capital market investors.

**The report looks at both indirect and direct mechanisms for SME financing.**

Indirect mechanisms refer to capital markets solutions that are used by SME lenders to improve their funding structure and to compete more effectively in the credit market, developments that in turn can result in an expansion of SME financing, improvements in the lending conditions that are offered to them, or both. The instruments analyzed include plain vanilla issuances by SME lenders, SME loan securitization, and SME structured notes. Direct solutions refer to mechanisms whereby SMEs obtain financing directly from capital market investors. The report looks at both debt and equity solutions. On the debt side three sets of solutions are analyzed: solutions that leverage receivables (platforms and funds), solutions that leverage loans (platforms and funds), and solutions that leverage securities offerings (small bond offerings along with SME bond platforms and funds). On the equity side the report analyzes venture capital and private equity funds, equity crowdfunding, and small equity offerings along with SME equity exchanges.

**The experiences analyzed in this report support the thesis that capital markets have the potential to play a larger role in SME financing, albeit complementary to banking.** Data gaps and the novelty of many of these solutions prevent definitive conclusions from being made. That said, the World Bank Group’s experience in the field and the data available suggest that such potential is larger in the facilitation of credit and working capital to SMEs. For example, concerning electronic platforms, of the \$418 billion that had been raised as of 2017, 83 percent corresponded to lending platforms. The expansion of the avenues for equity financing is likely to have a more limited impact. The experiences analyzed also suggest that to achieve such potential, other solutions beyond traditional public offerings of securities need to be included in the toolkit for SME financing, because only the larger SMEs are able to comply with the requirements that those offerings entail. Thus, solutions should also include both indirect mechanisms for SME financing, such as issuances by SME lenders, and direct nontraditional mechanisms, such as the platform and fund-based solutions mentioned earlier. Table ES.1 provides a summary of the key characteristics and conditions necessary for each instrument to develop.

**However, the majority of the solutions described in this report are at an early stage in most EMDEs, a condition which is largely a reflection of the level of development of their capital markets.** This is the case for indirect solutions, because they rely on the existence of corporate bond markets. It seems also to be the case for direct solutions that rely on funds because some development of the mutual fund industry is needed to anchor such SME solutions. The same applies to securities offerings solutions—particularly those that rely on the existence of secondary markets to anchor them. Finally, as experience in AEs shows, to truly thrive, venture capital requires robust capital markets that can provide an exit mechanism for such investments.

**While some of the financial technology solutions do not seem to require a similar level**

**of development of the capital markets, they all require that some of the basic preconditions for capital markets development are in place.** Research conducted by the World Bank suggests that the development of alternative platforms is not dependent on the wealth of countries, which can be considered a positive finding regarding EMDEs. It also suggests that the development of lending and receivable platforms is independent from the level of development of the capital markets, or at least that no correlation was found. But the empirical research did find a correlation between equity crowdfunding platforms and stock market capitalization. Further, it also found a strong correlation of all the platforms with the level of credit intermediation and the level of respect for the rule of law. Finally, experience indicates that a sizable investor base is needed for these solutions to have an impact.

**It is important to acknowledge that the health of the SME sector, and more generally of the more traditional SME finance market altogether, can affect the viability of the solutions described in this report.** Indeed, at the basis of all these solutions must lie a healthy SME sector, which in turn is affected by many conditions, including the macroeconomic environment and the ease of doing business. Furthermore, as the experience of AEs during the global financial crisis indicates, the situation of banks can affect—either positively or negatively—the development of some of the solutions analyzed.

**Beyond these conditions, there are specific challenges that affect the development of the capital markets solutions analyzed in this report.** These challenges relate to the supply, the demand, and the market infrastructure.

**To start, many challenges relate to the availability of the underlying assets themselves.** At the operational level, each solution requires the existence of a particular type of asset. For example, solutions that rely on loans require that a pipeline of quality loans to SMEs exists, which is not always the case. However, the experience of lending platforms does show that in some cases the key

challenge is not the creditworthiness of the SMEs, but rather the lack of information to assess it. That problem is being dealt with by platforms via scoring systems that use nontraditional information—in this case, big data. The challenge of finding a pipeline of quality SMEs to invest in is more acute for solutions that are based on securities offerings (equity and bonds), not just because in many cases SMEs do not know the options available to them but also because some of those options require that the SMEs undertake organizational improvements, including in their corporate governance.

**There are challenges also on the demand side, regarding whether investors are willing and able to invest in these solutions.** Many of the solutions analyzed in this report have a higher risk profile than traditional equity or bond offerings placed on the main markets. Thus, they might not be suited for retail investors. In addition, they might not fit neatly into the portfolio of institutional investors. As will be further explained, changes to the investment regulations of these investors might be needed, as well as capacity building. The way the solutions are structured will be key, including the potential need for de-risking and other types of interventions to align them with the risk-return appetite of investors. In some countries such interventions have included (a) credit guarantees for some of the debt instruments, (b) co-investments for venture capital as well as for newer solutions, such as lending platforms and loan originating funds, and (c) tax incentives, mainly in relation to early equity investment. Because these interventions have a fiscal impact, before any interventions are implemented government authorities must determine that the specific intervention to be used is the best tool to address the market failure identified. In addition, the interventions should be set in a way that allows for the assessment of their impact. Because of their fiscal situation, many EMDEs might have limited space to implement these types of interventions, even if needed. In that context, multilateral development banks (MDBs), which can provide guarantees or co-investing in transactions that could have a catalytic effect, become even more critical.

**Other challenges refer to the lack of important components of market infrastructure.** As explained in this report, many of the solutions require the existence of a wide range of securities market participants (brokers, auditors, credit rating agencies) that are not always present, or whose capacity is still limited. Although traditional intermediaries are not needed in the case of platform solutions, the platform operators would need to comply with certain minimum requirements. In addition, some countries still face challenges in providing the basic enabling environment, including the tax system, collateral registries, the insolvency regime, or even the judiciary.

**Finally, it is critical that EMDEs work to ensure that appropriate regulation and supervision are in place.** As previously indicated, many of the solutions analyzed have characteristics that make them “riskier” than traditional equity or bond offerings. Thus, at a basic level it is necessary that investors understand such characteristics and are in a position to evaluate them. The starting point is having regulations for the products that strike the right balance between the need to protect investors and ensure financial stability and the goal of expanding mechanisms for SME financing. Robust conduct obligations also must be in place for the intermediaries involved in the distribution of the instruments designed. Moreover, the regulations for institutional investors need to allow them certain flexibility while also requiring managers to improve their risk management capabilities. Unfortunately, some of these regulations are still missing or are deficient in many EMDEs. In addition, robust supervisory programs need to be in place to ensure that the supervisory authorities are in a position to understand how the solutions are evolving and whether they pose material risks to investor protection and financial stability, so that the authorities can take measures to address buildups of vulnerabilities in a timely manner. In some EMDEs deficiencies in the regulatory framework prevent supervisors from having key information to make this assessment and, in many, supervisory capacity is still a challenge.

**Because the stated challenges are many, it is key that authorities in EMDEs take an active role in developing comprehensive strategies to mobilize capital markets solutions for SME financing and in setting clear priorities for action.**

These strategies should be well articulated into comprehensive strategies for SME access to finance on one hand and capital markets development strategies on the other. For the former, many of the solutions analyzed in this report leverage traditional funding sources and require that the enabling environment for credit intermediation be in place. Therefore, it is critical that the strategies are well articulated into SME finance strategies but also more generally into comprehensive SME development strategies that rely on a clear understanding of the interplay between addressing financing limitations and other obstacles to firms' performance. For the latter, many of the solutions require that a capital market with a certain level of development is already in place; thus authorities need to be careful in assessing which solutions could work in their jurisdictions. It is likely that in less developed EMDEs, only solutions that require very basic preconditions such as lending and receivable platforms might be feasible initially. Accordingly, governments would need to continue working to improve the preconditions necessary for capital markets to develop, from the macroeconomic environment and the financial sector to the rule of law, to be able to use the capital markets solutions described in this report more broadly.

**Mechanisms should be established to engage relevant stakeholders in the definition of such strategies and priorities for action.** In this context, it is recommended that the authorities

- Appoint a responsible champion that can lead and shepherd the process forward;
- Establish committees or consultation groups to support the development and implementation of the strategy, in a manner that allows broad engagement with private sector stakeholders given that, in the end, these plans should foster mobilization of private sector funding to SMEs; and

- Make the strategies and action plans publicly available and require periodic reporting on the progress made.

**The development of sound strategies depends on the existence of robust information** on the number of SMEs, their characteristics, and the channels they have to access finance—data that are not easily available in many EMDEs. Thus, a complementary exercise for many EMDEs is to identify a set of key data that should be compiled and kept up to date.

**Development institutions should continue to support the governments of EMDEs as they seek to mobilize private sector funding to SME financing via capital markets solutions.** This support can encompass assistance in preparing and implementing the strategies mentioned here, along with capacity building. This support should be anchored by a comprehensive analysis of the SME financing gap in the country, with a view to ensuring that market-based solutions enhance competition and complement bank funding, as appropriate. To the extent possible, policy advice should be complemented with transactions support, so that one reinforces the other. Furthermore, transactions should be structured in a way that brings additional private sector funding to SME financing. MDBs should periodically assess the impact and replicability of different transactions solutions being tested and share information accordingly. Likewise, MDBs could assist EMDEs in periodically evaluating the impact that government interventions are having in expanding SME financing via market-based solutions.

**More time and analysis are needed to assess the role that these new solutions can have in financial inclusion.** Overall, on the capital markets side, the research available has focused on electronic platforms given the hypothesis that due to the characteristics of such platforms they might play a more significant role in financial inclusion. At the global level, the research conducted by the World Bank did not find that those platforms are developing in the countries where they are needed most, in terms of the size of their credit

and equity gaps. Nevertheless, it is still too early to assess whether this trend will remain. Third-party research conducted in specific countries, at the level of individual platforms, has concluded that some percentage of the platforms' clients are unbanked clients. However, those findings cannot be extrapolated. Further, data from the Cambridge Centre for Alternative Finance suggest that the patterns on the use of the platforms by banked, underbanked, and unbanked clients differ significantly from country to country.

**The World Bank Group plans to continue enhancing its capacity to assist countries in mobilizing capital markets solutions for SME financing** (table ES.1). In this context, the World Bank plans to (a) develop a policy note on the topic, (b) produce a toolkit that practitioners can use as a starting point to assess the potential of different capital markets solutions to be implemented in a particular jurisdiction, and (c) delve deeper into the financial aspects of these solutions compared with banking solutions.

**Table ES.1: Capital markets solutions for small and medium enterprise financing: Summary of key characteristics**

Indirect Mechanisms for SME Financing			
Topic	Plain vanilla issuances by SME lenders	SME loan securitization	SME structured notes
<b>SMEs that benefit</b>	All types of SMEs and potentially also microenterprises	All types of SMEs and potentially also microenterprises	All types of SMEs and potentially also microenterprises
<b>Level of market development needed</b>	Some basic level of development of the corporate bond market	Higher level of development of the corporate bond market	Higher level of development of the corporate bond market
<b>Issuer</b>	Specialized lenders and other nonbank financial institutions (NBFIS)  Initially likely only for larger NBFIS  Smaller NBFIS might require credit enhancements for first-time bond issuances	Banks, specialized lenders and other nonbank financial institutions	Banks, specialized lenders and other non bank financial institutions
<b>Investors</b>	All types of domestic investors	Potentially all types of domestic investors, but in practice mainly for institutional	Potentially all types of domestic investors, but in practice mainly for institutional
<b>Capital markets regulations needed</b>	No specialized regulations needed; securities will be issued on basis of the general regime for equity and corporate bonds	Specific regulations for securitization (post-crisis emphasis on standardization, disclosure, and retention requirements)	Specific regulation for SME structured notes with provisions on the quality of the loans and potentially a differentiated risk weight treatment for these notes compared with unsecured notes
<b>Changes to investment regulations of institutional investors</b>	No changes will likely be needed (if placed under public offering)	No changes will likely be needed (if placed under public offering)	No changes will likely be needed (if placed under public offering)
<b>Key market infrastructure</b>	Securities intermediaries to structure the issuances  A bond platform  Credit rating agencies	Securities intermediaries to structure the issuances  A bond platform  Credit rating agencies	Securities intermediaries to structure the issuances  A bond platform  Credit rating agencies
<b>Additional government interventions needed</b>	Credit guarantees potentially needed for first-time bond issuances	Credit guarantees likely needed	
<b>Key enabling environment</b>	Insolvency regime	Existence of SPV that is bankruptcy remote	Insolvency regime

Direct Mechanisms for SME Financing via Debt			
Topic	Receivable-based solutions	Loan-based solutions	Securities offering solutions
<b>SMEs that benefit</b>	All types of SMEs, but particularly useful for smaller SMEs and microenterprises	All types of SMEs	Larger SMEs for private offerings Potentially smaller SMEs for minibonds
<b>Level of capital market development needed</b>	For platforms: no need for developed capital markets, but certain basic preconditions needed For funds: some level of development of the mutual fund industry	For platforms: no need for developed capital markets, but certain basic preconditions needed For funds: some level of development of the mutual fund industry	Some level of development of the corporate bond markets
<b>Issuer</b>	For platforms: technically, there is no issuer; the receivables are posted by SMEs For funds: the fund issues participations	For platforms: technically, there is no issuer; the SMEs ask for loans For funds: the fund issues participations	SMEs themselves are the issuers of securities
<b>Investors</b>	Potentially all types of domestic investors	Lending platforms cater to all types of domestic investors Loan funds are more suitable for sophisticated investors	Private offerings by SMEs are targeted mainly to sophisticated investors. Minibonds could potentially target both sophisticated and retail investors, but for the latter disclosure requirements might need to be more stringent
<b>Capital markets regulations needed</b>	In general, platform solutions might not require capital markets regulations Fund solutions require a specialized framework for receivable funds	Both platform and fund solutions require a specialized framework	Require a regime for private offerings, and potentially a specialized regime for minibonds
<b>Changes to investment regulations of institutional investors</b>	Changes are likely needed to expand the alternative assets category	Changes are likely needed to expand the alternative assets category	Changes might be needed to expand the investors' ability to invest a percentage of their portfolio in securities of private offering
<b>Key market infrastructure</b>	For platform solutions: intermediaries that act as platform providers with proprietary systems to assess the credit risk of receivables For funds solutions, specialized fund managers might enter into contracts with third parties that perform the "factoring" functions (finding the receivables and assessing the creditworthiness of the debtors)	For platform solutions: intermediaries that act as platform providers with proprietary systems to assess the credit risk of the loans For fund solutions: specialized fund managers might enter into contracts with third parties that operate as "credit officers" (finding the SMEs and assessing their creditworthiness)	Securities intermediaries to structure the offerings SME bond platforms to provide liquidity – the listing requirements should be proportionate and would differ depending on whether the bonds can only be traded among institutional investors Credit rating agencies
<b>Additional government interventions</b>	Potentially co-investments	Potentially co-investments	Potentially co-investments

<b>Key enabling environment</b>	Efficient rules for the transfer of receivables Ideally, implementation of electronic receipts Tax-transparent SPV for fund-based solutions Credit information registries Insolvency regime	Tax-transparent SPV for fund-based solutions Credit information registries Insolvency regime	Credit information registries Insolvency regime
Direct Mechanisms for SME Financing via Equity			
Topic	Private equity/Venture capital	Equity crowdfunding	SME offerings
<b>SMEs that benefit</b>	Start-ups/early stage companies	In practice, start-up companies	Larger, more established SMEs
<b>Level of capital markets development needed</b>	Need for equity markets as an exit mechanism	Seem to develop where equity markets already exist	Need for equity markets
<b>Issuer</b>	Start-ups/early stage companies	Start-up companies	SMEs
<b>Investors</b>	Domestic sophisticated investors In some cases, also foreign investors (but mainly in off-shore vehicles)	Retail investors along with other investors	Potentially all types of domestic investors but, in practice, mainly high-net-worth individuals
<b>Capital markets regulations needed</b>	General securities markets regulations that provide a space for funds to be placed under a private offering regime	Likely that a bespoke regime for equity crowdfunding will be needed	Proportionate regulations for SME equity offerings; the specific requirements would vary depending on whether the offerings can be sold to all investors or only to sophisticated investors
<b>Changes to investment regulations of institutional investors</b>	Changes likely needed to allow investment in alternative assets and/or securities of private offering	Changes not needed. But, in general, not a product for institutional investors	Changes not needed. But, in general, not a product for institutional investors, unless pooled
<b>Key market infrastructure</b>	Specialized fund managers	Intermediaries that act as platform providers that are able to conduct a due diligence on the companies seeking funding	Likely to require specialized intermediaries that act as sponsors SME equity exchange to provide liquidity, but that likely will not be enough, and additional measures should be considered (for example, market makers)
<b>Additional government interventions needed</b>	Tax incentives likely needed Consider co-investments	Consider tax incentives	Consider tax incentives
<b>Key enabling environment</b>	Tax transparent SPV for the funds Insolvency regime	Insolvency regime	Insolvency regime

Note: The term *sophisticated investors* includes both institutional investors and high-net-worth individuals. NBFI = nonbank financial institution; PE = private equity; SME = small and medium enterprise; SPV = special purpose vehicle; VC = venture capital.



## Introduction

**This report seeks to enhance practitioners' understanding of the potential role that capital markets can have in financing of small and medium enterprises (SMEs) in emerging markets and developing economies (EMDEs).**

To do so, the report reviews global experiences with the use of capital markets solutions, and more generally of market-based solutions to expand SME financing with a view to identifying key preconditions and challenges<sup>1</sup> for their implementation by EMDEs.<sup>2</sup> The term market-based solutions is used intentionally, because many of the solutions that will be analyzed do not fit neatly into a traditional definition of capital markets but do share the characteristic of being nonbank financing alternatives that leverage financing from capital markets investors.

### The need for additional solutions for SME financing

**SMEs in EMDEs face significant financing gaps that could stifle innovation and economic growth.** The credit gap alone has been estimated at \$4.5 trillion as of 2017 for EMDEs. This represents the unmet credit need of 21 million SMEs. The inability of those enterprises to fund sufficient growth threatens larger growth trends in EMDEs because formal SMEs constitute 45 percent of employment and 33 percent of the GDP of those economies.

**Bank financing has been the traditional source of external financing for SMEs; however, since the global financial crisis that started in 2007 there has been an active debate about the role**

**that capital markets can play in SME financing.**

In advanced economies (AEs), new solutions for SME financing have been triggered by several factors, including bank deleveraging in some countries, the low interest rate environment that has affected institutional investors' portfolios, the institutional investors' increased interest in environmental, social, and governance (ESG) factors to guide their investment decisions, and financial technology (fintech). Some of these factors are not applicable to EMDEs. However, the size of the SME financing gap calls for additional solutions to expand SME financing, especially now when many EMDEs are seeing their pension funds grow, financial technology is opening the doors to new mechanisms for market-based financing, and a growing middle class is increasingly investing in capital markets through mutual funds.

### The instruments analyzed

**This report focuses on a set of key capital markets instruments and market-based solutions that could facilitate mobilization of investors to SME financing in EMDEs.**<sup>3</sup> This report leverages previous research conducted by the International Financial Institutions and expands it by looking at both debt and equity solutions including those that have been brought by financial technology.<sup>4</sup> The working hypothesis has been that the role of capital markets in SME financing is very limited if only the traditional public markets are considered. However, if indirect and nontraditional solutions are considered, then capital markets can have a more expanded role in SME financing, albeit complementary to that of banking.

**In this context, the report looks at both indirect and direct market-based mechanisms for SME financing.**<sup>5</sup> Indirect mechanisms refer to capital markets solutions that are used by SME lenders to improve their funding structure so the lenders can compete more effectively in the credit markets, which in turn could result in an expansion of SME financing, the provision of credit to SMEs on better economic terms, or both. Direct solutions refer to mechanisms whereby SMEs obtain financing directly from capital market investors. Nontraditional solutions refer to any mechanism different from direct public offerings by SMEs.

**The selection of the specific solutions analyzed in the report has been made based on the World Bank Group’s judgment** about the potential importance of different solutions that are being used or explored at a global level,<sup>6</sup> and their replicability in a wide range of EMDEs, along with practical considerations related to data availability—or the lack thereof—particularly in EMDEs.<sup>7</sup>

**Regarding indirect mechanisms, the report explores**

- Plain vanilla issuances by specialized SME lenders,
- SME loan securitization, and
- SME structured notes.

**Regarding direct mechanisms, the report explores the following solutions:**

- On the debt side, the report analyzes
- Receivable-based solutions (platforms and funds),
- Loan-based solutions (platforms and funds), and
- Small securities offerings solutions (minibonds along with SME bond platforms and SME bond funds).
- On the equity side, the report looks into

- Venture capital and private equity funds,
- Equity crowdfunding, and
- Small securities offerings along with SME equity exchanges.

**Certain exclusions must be explicitly acknowledged.** The report does not cover angel investors, leasing funds, and mezzanine financing. In all three cases, the recommendations given in the context of other solutions—venture capital, receivables and loan funds, and private offerings, respectively—can guide authorities as to potential actions to ignite those other solutions. It must be acknowledged, however, that each of the solutions excluded meets a specific need that might not be fully addressed by the solutions covered in the report.<sup>8</sup> Recent reports discuss the potential role of initial coin offerings in allowing retail investors to participate in the financing of small businesses and start-ups. However, in its current form, initial coin offerings carry significant risks to investors that have triggered warnings from securities regulators around the globe. That is why they have not been covered in this report. That said, such assessment might change over time if the challenges identified by regulators were successfully mitigated.<sup>9</sup>

**SMEs constitute a very heterogeneous universe, thus not all instruments discussed in the report would be useful for all.** In the analysis, the report seeks to identify at a general level the type of SMEs that could potentially benefit from each type of instrument. This effort could be the starting point for a sectoral analysis.

## The structure of this report

**This report is structured as follows:**

- This section explains the objective of the report and the scope of the work undertaken.
- Section 2 provides an overview of the reasons driving the quest for capital markets solutions to expand SME financing.

- Sections 3 and 4 analyze key capital markets solutions that might help mobilize investors in EMDEs to provide SME financing, and the current use of such solutions in AEs and EMDEs.
- Section 5 explains the preconditions and challenges affecting the development of capital markets solutions in EMDEs.
- Section 6 analyzes mechanisms used to align market participants with the goal of expanding the role of capital markets solutions in SME financing, beyond having in place a robust enabling environment.
- Section 7 provides summary conclusions.
- Annex A provides an estimate of the SME equity gap.
- Annex B provides additional information on the importance of alternative platforms in AEs versus EMDEs, and on a regional basis.
- Annex C provides the results of empirical research conducted by the World Bank to assess the extent to which the same preconditions that apply to capital markets development apply to electronic platforms, as well as whether these platforms are developing in the countries that exhibit the most financial constraints.



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# Capital Markets in Emerging Markets and Developing Economies and Their Potential Role in Reducing the SME Financing Gap

## The SME finance gap

**SMEs are the backbone of EMDEs.** There is no universal definition of SMEs. In general, many countries use the number of employees, assets, and revenues, either separately or concurrently, as key defining criteria. The specific threshold to define a SME varies in each country, as per the size of the economy. For purposes of this report, *microenterprises* are defined as businesses with fewer than 10 employees and SMEs as those with fewer than 250 employees.<sup>10</sup> According to this definition, there are about 141 million micro, small, and medium enterprises (MSMEs) in EMDEs, of which 121 are microenterprises and the remaining are SMEs. SMEs alone constitute about 45 percent

of employment and 33 percent of gross domestic product (GDP) in EMDEs.

**Yet, the survival and growth of MSMEs are threatened by many factors, including access to financing.** Although many constraints relate to their ability to tap into critical infrastructure, such as electricity, SMEs also consider access to finance among their key constraints. As of 2018, the MSME credit gap in emdes was estimated at \$5.2 Trillion, of which the SME gap amounted to \$4.5 Trillion (see box 2.1). This does not take into consideration the equity gap, which is much more difficult to estimate and which affects SMEs altogether but especially innovative firms. A very preliminary estimate of this gap can be found in annex A.

### Box 2.1: The SME credit financing gap

There are close to 162 million formal micro, small and medium enterprises (MSMEs) in developing countries, of which 141 million are microenterprises and 21 million are SMEs. Three countries—Brazil, China, and Nigeria—contribute 67 percent of the total number of MSMEs, which is equivalent to 109 million enterprises. Close to 12 million SMEs are in China alone and represent 56 percent of all SMEs in developing countries. China also has 44 million microenterprises, which represent 31 percent of all microenterprises in developing countries.

Of \$8.9 trillion in potential demand for MSME finance, only \$3.7 trillion is currently being supplied. Thus the unmet demand for financing in the MSME segment in developing countries is valued at \$5.2 trillion, of which the microenterprise finance gap is estimated at \$718.8 billion and the SME finance gap at \$4.5 trillion. Altogether this gap represents 19 percent of developing countries' cumulative gross domestic product. In lower-middle-income and high-income countries, this indicator is 20–21 percent. In upper-middle-income countries it is 18 percent, and in low-income countries it is 15 percent.

The total MSME finance gap volume is dispersed widely among regions. The highest proportion of the finance gap compared with potential demand can be found in two regions: Latin America and the Caribbean and the Middle East and North Africa—with 87 percent and 88 percent, respectively. The smallest proportion can be found in East Asia and Pacific, with 46 percent.

Comparing the level of development of the countries, the finance gap as a proportion of potential demand is the highest in the low-income and lower-middle-income countries, with 80 percent in comparison with a total of 59 percent for all developing countries included in this study. The microenterprise finance gap as a proportion of the microenterprise potential demand is the highest in the lower-middle-income countries (94 percent), and lowest in the high-income countries (63 percent). The SME finance gap as a proportion of potential SME demand is highest in low-income countries (78 percent), as compared with 56 percent in all developing countries. The higher the proportion, the smaller the current lending volume.

Source: IFC 2017.

## The potential of capital markets solutions to supplement traditional funding sources

**SMEs require different types of funding at different stages of their life cycle.** Some of this funding can come from internal sources—in particular, founders’ capital and retained dividends; however as SMEs grow, they need access to additional financing.

**Banks have been the main providers of external credit to SMEs, complemented in some countries by other specialized lenders.** It is estimated that financing from banks accounts for 50 to 70 percent of the external financing used to fund SMEs’ investments in growth (Stein, Goland, and Schiff 2010). This prevalence has stemmed mainly from the characteristics of SMEs—small in size, informal in nature, and with limited information—which have made them better suited to bank lending because the banks establish relationships that enable them to gather soft information about the SME business that is not visible to outside investors. Thus the banks are in a better position to assess the credit risk of such businesses.<sup>11</sup> In addition, in many countries, including EMDEs, other specialized lenders such as microfinance institutions and cooperatives are also serving the micro and SME sectors. Finally, asset-based financing has been an important source of working capital to SMEs because it can more easily mitigate the information problems of SMEs, given the existence of assets that serve as collateral.

**The contribution of capital markets to SME financing has been very limited.** Overall the characteristics of SMEs make them unsuitable for the public markets, as they are not in a position to provide the financial disclosure required by these markets, either because they cannot produce it or because the costs would be prohibitive compared to their financing needs. Further, on the equity side, the public markets impose corporate governance requirements that do not fit well with the family-owned nature of SMEs. Thus, very few countries have been able to successfully provide SMEs direct access to the public markets. In this scenario, the contribution of capital markets to SME financing

has been limited and has taken place mostly via the private markets. First, the markets have provided risk capital for innovative companies, mainly via venture capital (VC) funds—although the role of angel investors should be acknowledged. Pension funds, insurance companies, foundations, endowments, high-net-worth individuals, sovereign wealth funds, and development finance institutions (DFIs) have been typical investors in these funds. Second, they have provided medium-term financing to medium-size companies, mainly in the form of private placements of bonds. In this case the main investors have been institutional investors.

**However, particularly since the global financial crisis there has been a push in AEs to expand mechanisms for SME financing, including via capital markets, and for institutional investors to play a larger role in SME financing.** This push has been triggered by several factors, including bank deleveraging; a hunt for yield by institutional investors, which has been driven by the low interest rate environment; investors’ increased interest in recognizing ESG criteria in their investment decisions; and financial technology. Each of these trends has had implications for the emergence of capital markets solutions for SME financing. It is important to mention that there has been concern about the impact that Basel III requirements could have on banks’ lending to SMEs.<sup>12</sup> Nevertheless, based on a global survey, a recent Financial Stability Board (FSB) report released for consultation in June 2019 “did not identify material and persistent negative effects on SME financing in general, although there is some differentiation across jurisdictions.”<sup>13</sup>

**Bank deleveraging, which was more pronounced in Europe than elsewhere, has led to policies that foster alternative mechanisms for SME financing** and has led pension funds and insurance companies to take up these instruments in their portfolios. For example, in Italy reforms approved in 2012 allowed nonlisted SMEs to issue minibonds, and banks, pension funds, and insurance companies to invest in these instruments (see box 4.5). Many other countries in Europe have fostered the issuance of minibonds by SMEs, and SME bond platforms

have been developed in countries such as Germany, Spain, and the United Kingdom. In addition, other alternative mechanisms to provide credit to SMEs, such as loan funds, have been developed. In some cases, their development required changes to laws and regulations not just to enable the issuance of the instruments themselves, but also to enable pension funds and insurance companies to invest in them. That occurred in France, where legal reforms were needed to allow the creation of loan originating funds as well as to allow insurance companies to invest in them (see box 4.4).

**The low interest rate environment of recent years has resulted in much lower returns for the large fixed-income holdings of institutional investors; as a result, their search for alternative investments, including SME solutions, has grown.** Pension funds and insurance companies hold roughly \$54 trillion in assets in Organisation for Economic Co-operation and Development (OECD) countries.<sup>14</sup> Overall, a large majority of their investments are in fixed-income<sup>15</sup> or public equity instruments, although investments in alternative assets have grown over time (OECD 2018a). Historically, their investment in SME financing has been limited and mostly focused on private equity/venture capital (PE/VC), as part of the alternative assets category. This lack of meaningful involvement in the

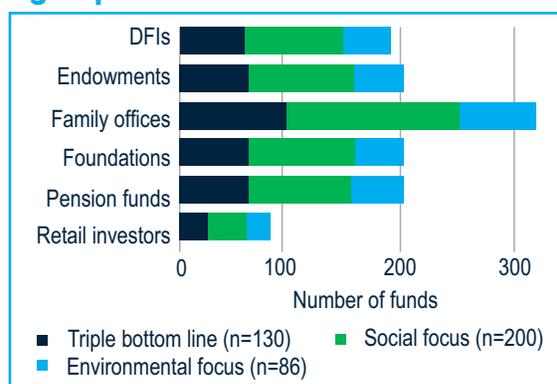
SME financing market has been driven by a complex set of factors, including the small size of some of the investments, the lack of transparency and liquidity of many of the investment vehicles, and, in some cases, regulatory restrictions. However, the low interest rate environment triggered by the monetary policies of central banks has driven a search for alternatives to replace some portion of the fixed income part of the portfolio. Two examples of products that have helped to deliver more yield for institutional investors are minibonds and SME loan funds. It is important to note, however, that the increased holding by institutional investors of these type of assets (which are more illiquid and, in some cases, contain leverage) might be contributing to a buildup of vulnerabilities that needs to be addressed.<sup>16</sup>

**The increased interest of institutional investors in ESG investment might also have a positive effect on SME financing.** Both pension and insurance companies are being affected by the growing movement toward stronger consideration of ESG factors in the investment decision-making process. This trend has particular importance for SME growth in that some of the funds launched to address the social aspect of this area are “impact” funds that, in some cases, have a specific mandate to further the growth of small and medium enterprises (box 2.2).

## Box 2.2: What is impact investing and what significance might it have for SMEs?

The “S” in ESG stands for social, and a key strand of social investment is known as impact investment. Impact investments are made in companies, organizations, and funds with the intention to generate social and environmental impact alongside a financial return (GIIN 2018). SME-dedicated impact investment funds are one of the prevalent versions of impact investments. Inclusion in this trend carries no special requirements for the “investee” SME firms, in most cases. The SMEs are not required to adhere to ESG principles themselves but rather are targeted for their size, geographical location, and perhaps their specific industry. Figure B2.2.1 shows the target investor types by each high-level impact theme. (SME investment fits largely within “social focus.”)

**Figure B2.2.1: Target investor types by impact theme**



Source: OECD 2018c.

Note: SME = small and medium enterprise; VC = venture capital.

Impact investing is still a small portion but has the potential to become a more significant element of SME access to finance in the mid to longer term, in AEs. The 2018 Investor Survey of the Global Impact Investor Network (GIIN) indicated that \$228 billion in aggregate impact assets were under management among over 200 survey respondents (GIIN 2018). This amount was up from \$114 billion in 2017. As illustrated in table 2.1, taken from the OECD Large Pension Fund Survey (2016 data, published in 2018), there are already a number of pension funds that are starting to make real investments in this area of social investment. The data include some other elements, but SME finance is a key component included in this category.

**Finally, financial technology has triggered the emergence of new capital markets solutions** that allow start-ups and SMEs in need of funding

to connect more directly with investors. Financing raised through electronic platforms has been growing at a fast pace over the past few years. Data compiled by the Cambridge Center for Alternative Finance (CCAF) show that global volumes multiplied by 43 times from 2013 to 2017, from \$10 billion to \$418 billion (figure 2.1). Although impressive, this rate of growth is related to the nascent state of these markets, still representing a median 0.015 percent of GDP around the world in 2017, with China (3.000 percent of GDP) and Georgia (1.300 percent of GDP) as the only outliers. In absolute terms, the bulk of the financing is concentrated in China, the United States, and the United Kingdom. In terms of instruments, lending platforms largely prevail over the rest, accounting for almost 83 percent of total flows, in turn divided between 58 percent for consumers and 25 percent for businesses.

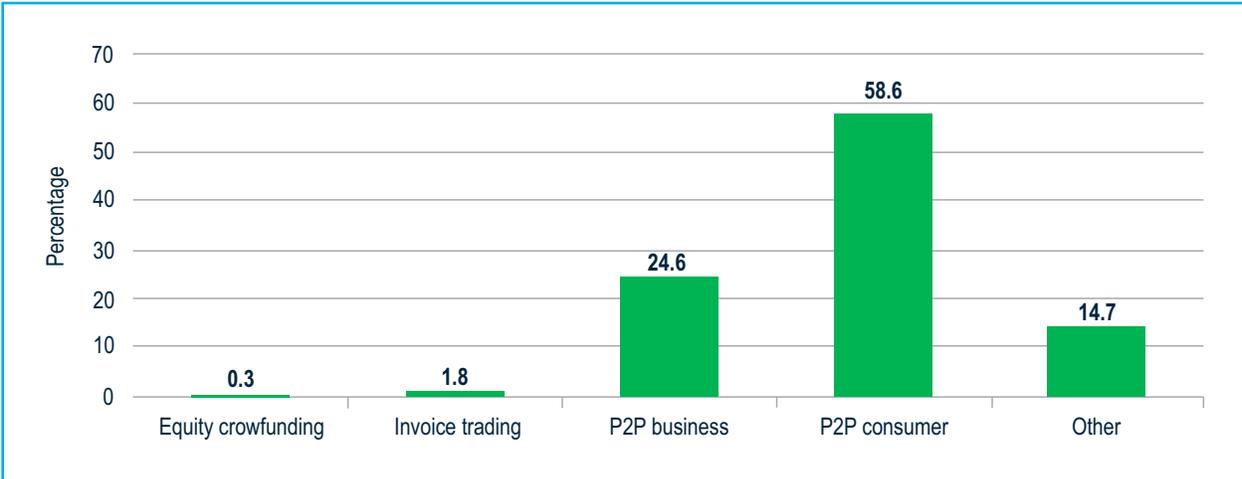
**Table 2.1. Investments of Selective Large Pension Funds and Public Pension Reserve Funds Social, as of 2015**

Country head office	Name of the fund or institution	Total investments in 2015 in US\$ millions	Social investments (as a % of total investments)			
			Social impact investments	Social/development VC and SME finance	Other social investments	Total social investments
Argentina	Sustainability Guarantee Fund (1)	50,689	6.1	-	-	6.1
Australia	Health Employees Superannuation Trust Australia	24,683	-	-	0.1	0.1
Australia	Sunsuper (2)	16,732	0.3	-	-	0.3
Australia	Hostplus Superannuation fund	13,947	-	-	0.6	0.6
Denmark	PFA Pension	56,574	-	0.2	-	0.2
France	ERAFP	25,572	0.1	1.0	-	1.1
Netherlands	Stichting Pensioenfondsen ABP	429,916	-	0.6	-	0.6
New Zealand	New Zealand Superannuation Fund	19,974	-	-	0.4	0.4
South Africa	GEPP	109,203	-	0.1	-	0.1
Spain	Fonditel (3)	3,731	-	-	0.9	0.9
Spain	Santander	238	-	0.7	-	0.7
Sweden	AP2	35,387	-	0.1	-	0.1
Switzerland	Pensionskasse Post	15,788	-	-	1.3	1.3
United Kingdom	USS	70,602	-	0.0	-	0.0
United States	Massachusetts PRIM Board (4)	60,965	0.0	0.0	0.0	0.0

Source: OECD 2018c.

Note: SME = small and medium enterprise; VC = venture capital.

**Figure 2.1: Types of alternative finance as a percentage of total volumes, 2017**



Source: World Bank elaboration based on data from the CCAF database on alternative finance.  
 Note: P2P = peer to peer lending.

**Some, but not all, of the factors that have pushed AEs to develop alternative mechanisms for SME financing are applicable to EMDEs.** The key issue is whether the capital markets in EMDEs, which are at earlier stages of development, could support the development of solutions and products that are similar to those present in AEs. In this regard, in the bulk of EMDEs both the equity and corporate bond markets are at a limited level of development. Only “emerging markets,” as per the Morgan Stanley Capital International (MSCI) definition, have more developed capital markets, although in many of them liquidity is still a challenge. However, there are three positive factors to consider. One is the emergence in many EMDEs of an institutional investor base with sizable assets under management. A second factor is financial technology, which is taking hold in many EMDEs as a result of demographics and internet penetration. The third factor is the growth of mutual funds, which are the vehicle through which retail investors are starting to participate in capital markets in most EMDEs.

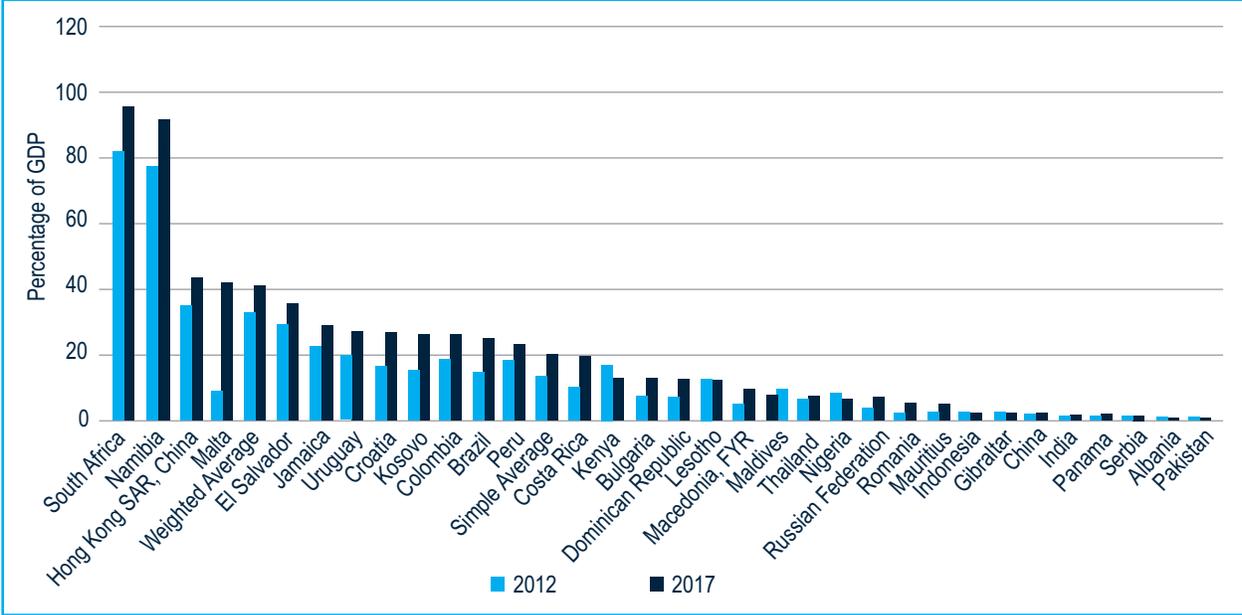
**In many EMDEs institutional investors, in particular pension funds, have grown considerably during the past decade.** For many EMDEs this growth is the result of reforms that have instituted mandatory retirement systems, combined

with demographics. As shown in figure 2.2, pension fund assets in selected non-OECD countries almost doubled over the previous five-year period, with pension assets making up over 95 percent of GDP in countries such as Namibia and South Africa. In contrast, as can be seen in figure 2.3, insurance penetration has remained low, although there has been some growth of the life insurance portion, which requires long-term assets.

**So far, the investment of pension funds and insurance companies in SME-related assets in EMDEs has been limited.** In many EMDEs, institutional investors have restricted their investments in SME-related assets to holdings of issuances by banks (with large SME portfolios) and specialized SME lenders. In addition, in some countries institutional investors also participate in venture capital and private equity, although their investments in this asset class are still very limited, as will be further discussed in this report.

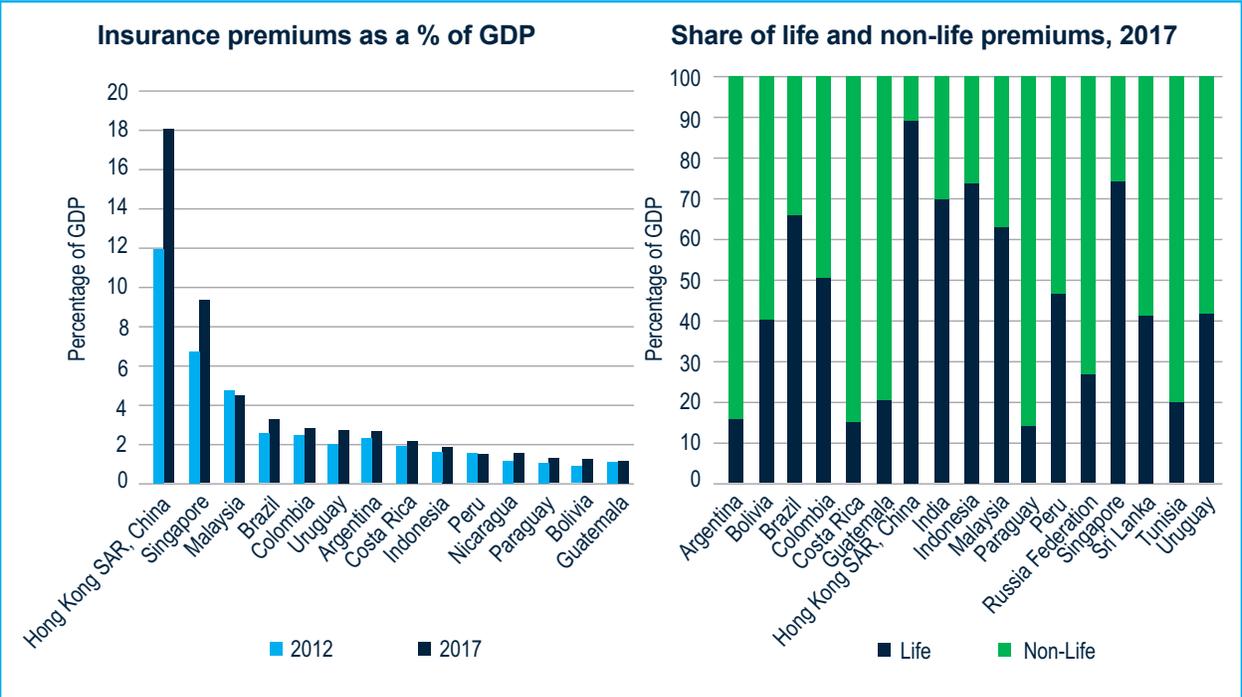
**Further, the portfolios of institutional investors in EMDEs are still highly concentrated.** Pension fund assets in selected non-OECD countries are concentrated in fixed-income investments (bills and bonds) and in public equity, a reflection of the funds’ continued preference for government securities

**Figure 2.2: Assets under management by pension funds in selected non-OECD countries**



Source: Own elaboration based on data from OECD 2018a.  
 Note: GDP = gross domestic product; OECD = Organisation for Economic Co-operation and Development.

**Figure 2.3: Insurance in selected non-OECD countries**



Source: Own elaboration based on data from OECD 2019b.  
 Note: OECD = Organisation for Economic Co-operation and Development.

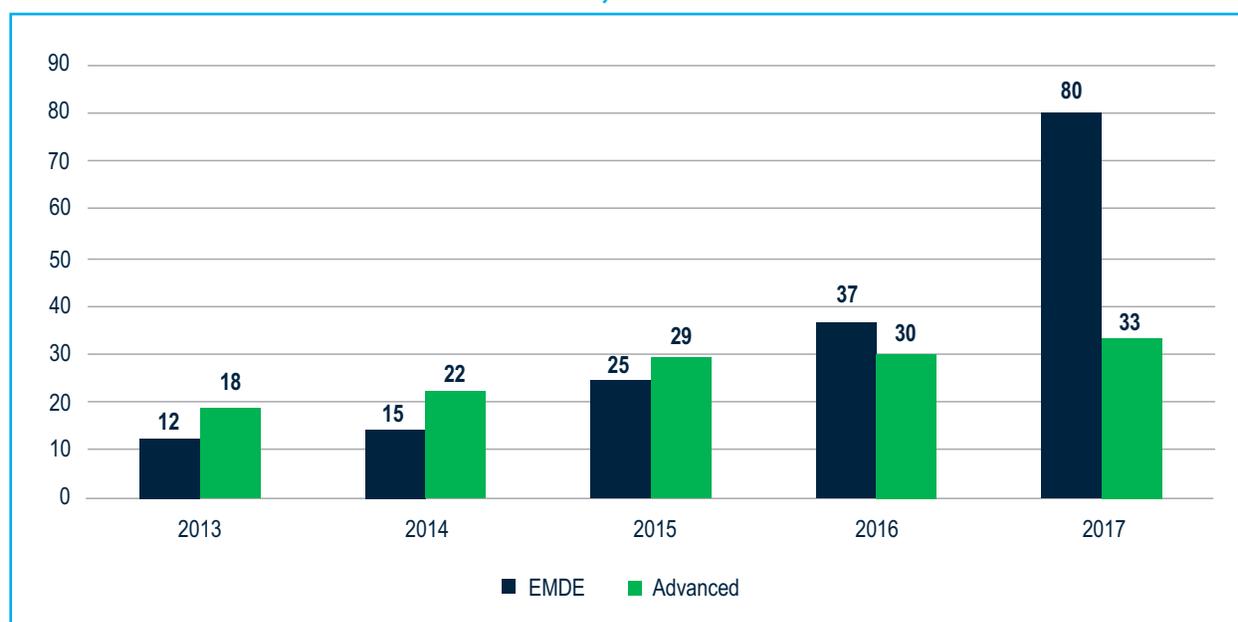
and large corporate debt and equity instruments. Similarly, insurance assets in selected non-OECDs are particularly concentrated in fixed-income and cash instruments, which might largely be a reflection of the low penetration of life insurance in some EMDEs, with insurers having to maintain enough liquidity to service non-life insurance claims.

**In this context, the need for further diversification could trigger investors' interest in new SME capital markets solutions.** Particularly in connection to pension funds, some shifts toward alternative or “other” assets<sup>17</sup> have been observed in a few EMDEs, most notably in Brazil, Kenya, South Africa, Tanzania, and Zambia, where over 40 percent of pension assets are in alternative investments. As will be further explained in this report, the “other” assets category is one in which many SME-related solutions would fall. However, in some EMDEs, governments have had a crowd-out effect, because to finance their large fiscal deficits they have continuously issued securities in the domestic market at very high rates. That action dampens the interest

of institutional investors in other asset classes given that by investing in government issues the investors can earn a good return at “lower” risk.

**The second development that could ignite further use of capital markets for SME financing is the increased role of financial technology in EMDEs.** While lower than in AEs, internet penetration in EMDEs is growing at a fast pace, fueled by an increased availability of information technology infrastructure and a young population. That progress is paving the way for an enhanced application of technology to financial services. The first example has been in payments. However, as technology takes hold other applications will start to become available. In the capital markets area, one key application affecting SME financing has been the development of platforms for fundraising, as has been the case in AEs. Figure 2.4 shows the rapid expansion of alternative finance throughout EMDEs: while data were available for just 12 EMDEs in 2013, that number jumped to 80 in 2017.

**Figure 2.4: Number of alternative platforms in emerging markets and developing economies and in advanced economies, 2013–17**



Source: World Bank elaboration based on CCAF database on alternative finance.  
 Note: EMDE = emerging market and developing economy.

**But the presence of EMDEs goes beyond the number of countries.** As table 2.2 indicates, EMDEs agglutinated 86 percent of global volumes in 2017 (44 percent in 2013). EMDEs concentrated between 84 percent and 95 percent of total volumes in each instrument except for equity crowdfunding (19 percent).

**Part of the explanation for the EMDEs' high share of the alternative finance market stems from the dominant position of China,** with about 86 percent of total volumes, as seen in table 2.3. In a distant second and third place come the United States (10 percent) and the United Kingdom (2 percent), respectively. China contributes 93 percent of P2P flows and 73 percent of invoice trading. Only in the equity crowdfunding segment does China not hold

the leading position, surpassed by both the United Kingdom and the United States.

**But many other EMDEs make the top 20.** In 2017, a heavy concentration still existed in the top 10 countries (99 percent of total volumes and no less than 91 percent at the level of individual instruments). However, as table 2.3 shows, the Republic of Korea, India, and Brazil joined China in the top 20 overall ranking. Also, Georgia, Korea, Poland, India, Latvia, and Brazil made the top 20 for peer-to-peer lending; Chile, Czech Republic, Mexico, Slovenia, Estonia, United Arab Emirates, and Poland ranked in the top 20 for invoice trading; and India, Korea, Malaysia, Brazil, United Arab Emirates, and Indonesia were included in the top 20 for equity crowdfunding.

**Table 2.2: Alternative Finance Volumes: Distribution Between Advanced and Emerging Market and Developing Economy Countries, 2013 and 2017**

Instrument	Total 2013	Total 2017	AEs 2013	EMDEs 2013	AEs 2017	EMDEs 2017
	In US\$ billion		In % of total		In % of total	
Equity crowdfunding	0.2	1.3	100	0	81	19
Invoice trading	0.2	6.7	86	14	16	84
Business P2P	2.2	102.2	35	65	5	95
Consumer P2P	6.6	242.9	53	47	7	93
Total P2P	8.8	345.3	48	52	7	93
<b>Total volume</b>	<b>11.0</b>	<b>418.0</b>	<b>56</b>	<b>44</b>	<b>14</b>	<b>86</b>

Source: World Bank elaboration based on CCAF database on alternative finance.  
Note: AE = advanced economy; EMDE = emerging market and developing economy.

**Table 2.3: Alternative Finance Instruments: Top 20 Countries, by % of Corresponding Global Volumes in 2017**

Ranking	Country	Total volume	Country	Equity crowdfunding	Country	Invoice trading	Country	P2P total
1	China	85.62	United Kingdom	31.07	China	72.99	China	92.91
2	United States	10.22	United States	17.09	United Kingdom	13.20	United States	4.65
3	United Kingdom	1.91	China	16.29	Italy	2.04	United Kingdom	1.26
4	Australia	0.27	Israel	8.62	Australia	1.86	Germany	0.13
5	Korea, Rep.	0.27	Finland	4.15	Chile	1.54	France	0.12
6	Canada	0.21	France	3.96	Ireland	1.47	Korea, Rep.	0.09
7	France	0.18	Singapore	3.58	United States	1.46	Australia	0.08

8	Germany	0.16	Sweden	2.78	Belgium	1.07	New Zealand	0.07
9	Japan	0.08	Spain	1.73	Sweden	0.46	Georgia	0.06
10	Netherlands	0.08	Germany	1.61	Spain	0.45	Japan	0.05
11	Israel	0.07	Netherlands	1.46	France	0.44	Finland	0.04
12	Italy	0.06	India	1.28	Netherlands	0.44	Poland	0.04
13	India	0.06	Canada	1.00	Denmark	0.40	India	0.03
14	New Zealand	0.06	Korea, Rep.	1.00	Singapore	0.35	Israel	0.03
15	Finland	0.05	Austria	0.71	Czech Rep.	0.32	Netherlands	0.03
16	Sweden	0.05	Malaysia	0.58	Mexico	0.27	Canada	0.03
17	Brazil	0.05	Brazil	0.42	Slovenia	0.20	Latvia	0.03
18	Georgia	0.05	Italy	0.39	Estonia	0.16	Brazil	0.03
19	Singapore	0.05	United Arab Emirates	0.35	United Arab Emirates	0.16	Italy	0.03
20	Spain	0.04	Indonesia	0.27	Poland	0.16	Spain	0.02
% Top 10		99.00		90.88		96.55		99.42
% Top 20		99.56		98.35		99.44		99.74

Source: World Bank elaboration based on CCAF database on alternative finance.

Note: P2P = peer to peer.

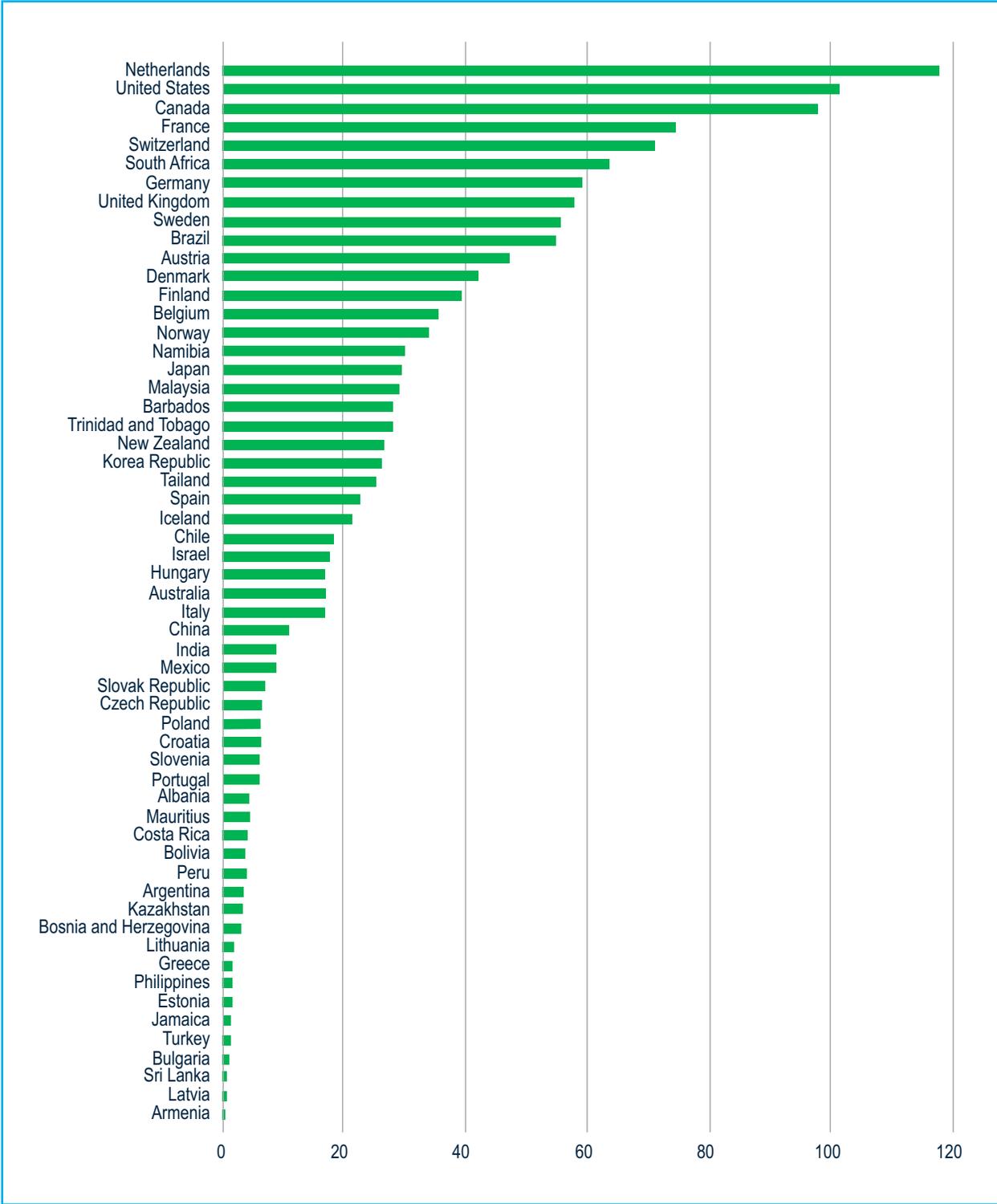
**Finally, as mentioned earlier, in many EMDEs retail investors are starting to participate in capital markets via mutual funds.** Although assets under management by mutual funds in EMDEs are much smaller than those of pension funds, they are growing at a reasonable pace on the back of an emerging middle class with savings to invest (figure 2.5). As will be explained later in this report, mutual funds are a key vehicle for SME financing, because they allow investors to “liquify” several SME-related assets that traditionally could not be traded in the capital markets.

**The evidence in this section provides a favorable picture for an expansion of the role of capital markets in SME financing in EMDEs.** However, for such a role to materialize, different types of capital markets solutions need to be available to cater to different needs. As indicated in the introduction to this report, the solutions have been divided into two main groups: indirect mechanisms for SME financing—which cover mechanisms to refinance SME lenders via capital markets (issuances by SME lenders, SME loan securitization, and SME structured bonds)—and direct mechanisms for SME financing—which cover loan-based solutions, receivables-based solutions,

and securities offerings solutions. These solutions will be discussed in sections 3 and 4, respectively.

**That said, at a country level several challenges affect the development of capital markets solutions for SME financing.** Overall, the development of the solutions is affected by the level of development of the capital markets, the health of the SME sector, and the condition of the SME finance markets. But at a more granular level, EMDEs face challenges related to the supply side (availability and quality of the underlying assets), the demand side (existence of a broad investor base willing and able to invest in SME-related assets), and the market infrastructure (availability of a wide range of securities intermediaries and information providers) that affect the development of particular types of solutions. In addition, appropriate regulation and supervision need to be in place to ensure that the expansion of nonbanking solutions does not create material risks to investor protection or to financial stability. This in turn requires that the regulators as well as the market participants possess a deep understanding of the characteristics and risks imbedded in each of the market-based solutions. That is not always the case in EMDEs. All these challenges are discussed in section 5.

**Figure 2.5. Ratio of mutual funds to gross domestic product, 2016**



Source: World Bank elaboration based on the World Bank's Global Financial Development database.

# Indirect Mechanisms for SME Financing

**The first role that capital markets can play in SME financing is to be a refinancing facility for SME lenders.** Capital markets can provide SME lenders with mechanisms to refinance themselves, which can help them lower their own funding costs. This in turn could help them compete more effectively in the credit markets, which can lead to an expansion of the universe of SMEs served, to better lending conditions for the SMEs, or to both.

### Plain vanilla issuances by specialized SME lenders

For this report, plain vanilla issuances by specialized SME lenders are defined as equity and debt issuances issued by entities different from banks that provide financing to microenterprises and SMEs.<sup>18</sup> In many countries financial institutions other than banks that have come to serve the micro and SME sectors include entities such as microfinance institutions, cooperatives, factoring and leasing companies, and, more recently, fintech companies that specialize in providing financing online. Some of these entities cater to SMEs that are not served by banks. In addition, some of them require less collateral than that required by banks. The latter is of particular importance to SMEs because many of them lack the type of collateral (real estate) that banks prefer.

**Equity and debt issuances by specialized SME lenders constitute a first mechanism through which capital markets can assist in expanding SME financing.** These issuances constitute a natural instrument for the portfolio of institutional investors, and their analysis falls within the type

of instruments that institutional investors are accustomed to. In addition, unlike other instruments that will be analyzed in this report, the investment regimes of institutional investors across EMDEs generally allow their investment in these types of securities.<sup>19</sup> That said, other factors could still play a role in investors' appetite for these issuances, including the issuances' size and, in the case of bond issuances, their rating—as will be further discussed in section 5. In addition, particularly if placed via a public offering, the issuances would also constitute a natural investment for retail investors.

**Plain vanilla issuances by specialized SME lenders are a viable solution for many EMDEs, and in fact they can already be found across a wide range of EMDEs.** Overall, banks have been the first issuers in many EMDEs. That is the case because as regulated entities banks are already required to provide audited financial statements on an ongoing basis as well as to have a basic corporate governance, and thus they are better able to comply with the requirements that accessing the traditional public markets imply. But other specialized lenders, including microfinance institutions and leasing and factoring companies, have been able to come to market, which in turn has enabled them to diversify their funding sources and, in some cases, to also obtain longer-term and cheaper financing. Such issuances have been attractive to institutional investors in EMDEs (Reille and Forster 2008). Recent examples in Africa include issuances in Zambia (Bayport), Kenya (Faulu), and Tanzania (Pride), which attracted interest from both global and local institutional investors, in addition to DFIs (Carvajal and others 2017). See box 3.1.

### Box 3.1: Corporate bond issuances by specialized SME lenders: Bayport Financial Services corporate bond issuance in Zambia

Bayport Financial Services (Bayport) is Zambia's largest microfinance lender, serving more than 100,000 customers across 30 branches, with a net loan book of US\$216 million. As a market leader in payroll-based lending, Bayport wanted to expand its services to small businesses and low- and middle-income borrowers. With support from the International Finance Corporation (IFC), Bayport established a medium-term note program that would enable it to regularly raise funds in the domestic capital markets to fund the expansion of services.

In 2014, Bayport became the first nonbank financial institution in Zambia to tap local capital markets, with the issuance of a four-year medium-term note of ZMW172 million (US\$26.5 million at the exchange rate at the time). The initial ZMW150 million offered was increased by ZMW21 million in response to strong investor demand. The IFC provided an anchor investment of ZMW60 million (US\$9.3 million at the exchange rate at the time) and the African Local Currency Bond Fund, a unit of Germany's KfW, committed to invest 13 percent of the issuance. These anchor investments enhanced Bayport's profile and attracted other investors, including pension funds and insurance companies, to the transaction. Bayport has since issued a second five-year corporate bond worth ZMW300 million in the local capital markets. The issuance was approved by the Securities and Exchange Commission of Zambia in 2017.

Source: Shi 2016.

**Nevertheless, in some countries access has remained relatively restricted to larger, well-established nonbank financial institutions (NBFIs).** Smaller NBFIs have struggled to tap the local markets for various reasons—including the cost of listing requirements relative to the size and sophistication of the NBFI, weak governance structures, and the inability to meet minimum credit ratings (in the case of bond issuances), among other constraints. That is why, for example, initial bond issuances by less-established NBFIs have typically required credit enhancements or anchor investments from reputable banks or DFIs. As will be discussed further, in other markets structured transactions—such as microfinance loan securitization funds—have enabled smaller NBFIs to indirectly tap local bond markets.

#### SME loan securitization

**SME loan securitization is a financing technique that allows the transformation of SME loans, which are illiquid in nature, into tradable securities.** To this end a bank or SME lender (the “originator”) bundles a package of SME loans into a pool (“portfolio”) and sells the portfolio to capital market investors through the issuance of securities by a special purpose vehicle (SPV). The securities are

backed by the loan portfolio (asset-backed securities, or ABS). The ABS, classified by risk categories, represent tranches of the underlying portfolio.

**SME loan securitization has the potential to expand SME financing.** Securitization can provide SME lenders with an alternative source of funding in cases in which other mechanisms of refinancing (such as plain vanilla bonds) can be sold only at high cost. In addition, it potentially enables banks to achieve economic and regulatory capital relief. Also, this solution could reduce the cost of financing for SMEs. Further, SME securitization can potentially have a multiplier effect in the funding available to SMEs if the lender uses the capital “freed” through the transaction to lend again to SMEs.

**From an investor's perspective, SME loan securitization could have many benefits.** First, it enables investors to gain access to an asset class whose performance is tied to the whole economy. While other asset classes can do that, the attractive feature of SME securitization is that it has the potential to include a portfolio of more diverse and granular (smaller individual) assets, thus allowing investors to better diversify their risk. In addition, investors can choose the degree of risk they are exposed to by selecting the tranche to hold. Finally,

the securities can be traded at lower transaction costs than individual loans are.

**SME loan securitization constitutes a very small part of the overall securitization market in AEs.**

As of 2018 it accounted for just 2.3 percent (\$36.5 billion) of U.S. asset-backed securities outstanding (\$1,561.8 billion), and 6.4 percent (\$94.7 billion) of total European securitization outstanding (\$1,489.2 billion). Furthermore, partly on account of the contraction in European loan growth, new issuance (that is, capturing flows) has reduced substantially in Europe since the peak of \$107 billion in 2007. The United States has the largest SME securitization market in the world, with a significant proportion anchored in the Small Business Administration (SBA) securitization program (see box 3.2). Before the global economic crisis, Germany and Spain were the largest SME securitization markets in Europe. However, the program in Germany has disappeared since the crisis.<sup>20</sup> The Spanish program, which is anchored on a government guaranteed scheme, is still use, but the volumes are low. Post-crisis Italy,<sup>21</sup> and peripheral countries such as Greece and Portugal, became more active, but the volumes correspond to a very small number of underlying deals. More recently, marketplace lenders have started to make use of the securitizations markets.

**The limited use of SME securitization in AEs is mainly a result of structural challenges.** Challenges include the limited availability of quality SME loans at a sufficient volume to allow for “individual” issuances by different lenders; the heterogeneity of the loans, which makes it difficult to make assumptions about the underlying portfolio and its risks; and the short-term nature of the loans, which is not compatible with the long-term liabilities of institutional investors. In addition, there are also challenges associated with information availability because it is difficult to obtain loan-level data in a standardized format. These transactions also have an elevated initial cost due to many of the issues that have been described. In addition, post crisis the regulatory charges associated with the loans have increased, although the international setting bodies have made some calibrations for high-quality securitizations.<sup>22</sup>

**But it has also been affected by more “transitory” issues.** In Europe in particular, the financial condition of banks has resulted in the retention of securitization transactions so that they can be used for repo (repurchase) funding through the European Central Bank. More generally, there is still a reputational issue associated with this asset class, given its role in the global financial crisis. However, because of the importance of the securitization market in general and for SMEs in particular, a number of initiatives have sought to revitalize it and to deepen SME securitization.<sup>23</sup> any of these efforts emphasize the need for high-quality securitizations.<sup>24</sup>

**In EMDEs the SME securitization markets are at a nascent stage.** The characteristics of SME loans previously discussed and the complexity and costs of the transactions are challenges that apply equally to EMDEs. In addition, in many EMDEs banks have not found the need to securitize assets because they enjoy ample liquidity. However, their interest in securitization as a risk optimization tool might increase with the implementation of Basel III.<sup>25</sup>

**In many of the cases found in EMDEs, SME securitization has been used by specialized SME lenders.** India is one of the few countries where SME loan securitization is used consistently. To a large extent its use has been driven by regulatory requirements imposed on banks, which are required to meet certain targets for SME financing either via their own lending or via holdings of ABS in which the underlying assets are SME loans. This requirement has prompted securitizations by microfinance institutions. Yet interesting examples not driven by regulatory requirements are starting to appear also; in these cases, specialized lenders are using the securitization markets as their first step to access the capital markets. For example, in China since Ant Financial Group, a subsidiary of Alibaba, securitized its consumer loans portfolio in 2013, many microfinance institutions have followed suit.<sup>26</sup> In addition, some securitizations by marketplace lenders are also taking place in EMDEs. For example, in 2018 an online lender made the first securitization of digital loans in Argentina. Finally,

recent examples have been found of the use of SME securitization by banks. In particular, in Russia a multi-origination platform was recently developed to securitize SME loans from banks. This platform holds promise as a mechanism that such entities could use on a recurrent basis.

**Overall, consistent use of SME securitization seems more viable for larger EMDEs, and as a medium-term proposition.** Its development requires a corporate bond market to already be in place. Further, given the risk imbedded in SME loans, the existence of a public guarantee program might be a critical element to align the risk appetite of investors with SME securitization, as the experiences of Spain and the United States show (box 3.2). The other critical challenge affecting the viability of the product is the need for a sufficient volume of quality SMEs. Recent examples both in AEs and EMDEs confirmed the role that multi-origination platforms can play in addressing this challenge. Multi-origination platforms have allowed lenders with low volumes of SME loans to access capital markets funded by securitization, because the fixed cost of setting up the vehicle could be shared in proportion to the loans contributed to the deal. Thus, barriers to entering the SME securitization market and SME lending are potentially reduced. It must be acknowledged, however, that multi-origination platforms add another layer of complexity to these transactions. Other issues would likely need to

be tackled, including enhancements to the regulatory framework for securitization, as explained in section 5.

## SME structured notes

**Covered bonds are debt securities issued by a credit institution that are backed by a dynamic cover pool of loans.** Investors have double recourse to the issuer and to the cover pool and, as a result, the covered bond remains an on-balance-sheet instrument. Issuers can be traditional deposit-taking institutions or in some cases specialized mortgage lending institutions primarily reliant on covered bonds for their funding. A key feature, though, is that the issuer must be a regulated institution meeting minimum governance standards and capital adequacy requirements.

**In general, covered bonds are issued under a dedicated legal framework.** In countries that have covered bond legislation, only a restricted type of assets may be included in the cover pool, mainly mortgages and public loans with certain characteristics that make them of high quality. Further, the legislation also requires the exchange of the original loans for performing assets should they become impaired.<sup>27</sup> The existence of such requirements provides investors with confidence that the bonds are issued in a uniform way and adhere to strict standards. This in turn creates a pool of

### Box 3.2: Selected experience with SME securitization

#### United States

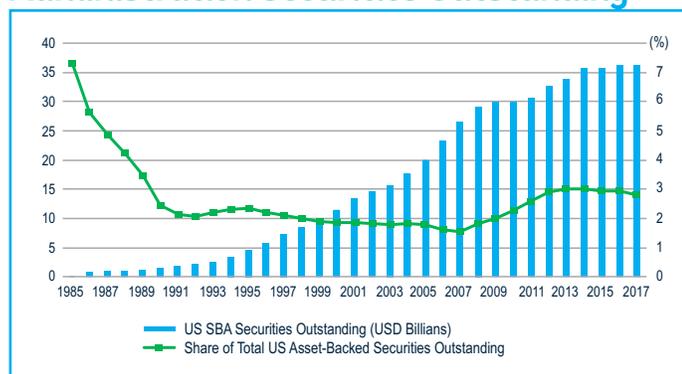
The U.S. Small Business Administration (SBA) was created in 1953 to further the interests of the small business community and to promote competition in the marketplace. As part of its mission, the SBA, under section 7(a) of the Small Business Act, provides loans and loan guarantees to small businesses. On the basis of such authority, the SBA implemented a scheme that provides a partial guarantee on almost \$20 billion annually in loans to small businesses. Businesses must be for-profit and meet the SBA's definition of small. The maximum loan size is \$5 million and the guarantee percentage ranges from 50 to 85 percent, averaging about 72 percent. Loans may be used for machinery, equipment, working capital, and real estate and typically have floating interest rates based on the prime rate or Libor. Tenors up to 25 years are available for real estate loans.

In 1985 the SBA started securitizing the guaranteed portion of the loans, whereby the SBA issues securities that are backed by multiple guaranteed portions of loans. In addition to the credit guarantee of the loans, the securities issued by SBA have a timely payment guarantee. Further, the securities have the full faith and credit of the U. S. government. As a result, investors did not have to worry about payments or perform due diligence on the creditworthiness of the borrowers or lenders. This reduced the investor's purchase costs and encouraged more securities brokers to sell the

product. As the loan scheme and securitization program grew, many loan officers began to specialize in SBA lending. SBA continued to improve the efficiency of the program and delegated significant authority directly to lenders. The program has continued growing, and loan volume exceeded \$30 billion in 2018.

The first securitization backed by the unguaranteed portion of SBA loans took place in 1992. It was only for loans originated by nonbanks, or nondepository lenders. In 1997, banks were allowed to securitize the unguaranteed portion of the 7(a) loans. There is no government guarantee on these transactions. However, SBA required that the lender retain some of the risk in the deal. The amount of the retention was related to the performance of the lenders' portfolio. Overcollateralization was used as a credit enhancement. This process was mainly used as a financing tool by nonbank lenders that did not have a deposit base.

**Figure B3.2.1: Annual U.S. Small Business Administration Securities Outstanding**



Source: SIFMA.

## Spain

In 1998–99, the Spanish government established the FTYMPE (Fondos de Titulización de Pequeñas y Medianas Empresas), a program to facilitate SME securitization. The mechanics of the program are simple: the Treasury commits to guarantee certain tranches of an issuance of a securitization fund, provided that it holds in its portfolio a minimum percentage of bank loans to SMEs. In return for the liquidity gained through the sale of the SME loans, the originator commits to reinvest part of this liquidity in SME financing.

The participating banks must sign an agreement with the minister of economy and finance; assuming certain commitments, in particular: (a) at least 50 percent of the assets transferred must be SME loans, with an initial maturity of not less than one year; (b) financial institutions transferring assets must reinvest at least 80 percent of the proceeds into new SME loans; and (c) the reinvestment must take place within two years, with at least 50 percent reinvested in the first year.

The bonds issued by the funds with a rating of AA, Aa, equivalent or superior, can obtain a guarantee from the government, through the public Treasury of up to 80 percent of their amount. All the bonds that are guaranteed by the government must be traded in an official Spanish market.

As with Spanish securitization in general, multi-originators are common. Before the global economic crisis, originating banks retained the higher risk equity tranches. Since 2008, originating banks have retained the bulk of the senior tranches (on sharply reduced new issuance) to use as collateral for refinancing from the European Central Bank. Since 2000, €50,640 million has been issued, making it possible to reinvest more than €40,512 million in new credits for SMEs, though volumes have declined since the crisis.

## Armenia

In Armenia, monetary financial institutions—or universal credit organizations (UCOs)—are not permitted to accept deposits and therefore struggle to raise sufficient resources to meet the demand for finance from microenterprises and SMEs. To address this challenge, the U.S. Agency for International Development (USAID) Development Credit Authority worked with five UCOs—CARD AgroCredit, Gami Invest, Global Credit, Kamurj, and Nor Horizon—to establish a special purpose vehicle (SPV) to enable the UCOs to tap the local bond markets. The SPV, known as the Loan Portfolio Securitization Fund, was launched in August 2015 with the purpose of securitizing US\$2 million worth of microfinance loans of the five participating UCOs. The fund issued its first bond on the NASDAQ OMX Armenia in January 2016, making it the first securitized bond issuance in Armenia. The issuance was also accompanied by a 50 percent guarantee on the bond principle from USAID's credit authority. The securitized loans are registered with the central bank and the projected cash flows structured as bonds. The investment is expected to support up to 17,000 new loans in agriculture and other rural, small businesses. Primary bondholders include two pension funds, several banks, and other financial institutions.

Source: World Bank elaboration based on information from Board of Governors of the Federal Reserve Board System 2017 and Securities Industry and Financial Markets Association for United States; Gobierno de España, Ministerio de Industria, Comercio y Turismo, Portal PYME for Spain; and USAID 2016 for Armenia.

bonds that are broadly homogenous and establishes a deep and liquid secondary market, which helps reduce overall funding costs. As a result of the high quality of the underlying assets, the bonds are given a beneficial regulatory treatment.

**Covered bonds have been a strategically important addition to the funding options available to financial institutions, in particular to mortgage lenders in Europe.** Covered bonds have provided the market with a long-term funding tool with cost-efficient performance on the issuer’s side and a stable and safe long-term, liquid investment on the investor’s side, contributing significantly to the creation of an efficient housing market. They also possess other advantages for investors. They come in simple structures, usually as bullet bonds. In addition, adverse selection and agency problems are lower than under securitization, since the collateral is still on the bank’s balance sheet. Further, European Union (EU)–based banks like the lower capital charges and the preference the banks receive under the Liquidity Coverage Ratio act. Insurance companies like the more lenient treatment that covered bonds receive under Solvency II act compared with other private debt.

**Very few experiences with “covered bonds” backed by SME assets have been recorded in both AEs and EMDEs, mainly due to the nature of the assets, which in turn has an impact on their regulatory treatment.** Due to the higher credit risk associated with SME loans, very few countries have included them in their covered bond laws. As a result, there are very few examples of covered bond transactions backed by SME loans. For example, some transactions have taken place in Germany, but the “covered bonds” have been issued under a contractual scheme (Wehinger and Nassr 2015). In France, the French Banking Federation introduced a separate instrument, the Euro Secured Notes Issuer, which is a platform designed to support SME lending in France and the rest of Europe. This initiative aims to overcome information asymmetries by making use of the Banque de France’s credit assessment of nonfinancial companies as well as the internal ratings from banks. The scheme uses a SPV structure, incorporated under the French rules of

securitization funds, whereby each participating bank has a separate compartment in the vehicle. Within a compartment, notes are ranked *pari passu*. The sponsor banks also provide overcollateralization. However, this instrument is not included as an eligible asset under the covered bond legislation and the market does not perceive it as a “covered bond,” although it benefits from a dual recourse to the issuer and the cover pool assets (Wehinger and Nassr 2015). Only Turkey and, more recently, Italy and Spain allow the inclusion of SME loans as part of the covered bond pool. However, at least in the case of Italy, the SME-covered bond is not explicitly covered by the Bank of Italy regulation for covered bonds regarding supervision, asset monitoring, and minimum capital requirements for the issuers (Wehinger and Nassr 2015).

**In this context, the design of a separate instrument that relies on some of the characteristics of covered bonds (the dual recourse) might be the best option.** Europe has recently proposed the creation of a separate instrument for SME loans. In July 2018 the European Banking Authority (EBA) supported the development of a structured note backed by SME loans, which could be structured as a dual recourse instrument (EBA 2018). However, because of the high risk profile of SME exposures, the EBA suggested a more restrictive framework, especially with respect to the coverage, the liquidity, and the disclosure requirements, and it suggested strict eligibility criteria at both loan and pool level and a minimum level of overcollateralization of at least 30 percent. In terms of capital requirements, the EBA advised that no preferential treatment (similar to covered bonds) be granted. Nevertheless, it recommended that authorities consider a differentiated risk-weight treatment compared with unsecured notes subject to certain conditions.

**This type of instrument (SME structured notes) could be particularly useful for first-time microfinance institutions or other NBFIs in EMDEs.** Indeed, the dual recourse characteristic of this instrument might provide investors with sufficient comfort provided that the underlying portfolio is of high quality. That is, for example, the model that Colombia is using as the basis for a “securitization” structure of rural microloans (see box 3.3). In the

Colombia case the initial structure will be issued under a contractual arrangement. It is possible, however, that for this instrument to be scalable, a regulatory framework might be needed to establish restrictions in regard to the assets that could be included in the pool

(high quality only) and, based on those restrictions, to provide a differentiated risk weight treatment to these notes compared with unsecured notes, in line with the EBA proposal.

### Box 3.3: A hybrid structure using structured notes and securitization: The experience of Colombia with rural microcredit

In Colombia, the World Bank Group is supporting relevant players in the microfinance sector to access capital markets by pioneering the country's first securitization program for microloans.

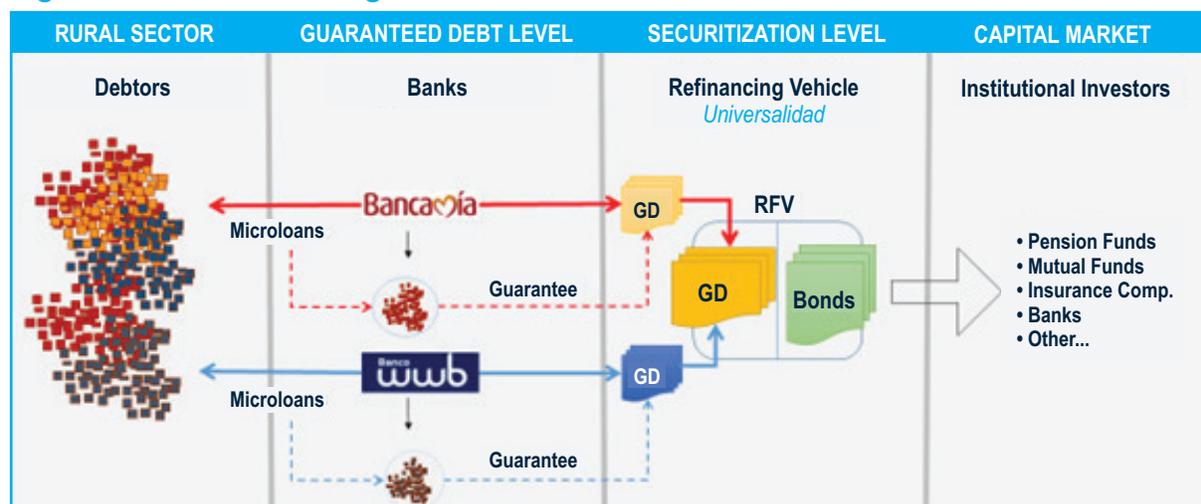
At the time of this report, four of the largest microfinance institutions in Colombia are planning to issue a multi-originator securitization bond. The initial value of the bond issue is expected to range from US\$68 million to US\$102 million and will underpin a three-year microcredit securitization program.

The proposed model (figure B3.3.1) is anchored on a dual recourse structure. The participating entities will individually issue guaranteed debt, backed by a portfolio of assets legally separated from the originator through a special purpose vehicle. The guaranteed debt will be securitized through a "single refinancing vehicle," which in turn will issue debt/bonds in the capital market.

To reduce prepayment and refinancing risk associated with microloan operations, the bond issues will have a bullet repayment structure with periodic interest payments and principal amortization at maturity. In addition, the proposed refinancing vehicle would need to have access to a stable line of credit and a liquidity reserve fund to match the liquidity needs of the originators to the bond issuance schedule, and to prevent delays in interest payments. The sources for the line of credit are critical for the successful implementation of the proposed financing structure. Two of the three entities identified as potential providers/guarantors of funds are public institutions dedicated to guarantee and fund loans and activities that benefit the agricultural and rural sector. The third institution is the International Finance Corporation, which would be subject to the financing scheme's operational requirements.

To ensure market liquidity, the investors expect a continuous and standardized bond issuance program, with a minimum issue size. The credit line is essential to provide the participating entities with the required funds to maintain the collateral loan portfolio at a sustainable level. A continuous ongoing program should have at least one transaction a year, an outstanding balance of bonds in the market of approximately US\$100 million, and overcollateralization of 150–165 percent of this amount. However, the negotiation process between investors, participating entities, and other institutions is ongoing and could result in adjustments to the proposed structure.

Figure B.3.3.1: Financing model



Source: Carlos Senon Benito, financial sector specialist, World Bank Group.

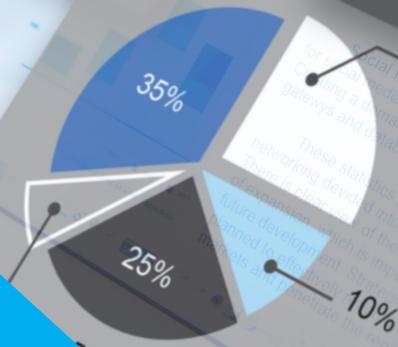


# FINANCIAL

Costs  
\$100,000  
Costs : \$42,000  
= 9800/avg  
**89%**



**DATA**  
downloading 70% c



for social media The communities are ever expanding networking developing gateways and databases

These statistics preview some of the main areas of development in the future. It is important to understand the impact of these changes on the business.



# Direct Mechanisms For SME Financing

**Until recently SMEs had very few mechanisms to access the markets directly.** In general, two mechanisms have been used: venture capital (VC) and private equity (PE) funds and small securities offerings via private or public placements. However, VC funds have been restricted to start-up companies and PE funds to more established/larger companies, and small securities offerings have been an option mainly for the larger SMEs. Since the crisis other solutions are emerging that have the potential to serve a wider range of SMEs.

### Debt solutions

#### Receivables-based solutions

**Even before long-term finance, what most SMEs need is working capital.** Although many factors affect the cash flows of SMEs, a key element refers to the contractual terms under which SMEs sell their goods and services, terms which in many cases require them to sell at credit and under extended payment terms.<sup>28</sup> While late payment terms help buyers optimize their own working capital, from the SME perspective late payments increase their costs and financial uncertainty and could result in bankruptcies of otherwise viable businesses.<sup>29</sup>

**In practice, this situation forces many SMEs to sell their receivables (credits) to banks or factoring companies to obtain liquidity.** However, in many cases the spreads are high, to some extent because of lack of competition. Financial technology and in some cases also the financial condition of banks have opened space for competition to the factoring industry and have improved the conditions under which SMEs obtain short-term funding via different

types of solutions. Some of those solutions aim to bring capital markets investors to the table.

**In this report receivables-based solutions encompass different arrangements that enable SMEs to obtain liquidity via the sale of receivables to investors.** Such solutions can be grouped into two options: (a) platforms for the sale of receivables and (b) securities in which the underlying assets are receivables. In this report, the focus for the latter type of solution is on funds, although other solutions, such as securitizations, also could be structured.

**The benefits of receivables-based solutions for SME financing are clear.** These solutions have the potential to expand SMEs' access to working capital, both by expanding the range of SMEs that could get access to financing and by providing better conditions than those offered by more traditional solutions, in terms of the spreads paid. The key to obtaining such benefits lies in increasing competition in the factoring industry via the entrance of additional “financiers”—in this case, in the form of investors.

**From an investor's perspective, receivables solutions provide access to a new asset class that can deliver attractive yields.** Before the emergence of these solutions, only banks and factoring companies generally had access to this asset class. But, particularly after the global financial crisis, the interest in these assets accelerated because they can provide investors with attractive returns at a time of low interest rates. Those attractive returns, however, are associated with higher credit risk and limited liquidity. Interest in these instruments has spanned both retail and institutional investors.

**All receivables solutions can be structured using reverse factoring and traditional factoring.**<sup>30</sup> In this report, reverse factoring refers to solutions in which the initiative in choosing the receivables to be sold comes from the buyer of the goods and services.<sup>31</sup> From an investors' perspective, this leads to an easier credit risk analysis, because reverse factoring is usually promoted by large companies, for which information is usually available in the market. Because it is associated with large companies with good credit quality, the credit risk is lower. Traditional factoring refers to solutions whereby the SME itself chooses the receivables to sell; thus, in principle it is not limited to receivables of large companies to which they supply goods and services. From an investor's perspective, the analysis involved is likely more complex and the credit risk, potentially higher.

## Receivables platforms

**In this report receivables platforms are defined as electronic platforms that enable SMEs to sell their receivables directly to a wide range of investors.** The platform acts exclusively as an intermediary that prescreens the receivables using proprietary technology, but ultimately the credit risk is borne by investors. In many cases the platforms offer collection services. The focus of this report is on platforms that create a marketplace for receivables by allowing the entrance of a plurality of investors (box 4.1).

**Available data indicate that volumes traded on this type of platform are growing significantly, although from a very low base; as a result, their impact is still limited.** From 2013 to 2017 the volumes of financing raised in these platforms grew from \$0.3 billion to \$6.7 billion. In 2017, EMDEs concentrated 84 percent of total volume raised. While most of this volume was raised in China, other countries in the top 20 included Chile, Czech Republic, Mexico, Slovenia, Estonia, United Arab Emirates, and Poland (see table 2.3, invoice trading).

**Particularly in EMDEs, some of the platforms have been developed with government support.** In some cases, domestic development banks have been directly involved in the creation and implementation of the platforms, including Nafinet in Mexico—which was developed by Nacional Financiera (NAFIN), a development bank that focuses on SMEs—and the Receivables Exchange of India (RXIL), which was the result of a joint venture between the Small Industries Development Bank of India and the National Stock Exchange of India. In at least one case (Nafinet), the platform operator provides guarantees/lines of credit to the financiers.

**The operators of the platforms vary.** In some cases, the platforms are operated by “traditional” exchanges (for example, Bolsa miPYME in Chile and RXIL in India), while in others they are operated by fintech companies (for example, Workinvoice in Italy, and MarketInvoice in United Kingdom).

**Some of the platforms operate under a reverse factoring model (such as Nafinet); others are based on traditional factoring.** But some of those traditional factoring examples impose certain restrictions on the receivables that may be sold (for example, limiting them to receivables against medium and large companies), thus bringing them close to reverse factoring, at least in terms of the risk borne by investors (an example is Workinvoice in Italy.) Finally, others support both factoring and reverse factoring (Bolsa miPYME and RXIL).

**Platforms have evolved in terms of the options they give investors to decide on their investment.** In general, platforms allow investors to choose manually the receivables they want to invest on the basis of the information that the platform provides. But some platforms offer more automated solutions, whereby investors can set parameters—for example, in terms of their target return, duration, and exposure limits—and then the platform “autobids” using the parameters.

## Box 4.1: Selected experiences with receivables platforms

### The seed for marketplaces: Nafinet in Mexico

One of the first examples of electronic platforms for the sale of receivables is Nafinet, the receivables platform developed and operated by Nacional Financiera (NAFIN), a Mexican development bank. The platform went into operation in 2001.

The platform is based on reverse factoring, whereby large companies (empresas de primer orden, or EPOs) affiliate with the platform and then choose the small and medium enterprises (SMEs) that will be able to “post” their receivables in the platform. EPOs from the private sector must comply with certain requirements, in particular a minimum size (level of sales on an annual basis), and they are subject to certain minimum disclosure obligations (such as providing financial statements). In addition, in 2007 the federal government required all its dependencies and entities in the public sector to incorporate to Nafinet.

Several banks are affiliated with the platform in the role of “financiers”/buyers of the receivables, and in that sense Nafinet could be considered the precursor of marketplaces for receivables. NAFIN requires all participating banks to use its second-tier funding to provide credit through the system. However, the provision of credit by NAFIN is not key for the functioning of the program. NAFIN does not charge a fee for the use of the platform; rather, it covers its costs with the interest it charges on its loans.

From an operational point of view, the SME chooses the receivables that will be auctioned, banks then can post their bids, and the SME chooses which bid it accepts. The bank pays the SMEs, discounting its financial cost. In addition to obtaining liquidity, the SME is able to start to build a credit history that facilitates its access to other programs of NAFIN. When the receivables are due, the large company pays the bank. The platform operates in pesos and dollars.

### Expanding the base of financiers: The cases of Chile and Italy

The Bolsa de Productos de Chile has negotiated receivables since the early 2000s. In November 2016 it modernized its platform and created Bolsa miPYME, an electronic platform for the sale of receivables through which it seeks to expand SMEs access to financing. The model can be considered a hybrid system. While SMEs affiliate first, they can sell receivables only from companies that are registered in the platform. Such companies are large companies for which financial information is available. As of 2017 349 companies were registered in the exchange. Increasingly, factoring companies participate in the platform also selling their portfolios of receivables. As of 2017 10 factoring companies were registered as participating entities. Receivables are sold to investors, who participate in the auctions via the brokerage houses to which they send their orders to buy specific receivables. Sales are without recourse. Increasingly institutional investors, in particular banks and mutual funds, invest in these receivables. Volumes in the platform have a positive trend. For 2017 alone it transacted US\$42,000 million, with growth of 7 percent from the previous year. For 2017 SMEs represented 38 percent of all receivables sold, about 20 percent of total volumes, and 73 percent of the companies that participated.

In Italy, Workinvoice was established in 2015. The platform is open to Italian companies of any size (even start-ups). Companies can sell single receivables, with a minimum size of receivables of €10,000, provided that the receivable is issued against a private company with annual sales of at least €10 million. Investors compete for the receivables through an auction process. The sale of receivables is final—that is, the risk on nonpayment is transferred to the investors.

Operationally, the seller (SME) decides the minimum price for the receivable, and then investors compete in the platform. The winner is the investor that offers the highest price. The platform then pays the SME 90 percent of the receivable within 48 hours and the remaining 10 percent (minus the remuneration of the buyer and the platform fee) when the receivable is actually paid. The platform charges a fixed cost (currently at €450) at the moment of adhering to the platform, and then a fee per transaction (of between 0.4 and 0.9 percent, depending on the terms agreed). As of November 11, 2018, Workinvoice had provided financing for €180 million.

Source: World Bank elaboration based on information from De la Torre, Goggi, and Schmukler 2017 (Mexico), the website of Bolsa miPYME (Chile), and the website of Workinvoice (Italy).

**Overall World Bank experience in the field, supported by empirical research, suggests that receivable platforms could be a viable solution for many EMDEs.** A key reason is that the underlying assets are already available, given that it is normal practice for SMEs to need to provide their goods and services at credit. Furthermore, empirical research conducted by the World Bank suggests that the growth of these platforms is not associated with the wealth of countries, a finding that reinforces the viability of these platforms across many EMDEs. That said, as will be discussed further, other issues might hinder their development, including, in particular, the level of internet penetration and the requirements for the transfer of the receivables. In addition, an investor base would need to exist to make this solution scalable. Depending on the country, changes to the regulations of institutional investors might be needed to allow them to invest in receivables, to help increase the investor base. Finally, the research conducted did find a correlation between the development of these platforms and credit intermediation and the rule of law, findings that suggest the need for governments to continue improving basic aspects of the enabling environment.

### Receivables funds

**SME receivables funds are credit funds that invest in receivables owed to SMEs.** In practice, the funds often invest in a range of alternative assets, including consumer loans, small business loans, and receivables, that generate interest or a similar income stream rather than investing exclusively in receivables. Given the lack of liquidity of the underlying assets, many receivables funds are structured as closed-end funds, although they may provide redemption at intervals.

The packaging of receivables into a fund increases the attractiveness of the asset class to investors. The use of the fund vehicle addresses the scale problem that these assets individually entail for institutional investors; that is, each individual receivable is too small relative to the assets under management by institutional investors. As a result, it is not worth it for these investors to spend resources conducting the necessary due diligence to invest in them. Through the fund, institutional investors delegate such due diligence and also get a diversified portfolio. Those same characteristics—that is, professional management and diversification—are also important for retail investors. However, in practice, the suitability of the product to retail investors would depend on the actual composition of the portfolio. In this regard, many of these funds are offered only to sophisticated investors—that is, institutional investors and high-net-worth individuals.

**While the interest of investors in this type of instruments has increased, there is no consolidated data that can help estimate the actual importance of this source of financing.** Brazil is perhaps the most significant example of the use of SME receivables funds as an important alternative source of financing for SMEs, in particular in the agriculture sector (see box 4.2). Other countries where these funds are being used are Chile, France, Italy, and Peru, which use both reverse factoring and traditional factoring. In Brazil, domestic institutional investors held about 27 percent of the total assets under management (AUM) by these funds (called FIDC) as of 2018. In other countries in Latin America, institutional investors have started also to invest in receivables funds. Such is the case of Chile and, more recently, Peru.

### Box 4.2: Receivables funds in Brazil

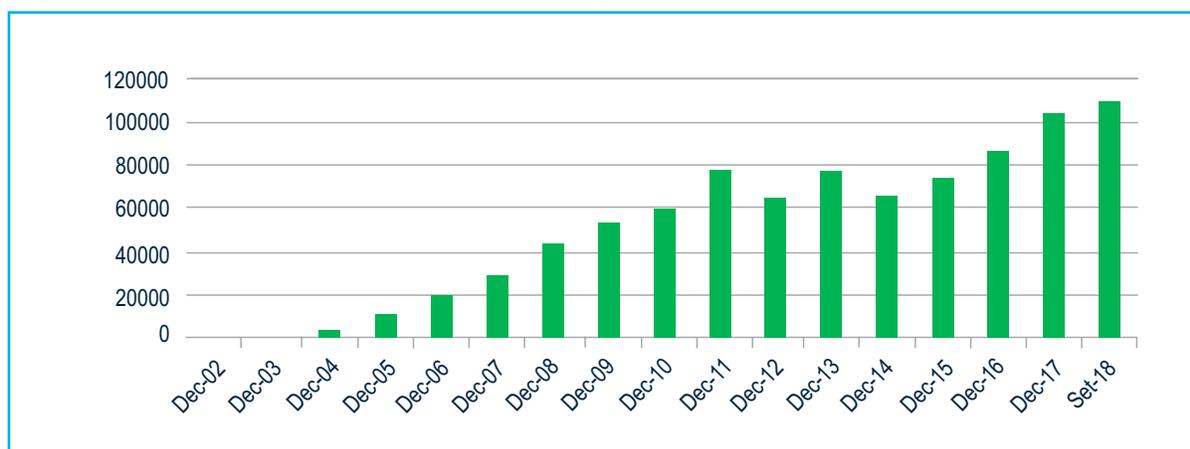
The *fundo de investimento em direitos creditórios* (FIDC) is a financial instrument widely used in the Brazilian credit markets. FIDC is a specific type of fund which invests in receivables (*direitos creditórios*) from different types of issuers. FIDCs in Brazil are regulated by the Comissão de Valores Mobiliários (CVM) Instruction 356 from 2001 (last amendment from 2015).

The FIDCs operate on a traditional factoring basis, through the acquisition of receivables originated from the sales of goods and services. While the selection of the receivables is a responsibility of the fund manager, in practice many fund managers enter into arrangements with third parties who have long-standing relationships with the companies that originate the receivables, including small and medium enterprises (SMEs).

The FIDCs can issue debt instruments, such as senior, mezzanine, and subordinated tranches, and thus, in practice, operate much like securitized instruments. The current regulatory framework does not require a specific level of collateralization, but it does require that the actual level of overcollateralization be explained in the prospectus. FIDCs can be both closed end or open end. The schedule of payments (amortizations, distributions, and so on) must be defined in the prospectus.

The FIDCs have experienced considerable growth, with assets under management reaching about R110 billion as of September 2018.

**Figure B4.2.1: FIDC assets under management, in R billion, 2002–18**



**Table B4.2.1 Assets under management by types of FIDC, in R billions, as of September 2018**

Fund	AUM, in R billions
FIDC Fomento Mercantil	16,812.7
FIDC Financeiro	23,290.5
FIDC Agro, Indústria e Comércio	46,817.1
FIDC Outros	22,766.9
<b>TOTAL</b>	<b>109,687.2</b>

Note: AUM = assets under management; FIDC = fundo de investimento em direitos creditórios.

In general, FIDCs are distributed through a restricted public offering procedure pursuant to CVM Instruction 476, which allows for a streamlined registration procedure on the condition that the securities are offered only to sophisticated investors. As of September of 2018, about 40 percent were held by corporate entities, 27 percent by funds, 7 percent by private investors, and 5 percent by foreign investors.

Source: World Bank elaboration based on information available in the ANBIMA database, as of September 2018.

**Recent deals show how the two types of solutions (electronic marketplaces and instruments) could be linked.** For example, in Italy, Factor@Work, an Italy-based portfolio manager, completed the purchase of €5 million of corporate receivables through a securitization vehicle in which all the assets were originated by Workinvoice, an Italian invoice trading platform. The receivables being securitized were sold by SMEs through Workinvoice's invoice trading platform.

**World Bank experience suggests that the expansion of this solution requires a certain level of development of the capital markets.** Overall, the experiences suggest that this type of fund emerges in countries where the mutual fund industry has already achieved a certain level of development, as they constitute a riskier product than plain vanilla open-end funds because of both their higher credit risk and their more limited liquidity. That said, as indicated earlier, the availability of the underlying assets makes such funds an attractive proposition for EMDEs, where the pipeline of traditional assets (equity and bond issuances) in the capital markets is lacking. As with receivables platforms, it is likely that other issues would need to be tackled, mainly reforms to the requirements for the transfer of receivables and to the investment regulations of institutional investors.

## Loan-based solutions

**As indicated earlier, banks have generally been the main providers of external credit to SMEs, via loans. However, particularly after the crisis, market-based solutions based on lending are starting to appear.** They mainly involve lending platforms and SME loan funds.

**The benefits of lending-based solutions for SME financing are clear.** Depending on the country, such solutions expand lending to companies that have not had access to bank financing, or they provide companies with cheaper and potentially faster alternatives to bank financing. Most important, many such solutions do not require SMEs to put up collateral, particularly real estate.

**From an investor's perspective, loan-based solutions provide access to a new asset class that can offer attractive yields.** Before the emergence of these solutions, loans had been an asset class directly available to banks and specialized lenders only. Investors' access was indirect, mainly through asset-backed securities backed by SME loans. However, in particular in AEs, institutional investors have sought entrance to new asset classes that could help them increase the yield of their portfolios in the current low-interest-rate environment. Nevertheless, as with receivables-based products, these attractive yields are associated with higher credit risk and limited liquidity.

## Lending platforms

**For purposes of this report, SME lending platforms are defined as platforms that consumers and businesses can use to obtain loans directly from a wide range of investors.** The platforms act exclusively as intermediaries. Their role is to prescreen the loans through a low-cost information technology that allows them to collect standardized information from dispersed borrowers to assess the credit risk, but the ultimate decision to invest relies on the investors who bear such credit risk. In most cases the platforms also work as collection services when the debtor defaults.

**Lending platforms have been growing at a very fast pace and currently concentrate the bulk of the volume raised via fintech solutions for fundraising.** From 2013 to 2017 volumes raised in lending platforms grew from \$8.8 billion to \$345.3 billion. For 2017, EMDEs concentrated 93 percent of the total volume raised. Although most of funding has been raised in China, other countries in the top 20 include Korea, Georgia, Poland, India, Latvia, and Brazil (see table 2.3, peer-to-peer). Retail investors have been a key component of the investor base; although at least in AEs there is a trend toward institutionalization of the asset class (that is, increasingly institutional investors buy the loans in "bulk").

**Some governments, including the United Kingdom, have been promoting these platforms.**

The British Business Bank co-invests in some of the platforms as a way to mobilize investors to them (British Business Bank 2019). Other tools also being tested in the United Kingdom include a referral mechanism that requires nine high street banks that deny finance to particular businesses to pass on the information about those businesses to three accredited finance platforms (HM Treasury 2018).

**The business model of lending platforms has evolved considerably, particularly in regard to the role of the platforms in loan selection.** Business models vary. In some cases, the platforms enable investors to choose manually the loans to invest in using information that the platform provides on

each loan, including credit scoring performed by the platform. Other more automated options use a set of parameters to automatically assign investors the loans that meet such parameters. Thus, the latter perform services that are closer to portfolio management.

**Further, some of the platforms are providing “exit” alternatives to investors.** One of the drawbacks of this asset class compared with a traditional securities offering is its lack of liquidity. However, some platforms are mitigating the problems by providing a “screen” whereby investors that need liquidity can offer to sell their positions in some or all the loans that they hold to other investors. The liquidity in this case is not automatic: it requires that another investor be willing to buy such positions (box 4.3).

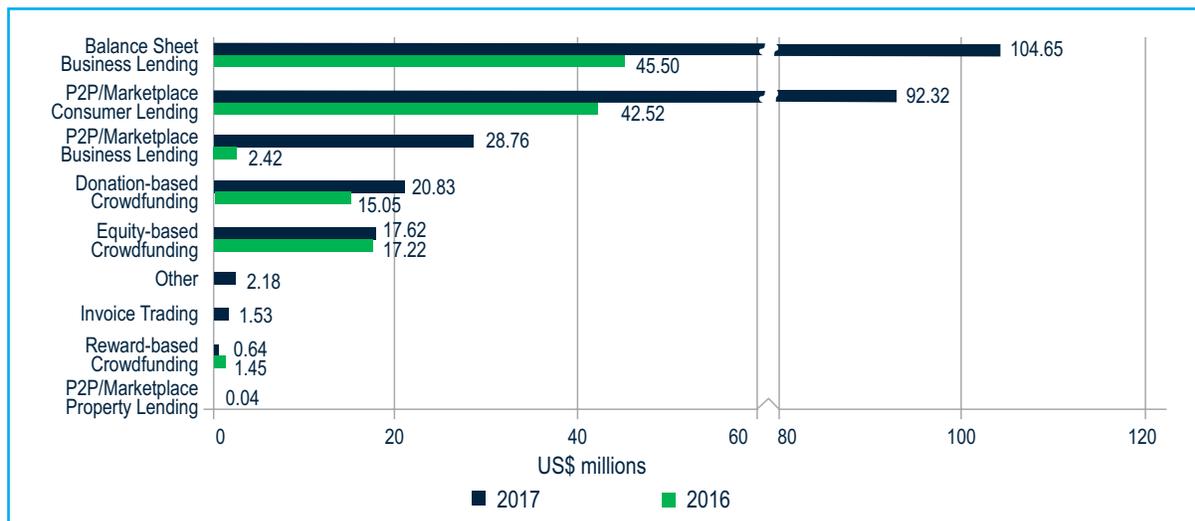
**Box 4.3: Marketplace lending platforms in India**

In India, alternative lending (balance sheet business lending, peer-to-peer [P2P] consumer lending, and P2P business lending) is one of the fastest-growing financial technology segments, increasing from US\$90.4 million in 2016 to US\$220.7 million in 2017 (figure B4.3.1).

Balance sheet business lending—that is, lending through platforms that hold most or all of the loans on their own balance sheet, earn the interest on loans, and bear the credit risk—makes up the bulk of the alternative lending market in India.

But P2P/marketplace lending platforms have also grown considerably. Volumes raised by consumer and business platforms has reached US\$ 110 million.

**Figure B4.3.1 India Total Alternative Finance Market, 2013–17, US\$ millions**



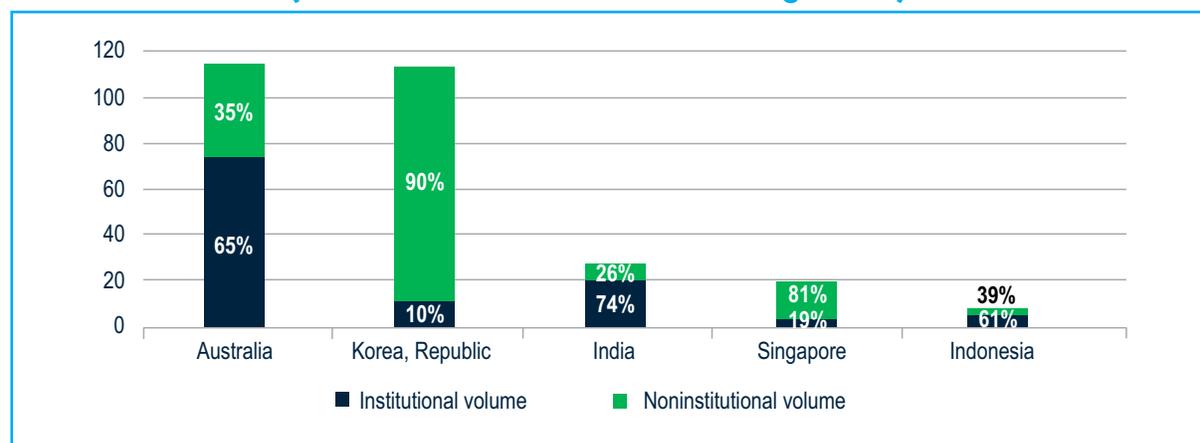
Note: p2p = peer to peer.

In 2017, the Reserve Bank of India (RBI) issued regulations (NBFC-P2P Directions, 2017) to govern the operation of nonbank financial company (NBFC) P2P/marketplace lending platforms. According to the regulations, P2P/marketplace lenders must be companies incorporated in India, with net owned funds of not less than Rs 20 million (about US\$300,000), and they must obtain a certificate of registration from the RBI before offering P2P/marketplace lending services. In addition, the regulations stipulate that NBFC-P2Ps may act only as intermediaries (that is, they may not lend from their own balance sheet nor hold any funds received from lenders or borrowers on their balance sheet) and cap the aggregate lending exposure of lenders and aggregate loans obtained by borrowers at Rs 1 million (about US\$15,000). Both retail and institutional investors are permitted to participate on P2P lending platforms, although investors must be Indian nationals or companies incorporated in India.

Since the introduction of the regulations, 11 companies have registered with the RBI as NBFC-P2Ps, although it is estimated that about 30 P2P lenders were in operation before the regulations were introduced. It is expected, however, that the regulations will facilitate sustainable growth of the market segment.

Overall 74 percent of the total volume of alternative finance (debt-based, equity-based, and noninvestment solutions) in 2017 came from institutional investors (figure B4.3.2).

**Figure B4.3.2 Funding Volume from Institutional Investors, by Key Countries 2017, US\$ billions (Asia-Pacific countries, excluding China)**



Source: World Bank elaboration based on CCAF 2018a; Perkins 2018; Reserve Bank of India 2017; and Reserve Bank of India list of NBFC-P2Ps registered with the RBI, as of March 27, 2019.

**Overall, World Bank experience in the field and the empirical research conducted indicate that this solution could be viable in many EMDEs.** As with invoice platforms, the empirical research conducted suggests that growth is not associated with the wealth of countries. Further, no correlation was found with stock market capitalization, although the research did find a correlation with credit penetration and respect for the rule of law. That said, experience indicates that other issues might need to be tackled, including the need for an appropriate legal and regulatory framework for lending platforms and potentially also reforms to the investment regime of institutional investors.

### SME loan funds

**SME loan funds are credit funds that invest in SME loans.** There are two main types of SME loan funds: participating and originating funds.<sup>32</sup>

**Loan participating funds are allowed to acquire and restructure partially or entirely existing loans originated by banks and other institutions,** obtaining the loans either directly from the lender or on secondary markets where such loans are traded. However, according to their investment strategy they are not allowed to grant loans. Thus, they are closer to an SME loan securitization and, arguably, an indirect mechanism for SME financing.

**In contrast, loan originating funds originate SME loans themselves instead of purchasing them** from a bank, thus the fund manager is involved in selecting, analyzing, and monitoring individual investments. Different from loan participating funds, specialized funds typically cater to SMEs that are not able to access bank financing or may have financing needs that are greater than what they can access through banks. Here the fund manager plays a critical role in originating and monitoring the asset portfolio; thus the manager must have specialized expertise (in, for example, credit risk analysis), as well as ability to service the underlying assets. These funds are a true direct mechanism for SME financing.

**For most AEs, SME loan funds are a relatively new asset class and thus still of limited size, but interest in them has been growing** (box 4.4). In the United States a special type of SME loan fund, the business development company, was created in the 1980s precisely to assist in SME financing. In Europe the phenomenon of SME loan funds is more

recent and in some cases has required changes to laws and regulations. Interest for this type of fund was triggered by the global financial crisis and the subsequent bank retrenchment in SME lending. Currently, many European countries allow this type of fund, but they are also available in other jurisdictions, such as Australia; Canada; Hong Kong SAR; China; and Singapore. In general, loan participating funds are more common. Further, in the locations where loan originating funds are permitted, a more restrictive regulatory framework has been put in place, including in regard to the type of investors that can be targeted (only professionals, for example).<sup>34</sup>

**These funds exhibit a higher risk profile than more traditional mutual funds do.** Because of the lack of liquidity of the underlying assets, they are usually structured as close-end funds, although they may provide redemption at intervals. Many are also leveraged. As indicated previously, in many countries these funds are available only to sophisticated investors.

#### Box 4.4: Selected experiences with SME loan funds

##### United States

Business development companies (BDCs) are a category of closed-end investment company under the Investment Company Act of 1940. BDCs came into being in 1980 as part of a congressional effort to jumpstart investment in small businesses, which triggered the enactment of the Small Business Investment Incentive Act of 1980 (the 1980 amendments).

BDCs focus on making loans to private small and mid-sized companies. BDCs are attractive to investors because of the yields they offer, which are materially above yields offered by traditional closed-end funds. BDCs are also attractive to investors wishing to diversify their interest rate exposure. In addition to funding, BDCs are required to offer managerial assistance to their borrowers and many times may attend the board meetings for their borrowers or have outright seats on the board. The majority of BDCs outsource this function to external managers.

BDCs with access to an origination platform are at the forefront of the shift away from banks. The closer relationship helps reduce credit risk for the BDC and can generate additional fee income—on top of the coupon amount—as well as a potential discount on the loan. Banks have not completely abandoned this market segment, though. They often finance the BDCs, which in turn lend to small and mid-sized private companies. This means BDCs are able to borrow from banks at relatively low costs—especially in the case of BDCs with investment-grade credit ratings—while lending at higher rates.

BDCs without an origination platform purchase their assets either in the secondary market or from other lenders. Being further from the point of origination reduces the amount of fee income as well as any potential loan discounts.

BDCs usually elect to be treated as regulated investment companies, meaning they bypass corporate income taxes as long as they distribute at least 90 percent of their taxable annual net income to shareholders.

Most BDCs are publicly listed and traded companies accessible to both retail and institutional investors. BDCs typically charge two types of performance fees, based on capital gains and on income. BDCs file annual and quarterly reports with the U.S. Securities and Exchange Commission that include a detailed schedule of investments and a discussion of the results. Some BDCs also host quarterly conference calls, file 8-Ks, and issue intraquarter press releases or publish regular newsletters with updates on industry trends and the performance of their portfolio. Certain BDCs are subject to less stringent disclosure and audit requirements under the JOBS Act.

## France

In 2013 the French government unveiled a new initiative to kickstart lending for small and medium enterprises (SMEs) via loan originating funds (*fonds de prêts à l'économie*), with the backing of the NOVO Fund. The NOVO fund was designed by the Caisse des Dépôts (CDC) with the support of the Fédération Française des Sociétés d'Assurance. It is a €1 billion fund, in which 18 insurance companies and three pension funds participate as investors. The target of the fund was midsize companies with an average of €400 million in sales. The average loan was €30 million. The initial target was for 30 to 40 projects to be funded over 10 years. As of 2016 all the money had been lent to 45 small and midsize companies. As a result, an additional tranche of €405 million was opened in 2016, backed by most of the initial investors.

The NOVI Fund was launched by CDC in 2015, targeting smaller companies: companies with sales in the range of €30 million to €200 million. NOVI received backing from 23 institutional investors committing an initial €535 million. The investors included 19 insurance companies as well a retirement schemes, alongside CDC. The fund offered financing between €3 million to €30 million to target companies. NOVI distributes annual revenues, bringing yield to institutional investors from interest payments received on loans and dividends on equity investment.

Similar funds have followed suit. For example, in 2016 the PME Emplois Durables (SME Sustainable Jobs) Fund was launched. This €210 million fund is sponsored by the insurers and the social protection groups AG2R La Mondiale and Klesia, with the support of the French Employers Movement (MEDEF) and state backing. Similar to NOVI, PME also targets small companies financing through a mix of debt and equity, but PME Emplois Durables has a wider risk spectrum. PME targets smaller companies (from 15 to 500 employees) through average investments of €2 million (in a range of €250,000 to €5 million). At the other end of the risk spectrum, PME will also invest in a fixed-income fund of listed bonds, to ensure liquidity.

A key characteristic of these funds is that they were designed and overseen by a group of institutional investors who went after the asset managers for mandates, instead of having funds designed by asset managers who then would go after investors.

Certain legal reforms were needed to enable this solution to take off. First, until recently lending was an activity reserved for banks and credit institutions, as per articles 511-5 of the French Monetary and Financial Code. Second, most institutional investors were not allowed to own such SME loans, because French regulations prohibited them from investing in unrated bonds or fixed-income securities. These obstacles were addressed by Decree 2013-717, which loosened such restrictions to open the way for new SME loan funds, labeled "funds for loans supporting the economy." This decree also changed the French Insurance Code to allow insurers to lend money to small companies regardless of credit rating and to allocate up to 5 percent of their assets to such vehicles. This decree was followed by another one, the Decree of 2014, which expanded the type of assets in which these funds could invest to include holding companies, infrastructure projects, real estate development, or even credit enterprise commercial paper. Investment rules were also relaxed so that a range of investors could support these funds, including mutual companies, social protection groups and their satellites, welfare institutions, and complementary retirement institutions.

Source: World Bank elaboration with information from Morrison & Foerster LLP 2018 and IOSCO 2017 for the United States, and Pougin 2014, 2015, 2016, and Rust 2016 for France.

**Overall, World Bank experience suggests that this solution requires a certain level of development of the capital markets.** As with receivables funds, the emergence of SME loan funds seems to require that the mutual fund industry achieve a certain level of development. Furthermore, it requires a higher level of sophistication of fund managers, or at least fund managers with a skill set similar to that of credit officers. Alternatively, it would require that fund managers establish arrangements with third parties that could conduct the due diligence of SME businesses while retaining sufficient capacity to oversee these third-party providers. Beyond that, other issues would likely need to be tackled, in particular the fact that in many cases the regulations for mutual funds have not considered loans as an eligible asset class. In addition, a robust regulation for this type of funds would be needed, which among others should tackle issues such as leverage. Similar to other solutions, the investment regulations of institutional investors might also need to be reviewed.

## Bond-based solutions

**In general, companies that want to raise debt financing from the public via bonds are subject to a series of disclosure obligations aimed at eliminating the information asymmetries between investors and the companies that seek to raise funding from them.** Because investors bear the risk of their investment, the role of securities markets regulation is to ensure that they have sufficient information to assess the risks of the companies they invest in. They do so by imposing disclosure obligations on such companies that mainly relate to the submission of a prospectus at the moment of the offering and of certain information on a periodic and ongoing basis, including financial statements and material events. In tandem, the intervention of the regulator is required in the form of an ex ante authorization of the offering materials (mainly the prospectus) along with ongoing monitoring, both aimed at ensuring that companies provide complete, accurate, and timely information to investors. Finally, through their enforcement powers, securities regulators seek to ensure that companies comply with such obligations.

**In practice, the imposition of such disclosure and reporting obligations has had consequences for SMEs' use of the public markets.** Disclosure and reporting requirements entail costs to companies, costs that are justified by the need to ensure that investors have sufficient information to make informed decisions. In practice, those costs naturally establish a cut-off size for issuances as well as for companies that can access the public markets. In general these requirements and the costs associated with them leave the majority of SMEs out of the public markets because most SMEs are not prepared to provide the information needed, or if they had the information, they could not meet the costs or find them to be too high relative to the small size of their issuances.

**Increasingly countries are looking at mechanisms to ease SME access to the market.** On one hand, countries are reviewing the “space” for private offerings and linking trading platforms to them. On the other hand, they are also reviewing the requirements for public offerings and making adjustments to them, as will be explained.

## Minibonds

**In this report minibonds refer to debt securities issued by SMEs in the capital markets.** This definition is intentionally broad, to cover different ways in which these minibonds can be offered to investors, from pure private offers to hybrid regimes, as further discussed in this section.

**In both AEs and EMDEs, companies have been able to raise funding on a limited basis via debt issuances that are placed through private offerings.** Each country has its own definition of what constitutes a private offering. In general, factors such as the amount raised and the number and the type of investors that are targeted are used in many countries to delimitate a public offering versus a private offering. Thus, a private offering should not exceed a maximum amount of money and/or a maximum number of retail investors as defined in the legislation or should target only sophisticated investors.

**Private offerings can ease SME access to the capital markets.** The key benefit of private offerings/placements for SMEs is that they enable the SMEs to raise funding from investors without triggering the requirements of a public offering—thus reducing costs and time to come to market because in most countries a private offering does not trigger disclosure requirements nor a review by the securities regulator. However, the issuance needs to be confined to the conditions for the private offering.

**From an investor perspective, private issuance represents an attractive instrument that can offer yield.** In general, bonds offered privately usually entail higher interest rates, including an illiquidity premium. In addition, they provide asset diversification and long-term asset matching to institutional investors.

**In practice, large private placement markets exist mainly in AEs and have catered mainly to larger companies.** The United States has the largest private market, catering to both domestic and foreign companies. A key feature of the U.S. private market is the high level of standardization that it has achieved, compared with other private placement markets. There are also large private markets in Germany (the *Schuldschein* market) and more recently the Euro PPP in France. Overall, the companies that use these markets are medium to large in size, given that this is essentially a market of institutional investors.<sup>35</sup> Some private offerings take place in EMDEs, but, except for China, large private markets anchored in the participation of institutional investors and with standardized information have not developed in EMDEs.

**However, different developments are affecting the private markets. One such development is the use of electronic platforms to connect companies and investors in the private placement space.** These platforms are increasing the visibility of private deals and streamlining the investment and closing processes for all parties. The platforms are not exclusive for the placement of bonds; rather in many cases they facilitate all types of private

offerings (including private offerings of equity and mutual funds). Examples of this type of platforms can be found in AEs.<sup>36</sup>

**In addition, in some countries, SME bond platforms have been created to provide an organized secondary market for SME issuances (minibonds) that have been privately placed.** Examples of this type of market can be found in Italy and Spain.<sup>37</sup> At least in the case of Italy changes to the legal and regulatory framework were necessary to facilitate the issuance of minibonds by SMEs (see box 4.5). In both cases, the platforms are open only to professional investors and as a result can keep lower disclosure requirements than those imposed in the official markets. In both cases the platforms show a steady increase in the number of companies that have registered issuances, but their impact is still limited. The evidence so far indicates that these offerings entail higher credit risk than those in the main markets, and their liquidity is limited. Few EMDEs have SME bond trading platforms associated with bonds issued privately. One country that does is Korea, which in 2012 created the Qualified Institutional Buyer system to expand opportunities for SMEs; however, its impact is still limited (IOSCO 2015).

**The other route taken by countries to ease the direct access to market for SMEs is the creation of proportionate regimes within the public offering space. These regimes make it easier for SMEs to issue bonds (minibonds) that can be marketed to retail investors.** Here also the requirements are scaled down to make them proportionate to the nature (SME) of the company; although the requirements are greater than those in markets that are open only to professional investors. The reductions vary from country to country but usually include fewer years of financial information in the prospectus and less frequent periodic reporting. This type of regime exists, for example, in the United States, for growth companies (for both equity and debt) and in Argentina and Peru for SMEs (for both equity and debt). In addition, through the recent reform to the Prospectus Directive (and the Market Abuse Directive) the EU paved the way for a more

proportionate regime for the public offering of securities (both equity and debt) by SMEs across all Europe.

**Likewise, some countries are developing specialized secondary markets in which these minibonds can be traded.** Examples of specialized SME bond platforms open to retail investors exist, for example, in France, Germany, Peru, and the United Kingdom.<sup>38</sup> Although these experiences are recent, there are already some lessons learned from recent failures, in particular from the demise of the bondm segment of the Stuttgart Stock Exchange dedicated to minibonds.<sup>39</sup> While many factors played a role, it is said that the branding of the bondm segment using the term *mittlestand*, which has a very positive connotation in Germany, may have misled investors regarding the risk involved in these issuances. Thus, one of the lessons relates to the need to ensure that retail investors understand well the nature of these offerings, and in particular that as an asset class minibonds have higher credit risk than bonds issued by companies in the main market, even though the return might be more attractive. Further, even in cases in which a platform has been set up, these instruments tend to be illiquid. Thus, it is critical that offering documents provide a clear and truthful view of the risks associated with these investments.

**It is still early to assess the impact of minibond regimes and, in particular, how much the reduction of requirements will allow smaller companies to come to market.** On the positive side, the evidence so far suggests that the issuances are smaller than the issuances that take place in the main markets. This, in turn, suggests that smaller SMEs might be able to come to market. However, overall access still seems to be concentrated in more formal and organized SMEs, given that there are disclosure requirements associated with these issuances. Finally, the volumes issued in these platforms are still limited (see box 4.5). The low volumes could be the result of several factors, from challenges related to the pipeline of quality SMEs to challenges related to the risk-return appetite of institutional investors, as will be discussed later in this report.

**This solution seems to be most relevant for EMDEs where a corporate bond market already exists.** Minibonds require the same type of infrastructure that is needed for securities offerings in the main market, from a trading platform to securities market intermediaries that can support the issuances, including brokers and information service providers (auditors and credit rating agencies). In addition, as previously explained, minibonds have a higher risk profile than bonds issued by companies listed on the main market; therefore, they require a certain level of sophistication of the investors. Depending on how the regulations for minibonds are set up, changes in the investment regulations for institutional investors would be needed to allow them to invest in securities of private offerings. Finally, other factors would play a role in the scalability of the instrument, including, for example, the availability of programs to prepare companies to participate.

### **SME bond funds**

**SME bond funds are specialized funds that invest in bonds issued by SMEs. Like other credit funds,** they are usually structured as closed-end funds, sometimes allowing redemptions at intervals. In practice, many of these funds are available only to sophisticated investors.

**The main benefit of SME bond funds for SME financing is the possibility to increase the attractiveness of SME issuances to both institutional and retail investors.** For institutional investors, the use of a fund addresses the scale problem that SME issuances entail for them; that is, each individual SME issuance is too small relative to the assets under management by institutional investors. As a result, it is not worth it for them to spend resources conducting the necessary due diligence to invest in the SMEs. Through the fund, institutional investors delegate such due diligence and obtain a diversified portfolio. The professional management and diversification are also important for retail investors.

**SME bond funds usually cater to larger SMEs that make suitable candidates for bond issuance.** Although this SME segment is also the most bankable, bond funds could potentially offer this subset of SMEs longer-term and cheaper financing than that available through bank loans. In addition, the more the larger SMEs can access funding through bonds, the more the banks would be encouraged to move down market and increase funding to smaller SMEs.

**The use of SME bond funds has increased post-crisis.** In particular, bond funds are being used

across many countries in Europe. For example, in Italy a number of funds have been established looking to invest in Italian minibonds. Experiences with this type of fund are relatively new in EMDEs but can be seen in countries such as Chile and Peru.

**In principle, SME bond funds are more relevant for EMDEs where corporate bond markets already exhibit certain level of development.** All the infrastructure necessary for minibonds is also needed to develop these solutions. In addition, SME bond funds require that the mutual fund industry has already achieved some level of development.

## Box 4.5: Selected experiences with SME bond offerings

### Italy

Italy created a specific framework to allow certain small and medium enterprises (SMEs) to issue bonds under streamlined disclosure requirements. The framework was triggered by the financial crisis, whereby Italy saw a retrenchment by banks from lending activities. Thus in 2012, through the "Development Decree," Italy made important changes to its legal framework to allow unlisted companies to access the capital markets. The framework applies to unlisted Italian companies other than banks above a certain size (at least 10 employees and an annual turnover and/or assets of more than €2 million). Tax benefits apply to both the issuer and the investors.

In tandem, other reforms were approved to incentive investors to take up the bonds.

- Banks were allowed to structure covered bonds using minibonds.
- The decree clarified that corporate bonds and other debt instruments issued in the context of securitization transactions are eligible in terms of assets that (a) can be used by insurance companies as technical reserves and (b) are in line with the investment limits set out for pension funds, even if they are not listed.
- Insurance companies may invest up to 3 percent of their reserves in minibonds issued by nonlisted SMEs, in units of funds that invest primarily in those assets, and in securities issued by securitization companies (even without ratings). Funds that invest in minibonds may be beneficiaries of the guarantees provided by the SME central fund. The fund may also give direct guarantees. (The guarantee may apply to both individual transactions to underwrite bonds or similar securities and for portfolios of transactions.)

Minibonds may be traded in the ExtraMOT Pro market, a segment of the Borsa Italiana active since 2013 and dedicated to the listing of bonds, commercial paper, and project bonds.

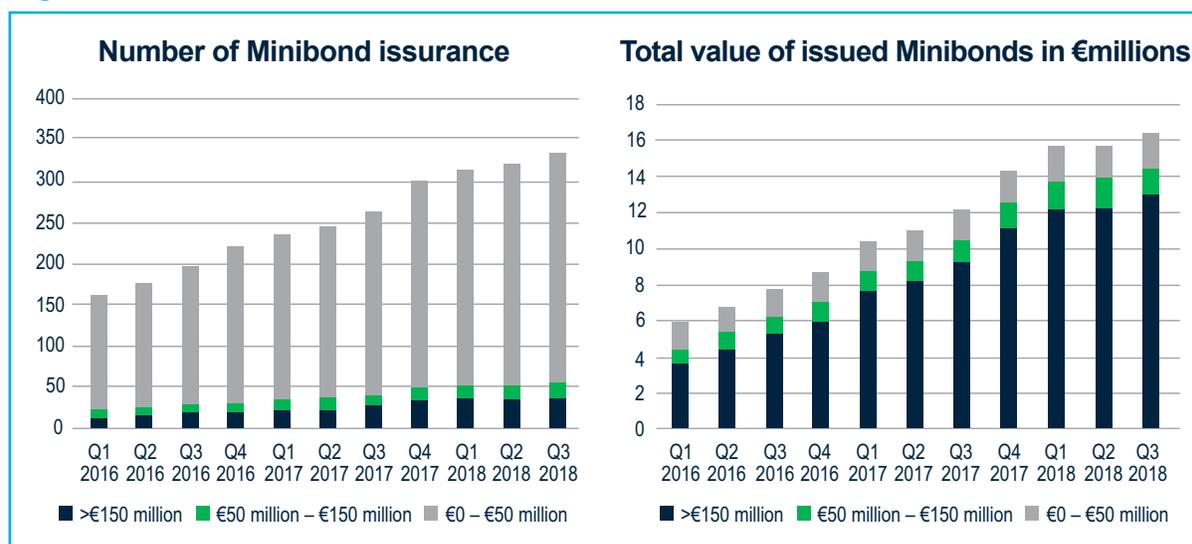
The listing is flexible both in terms of admission and disclosure requirements. No formal listing prospectus is required, but an admission document must be prepared. Some other minimum requirements apply, mainly that the issuer must have prepared financial statements for two financial years, the latter being fully audited. Post-issue obligations include the publication of (a) audited financial statements not later than six months after the conclusion of the fiscal year, (b) any information on the issuer that may have impact on the price or value, (c) any changes in the terms and conditions of the instrument or in the rights of bond holders, and (d) technical information concerning the minibonds (information on the calculation of interest and any early redemption of the securities).

Some of the first issues were not really minibonds as they were issued by quite large businesses, especially those owned by private equity funds. Some smaller companies began to issue in sizes of €2 million–€20 million. However, few institutional investors were prepared to analyze these small firms. Thus, initiatives to develop funds to invest in minibonds also started to appear.

As of September 30, 2018, there were 334 issued minibonds for a total value of approximately €16.4 billion. In the Italian minibond market:

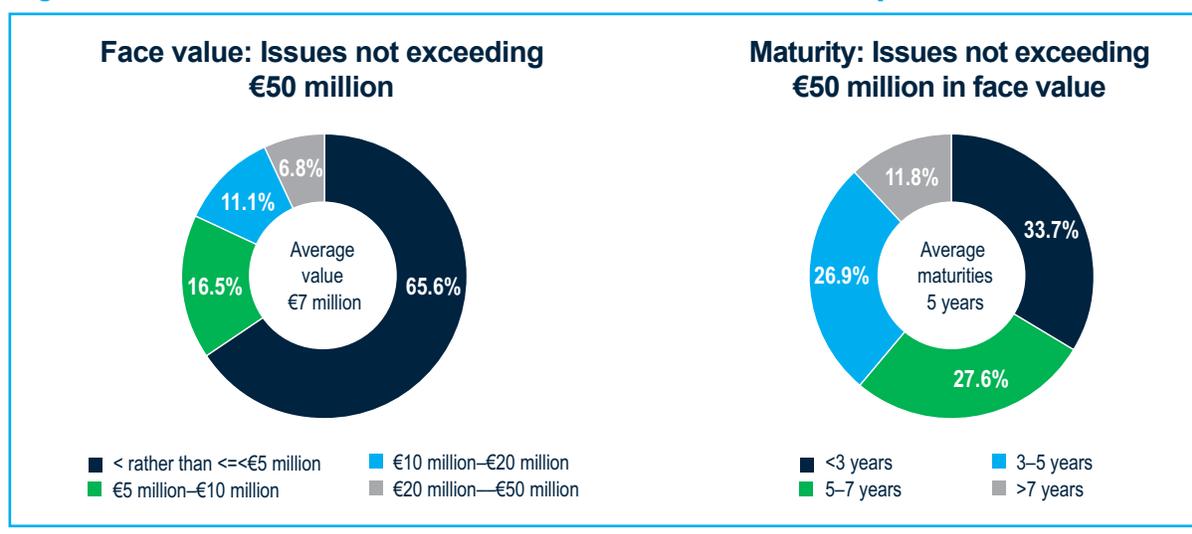
- Issues with face value below €50 million (279) represented approximately 11 percent of the total value issue.
- Issues ranging from €50 million–€150 million (17) represented 9 percent of the total.
- Most of the total value issues originated from a handful (38) of issues characterized by large face values (more than €150 million each).

**Figure B4.5.1: Italian minibond market, 2016–18**



For issues lower than €50 million, the key characteristics are average face value of €7 million, with an average coupon of 5.11 percent and average maturity of five years. The issuer average revenues were of approximately €103.1 million.

**Figure B4.5.2: Italian minibond characteristics, end of September 2018**



## Peru

In 2012 the Superintendencia del Mercado de Valores (Securities Commission) created a proportionate regime for public offering by SMEs, which are defined as companies with a maximum S/.200 million (US\$70 million) in average annual revenues for the past three years. Companies that wish to use this regime are required to submit a prospectus and a credit rating at the time of the offering (the credit rating is not required if the offer is addressed exclusively to professional investors) and semi-annual reports and material events on an ongoing basis. This proportionate regime is linked to a specialized platform, the Mercado Alternativo de Valores (MAV) developed by the exchange, where these bonds can trade.

As of November 2018, 15 companies had bond offerings listed in the MAV, of which 12 had issued short-term paper and bonds for an amount of US\$86.7 million in 98 issuances. Although still modest, this amount is already important, when one considers the overall size of the market. One of the key reasons for the relatively limited number of companies in the MAV is the time that has been needed to prepare the companies to come to the market so that they can comply with all the required information previously described. It is estimated that between two and three years are necessary to prepare the companies.

The initial issuances in MAV were acquired by retail investors, and there was no institutional investor appetite for these issuances. Thus, in 2013 the HMC Capital Fund was created to trigger institutional investors' interest in these companies by pooling several small bond issues together. The fund was supported by an International Finance Corporation investment, with plans to invest in local small and mid-size companies with local credit ratings of between AA- and BBB+. Its strategy was to invest mainly, but not exclusively, in companies issuing bonds through the MAV. The fund was expected to have up to US\$100 million in capital, with about 15 investments over three years with an average size of US\$7 million per investment. In practice, it has been difficult for the fund to gain traction because of the time it has taken for companies to come to market.

Source: World Bank elaboration based on data from the MiniBond.it website and information from Latham & Watkins 2014 for Italy and the website of the Superintendencia del Mercado de Valores for Peru.

## Equity solutions

**Until recently, capital markets participated in SME financing mainly through private markets.**

As indicated earlier in this report, VC has been a key mechanism for equity financing of innovative firms. However, while in AEs this is a mature industry, in EMDEs VC is at an earlier stage of development.

**The public markets, on the other hand, have not been accessible to SMEs.** Companies that want to raise equity financing from the public are subject to not only disclosure requirements but also corporate governance obligations, both aimed at protecting investors. Disclosure requirements have a similar role in equity than in debt—that is, ensuring that investors have all the necessary information to make their investment decisions. In addition, given the different position that equity investors have compared with debt investors, corporate governance obligations are imposed on the companies seeking equity investors to ensure that the company works to the benefit of all its shareholders.

**In practice, the imposition of disclosure and governance requirements has had consequences**

**for SMEs' use of the public equity markets.**

Governance requirements constitute a tremendous challenge for SMEs. Most SMEs are family owned and lack the governance that outside investors require, from a board with independent directors who are able to exercise effective oversight of management to a management structure that is supported with robust internal policies and procedures across all activities. Furthermore, because they are often family owned, many SMEs are reluctant to open their capital to outside shareholders and be accountable in their decisions to such shareholders.

**That said, increasingly countries are looking at mechanisms to ease SME access to equity financing via the capital markets.**

In general, two types of developments are taking place. First, countries are revisiting the definitions of public and private offerings in an effort to reduce the requirements for companies to access the capital markets under specific conditions. Equity crowdfunding is a key example of such adjustments. Second, countries are developing specialized SME equity exchanges, with the objective of fostering the liquidity of SME equity issuances.

## Venture capital and private equity

**Private equity is the umbrella term used to refer to the strategy of investing in private companies (or making public companies private).** PE is an asset class in which investors purchase the illiquid equity (or equity-like) securities of operating companies. This equity is not publicly traded but instead is held in private hands. In exchange for their capital, PE firms take ownership stakes that range from a concentrated minority to majority ownership in a company. PE investors typically hold these securities for a period of three to seven years with the expectation of generating attractive risk-adjusted financial returns upon exiting the investment.

**PE investment encompasses various stages of investment,** such as venture capital in early-stage companies, growth equity in more established companies looking for expansion capital, or buyouts in the latter stages of a company's growth. The skill set required to invest in these different stages varies, resulting in different team compositions and ways to assess sound investments and to create value in a portfolio.

**In EMDEs, private equity investments in early-stage companies or SMEs take place primarily through the VC and growth equity strategies.**<sup>40</sup> VC firms are known for investing in early-stage companies that are typically riskier in nature than the investments made by their PE counterparts. VC firms usually invest in companies in sectors that are related to technology or innovation, although they may also back businesses in other sectors. In AEs, VCs also source ideas and build new companies from proprietary networks of proven entrepreneurs. This seeding of investment ideas into the market is less common in EMDEs but will likely become more common as these markets become more robust. Growth equity firms, on the other hand, usually make minority investments in more established companies that are looking to expand their business or move into new markets. The section that follows will use the term private equity and venture capital (PE/VC) broadly to refer to the umbrella strategy of investing in private companies, and, in particular, SMEs in EMDEs.

**PE and VC funds usually employ a partnership structure.** A fund management company, or general partner (GP), raises capital from a limited number of qualified investors that become limited partners (LPs) of a fund. Typically, LPs consist of pension funds, insurance companies, foundations, endowments, high-net-worth individuals, sovereign wealth funds, and DFIs. The fund manager receives two types of compensation from the investors. First, the fund charges a management fee—typically 2 percent of the capital in the fund—to cover operating expenses. Additionally, the GP receives a share of the gains generated on its investments—typically 20 percent of profits—which is known as carried interest. Carried interest seeks to align the incentives of the GP with those of the LP investors in the fund.

**PE and VC funds both provide capital and bring knowledge and know-how to the companies in which they invest.** Apart from providing financing, PE and VC funds typically take a “capital plus” approach, in that they help the companies in their portfolios to enhance management capacity, improve market focus and presence, strengthen governance, and manage growth. In fact, it is customary that the contracts include provisions whereby the PE/VC fund takes seats on the company's board. Because of this capital plus approach, PE/VC firms are widely linked to job creation. Still, as will be explained later in this report, a paradox is at play because companies that lack access to these types of skills encounter more difficulties in attracting PE and VC financing in the first place.

**While interest in this assets class by domestic investors in EMDEs is growing, their investments are still limited.** As mentioned earlier in this report, in both Africa and Latin America domestic pension funds have started to invest in PE/VC, although in most cases, these investments are still limited. This is particularly the case in Africa, where lack of familiarity with the asset class and in some cases regulatory restrictions curtail PE/VC investments (see box 4.6). In other EMDEs, particularly in Latin America, local institutional investors' appetite for PE/VC investment has varied across EMDES and over time. In Brazil,

for example, local pension funds and DFIs had long played a key role in private capital markets, but after facing sharp declines in investment returns during the 2008 recession, they became less active in the private capital markets (EMPEA 2018a). The current low-interest-rate environment is nevertheless prompting funds to free up capital for new commitments to alternative investments. In Mexico, where pension funds (AFORES) are permitted to invest only in publicly offered securities, the introduction of listed investment vehicles to facilitate investment in private equity and other alternative assets contributed to considerable growth in fundraising for Mexico-dedicated PE/VC vehicles.<sup>41</sup>

**In some EMDEs, governments have established programs to invest in VC,** in an

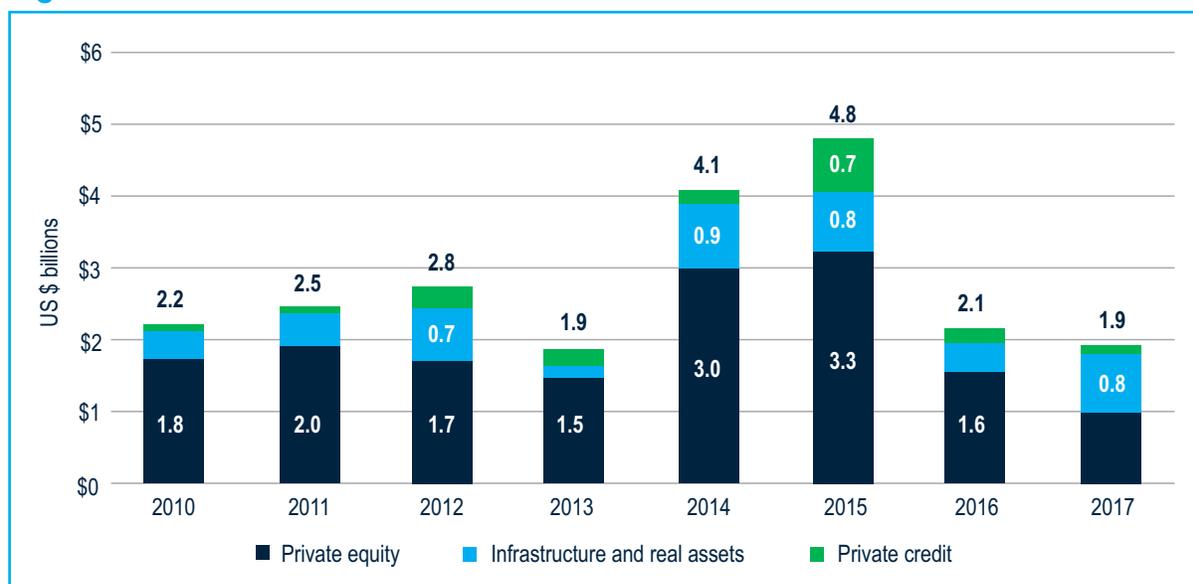
effort to kickstart the industry, develop domestic fund managers, and mobilize other investors. These programs have used different modalities, including direct investments and co-investments via funds and funds of funds. For many EMDEs, these programs are relatively new and thus the track record is still limited.

**Given the limited number of local institutional investors that can commit large amounts of capital to PE/VC in EMDEs, DFIs have tended to dominate the LP landscape.** Impact investors also regularly participate as LPs in EMDEs' funds, specifically in funds with social aims. This impact-investing segment includes philanthropic institutions, corporate and family foundations, and high-net-worth individuals. Most of this investment takes place via off-shore PE/VC funds.

### Box 4.6: Mobilizing institutional investors for SME finance in Africa: The use of private equity/venture capital funds

Over the past two decades, private equity (PE) and venture capital (VC) have become an important source of financing for small and medium enterprises (SMEs) in Africa. In 1997, there were 12 PE funds in Africa, focusing mainly on the South African market. By 2016, there were 140 PE funds targeting Africa, with an investment footprint across the continent (figure B4.6.1).

**Figure B4.6.1: Investments in African SMEs, 2010–17**



Source: EMPEA. Data as of December 31, 2017.

Note: Unless otherwise specified, exhibits include Sub-Saharan Africa and North Africa. In other EMPEA reports and data releases, "North Africa" may be included in Middle East and North Africa regional totals.

Development Finance Institutions (DFIs), such as the International Finance Corporation, the United Kingdom's CDC Group and the African Development Bank, have traditionally been the main source of institutional capital for Africa-focused PE/VC funds; however, North American and European pension funds, endowments, and asset managers have also become increasingly interested in private equity investments in Africa. Although recent regulatory reforms have sought to encourage greater participation of domestic institutional investors in PE, in particular pension funds, few African pension funds—with the exception of the Government Employees Pension Fund in South Africa—have made significant allocations to PE/VC to date because of a complex set of issues, including lack of familiarity with the asset class.

Recent dampened economic growth and exchange rate volatility in Africa's largest economies led to fundraising decline in 2016 and 2017. However, according to the African Private Equity and Venture Capital Association (AVCA) 2018 limited partner (LP) survey, Africa remains an attractive investment proposition over the long term. Specifically, the AVCA survey noted that 53 percent of LPs plan to increase their PE allocation to Africa over the next three years. Growth equity, venture capital, and direct investing were indicated as the preferred strategies for Africa PE investments, whereas financial services, consumer goods, and agribusiness were cited as key sectors of interest. That LPs highlighted financial services as a sector of interest suggests that expanding financing for smaller, early-stage SMEs is likely to be through indirect investment in SME financiers, particularly because direct PE investment in African firms has traditionally targeted midsize to large corporations. The emergence of tech-enabled start-ups with high growth potential, particularly in Kenya and Nigeria, has nevertheless stimulated the development of VC funds focused on smaller, early-stage ventures.

Even as PE/VC funds have become an important vehicle for mobilizing institutional investment for SMEs in Africa, challenges remain. For example, exit opportunities via initial public offerings are severely limited, forcing the development of secondary PE markets, in which exits are made via strategic sales to other PE firms or financial buyers. Additional challenges highlighted by general partners in the AVCA survey include a constrained fundraising environment, scarcity of talent for general partners or portfolio companies, macroeconomic risks, and limited investable opportunities. For limited partners, the main constraints included currency risk, a limited number of established general partners, political risks, relatively long holding periods for portfolio companies, and the small scale of investment opportunities.

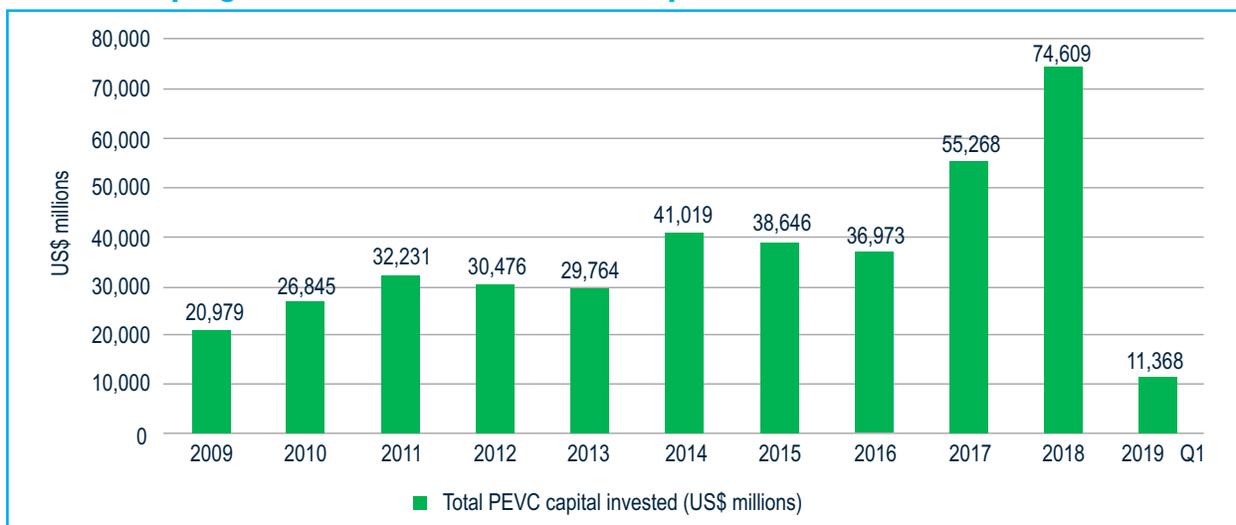
Source: World Bank elaboration based on information from AVCA 2016, 2018; EMPEA 2015, 2018b.

**Overall, the global PE/VC industries in EMDEs remain small.** Emerging Market Private Equity Association (EMPEA) data show that total PE/VC investment in EMDEs amounted to approximately \$75 billion in about 2,500 deals in 2018 (figure 4.1).<sup>42</sup> However, the market for SME PE and VC in many EMDEs represents a small fraction of the overall quantity of fund investment. Figure 4.2 shows that aggregate investment in ticket sizes \$100,000–\$3 million represents about 1 percent of total PE/VC investments, and is below 20 percent in the number of deals.

**Overall, the vast majority of PE firms target larger or more established enterprises. Several**

**reasons can be identified for this phenomenon.** First, PE is a relatively new financing source in many EMDEs, and investors do not lack opportunities to invest in large and established companies with lower risk profiles. Second, investing in SMEs is more challenging than investing in more established companies because of higher execution risk, elevated transaction costs, and greater information barriers. Finally, although the pool of investment management talent in these markets is growing, there is a more limited number of professionals capable of operating PE funds. This means that the overall pool of PE firms remains shallow relative to the potential size of these markets.

**Figure 4.1: Total private equity/venture capital investment in emerging markets and developing economies, 2009–19, first quarter**



Source: EMPEA (Emerging Markets Private Equity Association).

Note: Per EMPEA methodology, this figure includes all African countries, including North Africa; Asia Pacific, excluding Australia, Japan, and New Zealand and including Afghanistan and Pakistan; European Union accession countries (2004); Southeastern Europe (excluding Greece) and Turkey, as well as Russia and other Commonwealth of Independent States countries; Mexico, Central and South America, and the Caribbean (excluding Puerto Rico and other overseas territories and departments); Gulf Cooperation Council countries, Iran, Iraq, Jordan, Lebanon, Palestinian Territories, Syria, and Yemen. PEVC = private equity/venture capital.

**Figure 4.2: Percentage of private equity/venture capital investment in SMEs in emerging markets and development economies (ticket size = \$100,000–\$3 million)**



Source: EMPEA (Emerging Markets Private Equity Association).

Note: Per EMPEA methodology, this figure includes all African countries, including North Africa; Asia Pacific, excluding Australia, Japan, and New Zealand and including Afghanistan and Pakistan; European Union accession countries (2004); Southeastern Europe (excluding Greece) and Turkey, as well as Russia and other Commonwealth of Independent States countries; Mexico, Central and South America, and the Caribbean (excluding Puerto Rico and other overseas territories and departments); Gulf Cooperation Council countries, Iran, Iraq, Jordan, Lebanon, Palestinian Territories, Syria, and Yemen.

## Equity crowdfunding

For purposes of this report equity, equity crowdfunding is defined as electronic platforms that allow companies to raise equity or equity-like funding directly from investors. In general, the platforms act as conduits, putting together investors and companies in need of resources. The platforms are obliged, however, to conduct due diligence on the companies that want to raise capital through them, in order to ensure that the companies do exist and that the information they provide to investors is true, thus mitigating the risk of fraud.

**From a company's perspective the key benefit of equity crowdfunding is the possibility to raise capital from retail investors, with much lower requirements than what is required in the public markets.** While frameworks differ, in most countries companies need to provide only some basic information about their business or project to the platform, and such information is not subject to review by the regulator. Periodic and ongoing requirements are also limited. Given the more limited disclosure and regulatory intervention, limits are usually imposed on the amount of money that companies can raise through these platforms and the maximum amount that investors can invest through them.

**In many countries the possibility of raising funding through equity platforms is open to any SMEs. However, in practice the platforms are being used by early-stage companies** that still do not have a track record. In addition to ordinary equity, other types of equity-like instruments, such as preferential shares (stocks that offer limited voting rights) and convertible bonds, are being used by companies to access capital. From the SME perspective, the latter two types of instruments offer the advantage of limiting investors' participation in company decisions. (See box 4.7.)

**Equity crowdfunding provides retail investors access to an asset class (early-stage companies) that in the past was restricted to sophisticated investors.** Previously, the main vehicle to invest in start-ups was VC funds, to which only institutional and high-net-worth individuals had access. Retail investors were mostly confined to the public markets, which in most countries target companies that have a track record and are already profitable.

**In practice, two main models of equity crowdfunding have appeared.** In one, called company-led crowdfunding, the company sets the terms and conditions for the participation of investors, including the valuation of the company. In this case the due diligence that investors can conduct is limited. In the other, called investor-led crowdfunding, a syndicate of investors invests in the company led by a lead investor, which is usually an angel investor or a person with expertise in this type of investment. The lead investor engages with the company on behalf of the syndicate, conducts enhanced due diligence, and negotiates the terms and conditions for the investment. The negotiated terms then apply to all the investors in the syndicate (that is, all investors invest under the same class of shares and at the same price per share as the lead investor). It is common that investors will pay a carry on their profits to the lead investor for playing that role, similar to what is paid to a GP in a VC fund.

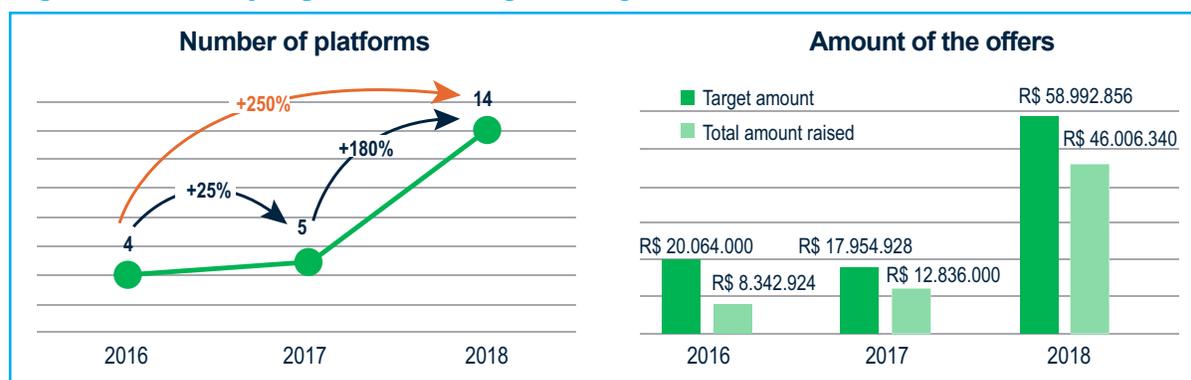
**Available data indicate that equity crowdfunding is also growing, although at a slower pace than lending or even receivables-based platforms.** From 2013 to 2017, equity raised via crowdfunding grew from \$0.2 billion to \$1.3 billion. Of this amount, 19 percent was raised in EMDEs. Although China was responsible for most of that amount, other EMDEs—India, Korea, Malaysia, Brazil, the United Arab Emirates, and Indonesia—also made the top 20 countries by total volume (see table 2.3, equity crowdfunding).

## Box 4.7: Selected experiences with equity crowdfunding

### Brazil

Equity crowdfunding platforms (ECPs) have become increasingly important for small and medium enterprises (SMEs) looking to raise venture capital in Brazil. In the past three years, the number of ECPs has more than doubled, from 4 in 2016 to 14 in 2018, while the total amount of funding raised via ECPs increased substantially from R\$8.3 million (US\$2.0 million) in 2016 to R\$46.0 million (US\$12.0 million) in 2018 (figure B4.7.1).

**Figure B4.7.1: Equity crowdfunding in Brazil, 2016-18**



The recent surge in equity crowdfunding appears to be driven mainly by the new Investment Crowdfunding Regulations (Regulation 588/2017) introduced by the Securities and Exchange Commission (Comissão de Valores Mobiliários, CVM) in July 2017. Important requirements under Regulation 588/2017 include

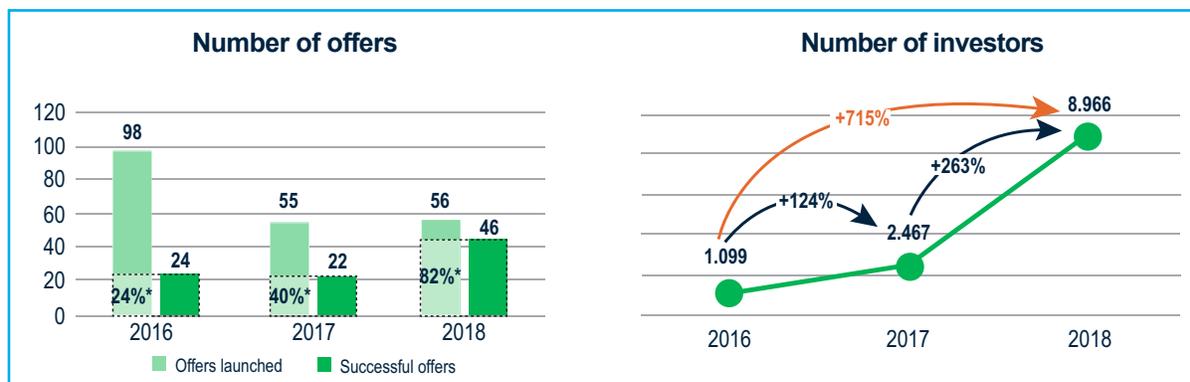
- ECPs must legally incorporate in Brazil, register with the CVM, and obtain an authorization to conduct equity crowdfunding business.
- ECPs are required to comply with obligations related to transparency, technological infrastructure, entrepreneurial know-how, and investor redress mechanisms.
- Companies incorporated in Brazil and with an annual turnover of less than R\$10.0 million (US\$2.5 million) are eligible to raise capital through ECPs.
- Public offerings not registered with the CVM are limited to R\$5.0 million (US\$1.3 million) for a period of 180 days.
- Nonaccredited investors with annual income or total net worth of less than R\$100,000 (US\$25,000) can invest up to R\$10,000 (US\$2,500) per year via ECPs. Lead or accredited investors, and nonaccredited investors with annual income or total net worth of more than R\$100,000 can invest up to the lower of 10 percent of their annual income or total net worth.
- Investment syndicates, or groups of investors, may be created for the purpose of investing in start-ups via ECPs. Each syndicate must be led by a qualified lead investor and is permitted to invest in only one public offering.

A key outcome of the new regulations has been a marked increase in the success rate of ECP offerings—from 24 percent in 2016 to 82 percent in 2018—suggesting an improvement in the quality of companies coming to market as well as in the due diligence undertaken by ECPs (see figure B4.7.2, panel a). Moreover, as shown in figure B4.7.2, panel b, the number of investors in ECP offerings has increased between 2016 and 2018, indicating a growing interest in ECPs from both retail and institutional investors.

### Malaysia

ECPs dominate the online alternative finance market in Malaysia, unlike in other countries where debt-based lending and noninvestment crowdfunding platforms remain the most popular alternative finance platforms. Between 2013 and 2017, the volume of funding raised on Malaysian ECPs increased significantly from US\$0.06 million in 2013 to US\$7.96 million in 2017, accounting for 50 percent of the volume of Malaysia's online alternative market in 2017.

**Figure B4.7.2: Investors in equity crowdfunding in Brazil, 2016-18**



As in Brazil, the rapid growth and increasing dominance of ECPs in Malaysia can be largely attributed to the conducive regulatory environment created by the Securities Commission (SC). In December 2015, the SC issued Guidelines on Recognized Markets (revised in 2019), which set out the requirements and obligations of recognized market operators. According to the guidelines, a recognized market is defined as an alternative trading venue, marketplace or facility that brings together purchasers and sellers of capital market products. Under the guidelines, recognized markets, including ECPs and P2P lending platforms, are subject to less stringent requirements than approved markets (that is, stock exchanges) and are regulated under a risk-based approach.

In particular, chapter 13 of the guidelines spells out the requirements for ECP operators, investors, and issuers. The guidelines also allow for innovative investment activities, such as the offer of Islamic or Sharia-compliant instruments and the hosting of microfunds. Important provisions include

- An ECP operator must be locally incorporated and is permitted to invest in the shares of issuers hosted on its platform, provided its shareholding does not exceed 30 percent and it makes disclosure of such shareholdings to the public.
- ECP operators are responsible for conducting due diligence on prospective issuers on their platforms, including taking reasonable steps to conduct background checks and verify the business proposition of the issuer.
- Only locally incorporated private companies or limited liability partnerships are permitted to raise funding via ECPs. Microfunds managed by registered venture capital companies may also be hosted by ECPs, provided they raise funding only from sophisticated and angel investors, and they have a specific investment objective.
- Issuers may not be hosted concurrently on multiple ECPs but may be hosted on an ECP and a P2P lending platform, at the same time, subject to disclosure requirements.
- An issuer that is not a microfund may raise up to RM3 million (US\$750,000) within a 12-month period and may only use ECPs to raise a maximum of RM5 million (US\$1.25 million).
- Retail investors may invest up to RM5,000 (US\$1,250) per issuer, up to a total of RM50,000 (US\$12,500), within a 12-month period.
- Angel investors may invest up to RM500,000 (US\$125,000) within a 12-month period. There are no investment restrictions for sophisticated investors (venture capital and private equity corporations registered with the SC).

The SC has since registered seven ECP operators in Malaysia, which have provided a much-needed avenue for microenterprises and SMEs to raise early stage financing from a wide base of investors. In particular, 49 percent of funding raised via ECPs were for amounts below RM500,000 (US\$125,000), suggesting mainly startup and small companies are raising funds through ECPs. Retail investors made up 56 percent of the investor base.

Sources: World Bank elaboration based on CVM 2019 for Brazil and CCAF 2018a, and Securities Commission of Malaysia 2019a and 2019b for Malaysia.

**Overall, World Bank experience and the empirical research conducted suggest that equity crowdfunding might face more challenges for its growth in EMDEs than other platforms analyzed in this report.** It is still early to offer definitive conclusions, but the slower pace of growth of equity crowdfunding platforms seems to reflect a reluctance from companies to open to outside investors as well as the higher level of risk that this type of investment represents for investors. As indicated, the former concern could be mitigated through the use of instruments different from ordinary shares (such as preferential shares or convertible debt). The latter concern could be partially mitigated through the use of the investor-led crowdfunding model. However, the fact remains that in practice these investments are much riskier than investments in shares of public companies, because they are investments in start-up companies, which have greater risk of failure; thus, investors need to be prepared to lose all their capital. Further, even if the companies do not fail, returns may take years to materialize. Finally, the empirical research conducted suggests that equity crowdfunding is associated with stock market capitalization, which means that it is more likely to appear in countries where the equity markets are more developed. In any event, experience indicates that other issues would also need to be tackled, including the need for a legal and regulatory framework for equity crowdfunding.

## Equity issuances and specialized SME markets

**Over the past 10 years, many countries have sought to develop specialized SME exchanges, based on proportionate requirements, on which SME equity offerings could be listed and traded.** Such exchanges seek to alleviate the burden and cost of regulatory compliance that may deter SMEs from listing. The proportionality principle usually applies to performance, disclosure, and governance requirements. How far these requirements are reduced depends on the branding and positioning of the exchange, including the type of investors to which it caters. For example, some SME exchanges allow companies to list by introduction, whereby their listing does not need to be associated with a public

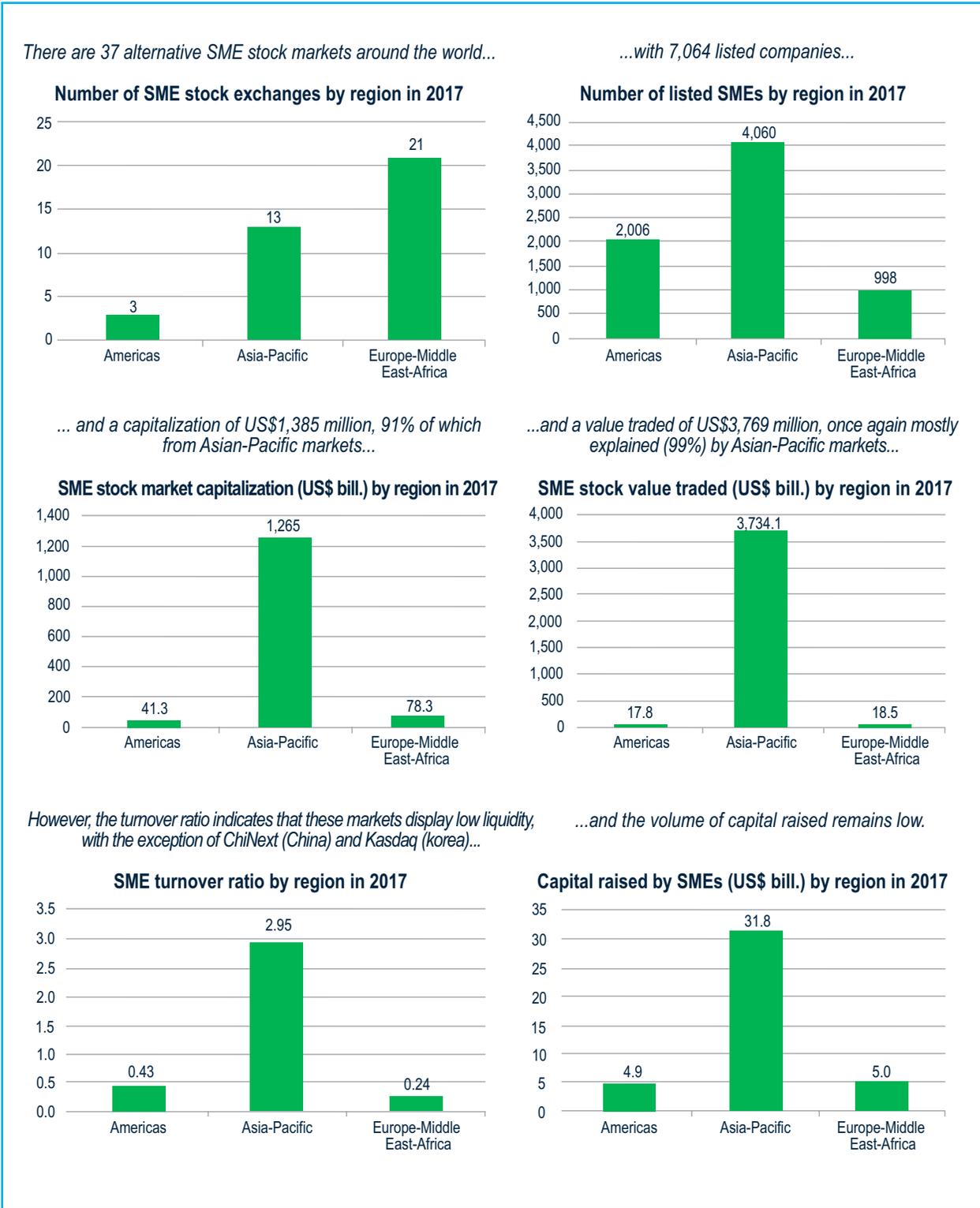
offering and, as a result, the disclosure requirements are further reduced. In such scenarios, the exchanges are usually not open to retail investors.<sup>43</sup>

**As of 2018, there were 37 exchanges classified as SME equity exchanges or alternative equity markets globally, with 25 of them in EMDEs, listing over 7,000 companies** (World Federation of Exchanges database) (figure 4.3). In spite of the relatively large number of SME equity exchanges, the bulk of listings are concentrated in a few exchanges. Of the top 10 SME exchanges measured by market capitalization, 7 are located in six AEs, while the remaining 3 are located in two EMDEs—China (which has two SME exchanges, ChiNext and the Growth Enterprises Market) and Romania.<sup>44</sup> Most of the listings and market capitalization are concentrated in the Asia-Pacific region.

**In most cases, the SME exchanges operate as a second board within the structure of a traditional exchange. In only a very few cases are there stand-alone SME exchanges.** The definition of SMEs used by these exchanges varies. In some cases, the criteria used include variables such as the revenues/number of employees of the company, whereas in others the market capitalization is used. In some cases, the exchanges target specific SMEs, such as high-growth or innovative SMEs.

**In general SME exchanges are significantly smaller than traditional exchanges, both in terms of market capitalization and the number of listings.** A 2018 report by the World Federation of Exchanges (WFE 2018) based on information from 33 exchanges showed that in two-thirds of the markets covered, the capitalization of the SME board is less than 1 percent of the total market capitalization of the main exchange. Seven SME exchanges had a market capitalization of between 1 and 5 percent, and the remaining five exchanges had a ratio of 15–30 percent. In 50 percent of the SME exchanges, the number of listed companies in the SME exchange was 10 percent or less of the total listed on the main exchange. In seven markets, it was over 30 percent. These numbers illustrate the potential difficulty in developing an SME exchange where a strong main market does not exist.

**Figure 4.3: SME exchanges**



Source: World Bank elaboration based on World Federation of Exchanges data.

**SME equity exchanges face several challenges. The first is the availability of a pipeline of SMEs that are able and willing to comply with the listing requirements.** In practice, some exchanges, such as AIM (United Kingdom) and Warsaw Stock Exchange New Connect (Poland) in AEs and JSE Security Exchange's AltX (South Africa), GreTai (Taiwan, China), and BIST (Turkey) in EMDEs, have made use of specialized intermediaries (advisers or sponsors) to support SMEs. The advisers or sponsors are in charge of vetting the issuers and supporting their ongoing compliance with listing requirements; thus they provide comfort to investors about the quality of the issuers. The intermediaries are licensed by the exchange, the regulatory authority, or both. In most cases, they are securities intermediaries (broker dealers), although in some cases, such as New Connect, the category has been expanded to cover other entities, such as legal firms and auditing firms. In practice, reputational risk has not been enough to ensure the quality of the work of sponsors; rather, the existence of a robust supervisory and enforcement program has proved to be critical. The use of advisers may be more difficult for smaller EMDEs, whose SMEs are smaller and require a low-cost structure and whose advisers are less established. In these cases, it is critical then that the exchanges perform the role of screening SMEs for the benefit of investors. However, it is not clear whether the exchanges in EMDEs have the capacity to do so.

**A second key challenge relates to liquidity. Secondary market liquidity** on an SME exchange is typically much lower than on the main exchange or market. This situation is a result of the characteristics of SME issuances, which are far smaller and often riskier than those in the main markets. This also makes them less attractive to certain classes of investors, particularly institutional and foreign investors. Therefore, the investor base in SME issuances has been mostly composed of high-net-worth individuals, and thus usually has been of limited size. To some extent, investors who invest in SME exchanges need to

accept the limited liquidity of these issuances; however, even then some level of liquidity is necessary. Exchanges are trying different approaches to increase liquidity, from auctions to market makers. For example, some exchanges, such as BIST and Bovespa Mais (Brazil), encourage market making via incentives, while a few SME exchanges such as New Connect and the NSE Emerge (India) impose market makers as a requirement to list. Nevertheless, the existence of market makers has not guaranteed liquidity; at best it has provided the market with a reference price and an exit mechanism for small investors.

**Lack of research about the companies is the third key challenge.** Very little research coverage is available for listed SMEs, because research analysts do not find it commercially profitable to cover them. This in turn affects the visibility of these firms within the securities intermediary community, and ultimately their attractiveness to investors. As a result, some exchanges pay or subsidize research for a period of time. For example, NSE Emerge pays for research on all SMEs for a two-year period and Bovespa Mais subsidizes it also for a two-year period.

**In many countries, particularly in EMDEs, the sustainability of the SME exchange itself is an ongoing concern.** In many, if not most, countries the success of these exchanges has been limited at best, in terms of the number of listings, the capital raised, and their role as a feeder of companies to the main exchange. The struggle is due both to the nature of the issuers themselves, which even under proportionate requirements find it difficult and costly to comply with listing requirements, and the lack of an investor base to support them, because these types of issuances have not attracted institutional investors and thus have an investor base mostly composed of high-net-worth individuals. Therefore, many SME exchanges, particularly in EMDEs, need to be subsidized by the main exchange. In countries where the main exchange already struggles, the need to subsidize the second board becomes a bigger challenge.

## Box 4.8: SME equity exchanges: New Connect

New Connect is a multilateral trading facility that caters to smaller companies in Poland.

As of the first quarter of 2017, there were 400 domestic companies and 7 foreign companies listed in New Connect for a market capitalization of about €2.3 billion. In 2016, there were 16 new listings in New Connect, though the number of new listings has been declining. Roughly half of the new listings on the Warsaw Stock Exchange (WSE) are companies that graduated from New Connect.

New Connect has benefitted from a number of factors, including a dynamic SME base and a large and knowledgeable investor base composed of individual investors. Most of the companies in New Connect issue their shares via private placements to no more than 149 investors.

Issuers are required to sign a contract with an authorized adviser, whose function is essentially to ensure issuers' compliance with their obligations. New Connect considers its well-regulated authorized advisers a key to its success.

Disclosure requirements in New Connect are less onerous than those of the main market. However, over time changes have been implemented to strengthen the quality of information available to investors. For example, in 2015 the WSE incorporated the obligation for issuers to submit annual audited financial statements and expanded the list of events covered by the obligation to submit current reports. In tandem, requirements for authorized advisers have been strengthened, with the inclusion of the requirement for authorized advisers to have employees with the status of certified adviser (granted following an examination offered by WSE). In addition, the period of mandatory relations between issuers and authorized advisers was extended from one to three years after listing.

This more rigorous regulatory approach has been complemented with a reorganization of the New Connect market, which provides potential investors with a clearer view of the risks of different companies. Under New Connect 2.0, issuers have been divided in three segments: NC Lead, NC High Liquidity Risk, and NC Super High Liquidity Risk.

The WSE has implemented measures aimed at improving the liquidity of New Connect, including the requirement that new issuers have a market maker for the first three years of listing. In practice, liquidity remains a challenge, but this requirement has at least ensured that a price reference exists. Individual investors make up the bulk of trading in New Connect, and participation by foreign investors is limited. As of the first quarter of 2017, individual investors represented 77 percent, institutional investors were 16 percent, and foreign investors were 7 percent of the turnover (table B4.8.1).

**Table B4.8.1: New Connect data, 2014–17**

New Connect	2017	2016	2015	2014
Number of listed companies at end of the year	408	406	418	431
Total market capitalization at end of the year (million ZI)	9,616	9,457.94	8,416.54	8,752.35
Market capitalization of the top 10 listed companies at end of the year (million ZI)	2,567.87	2,718.23	2,252.54	2,327.97
Number of new listings during the year	19	16	18	22
Value of new listings during the year (thousands ZI)	155,758,329	40,919,201.96	78,463,015.46	117,305,195.89
Annual turnover (thousands ZI)	1,321,479	1,197,396.40	1,705,753.06	1,219,939.22
Annual turnover of top 10 listed companies (thousands ZI)	492,019	455,597.89	709,440.34	462,497.08
Average daily trading volume (number of shares traded)	10,960,280	13,815,726	15,665,424	9,296,665
Average daily turnover (thousands ZI)	5,285	4,771	6,796	4,899
Number of delistings <sup>a</sup>	15	30	32	36
Number of members at end of the year	31	34	31	32
€/ZI	4.17	4.42	4.24	4.31
<b>Number of trading days</b>	<b>250</b>	<b>251</b>	<b>251</b>	<b>249</b>

Source: World Bank elaboration based on information from the Warsaw Stock Exchange (WSE).

a. For 2017, 7 of 15 delistings were moves from New Connect to WSE; for 2016, 7 of 30 were moves from New Connect to WSE; for 2015, 13 of 32 were moves from New Connect to WSE, and for 2014, 10 of 36 were moves from New Connect to WSE.



Euro	Euro	Usd	rupee	Euro
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1.750	1.750	1.579	1.579	478.56
1.579	1.579	0.547	47635	554478.1
0.547	0.547	55.47	55.47	7848.222
55.47	55.47	4.111	4.111	4785.55
4.111	4.111	10.43	10.43	5711.34
10.43	10.43	99.01	99.01	7845.75
99.01	99.01	125.200	125.200	512465
125.200	125.200	1.000	1.000	4785.55
1.000	1.000	25.87	25.87	53251.97
25.87	25.87			454.2
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# Preconditions and Challenges

**As explained in previously, the emergence of many of the solutions described in this report requires a certain level of development of the capital markets.** This is clearly the case for indirect solutions, because they rely on the existence of corporate bond markets and build on them. It seems also to be the case for direct solutions that rely on funds because the mutual fund industry needs to be developed even at a basic level for those products to take off. The same applies to solutions that rely on securities offerings, in particular those that rely on the existence of traditional markets to anchor them.<sup>45</sup> Finally, in order to thrive, venture capital requires the existence of a robust capital market that can provide an exit mechanism for such investments.

**Some of the fintech solutions might not require a similar level of development of the capital markets.** Given that these platforms are a recent development, definitive conclusions cannot be made. That said, research conducted by the World Bank suggests that the development of these platforms is not correlated with the size of the economies nor their income level, a finding that can be considered hopeful for EMDEs. Research also suggests that the development of lending and receivables platforms is independent from the level of development of the capital markets, or at least no correlation was found. However, a correlation was found between equity crowdfunding platforms and stock market capitalization.

**Nevertheless, even those fintech solutions require that some basic preconditions are in place.** In particular, to be scalable and have impact, many of the solutions discussed would require a sizable investor base. In addition, the World Bank research

found a strong correlation between all the platforms analyzed in this report and both the level of credit intermediation and the respect for the rule of law.

**This finding highlights the need for EMDEs to continue tackling basic preconditions, which are important for capital markets to develop.** World Bank experience in the field, empirical research, and a survey of market participants conducted in 2019 all point to a series of preconditions for capital markets to take off (World Bank forthcoming). These preconditions can be grouped into three categories: macroeconomic stability, financial sector development, and a robust institutional and enabling environment. This report does not delve into the challenges faced by EMDEs in regard to these preconditions; however, if these essentials are not in place it is unlikely that authorities would be able to develop many of the solutions this report has described.

**In addition, it is important to acknowledge that the health of the SME sector and more generally of the more traditional SME finance market can affect the viability of the solutions described in this report.** Indeed, at the basis of all these solutions must lie a healthy SME sector. Furthermore, as the experience of AEs during the global financial crisis suggests, the situation of banks and other specialized SME lenders can affect—either positively or negatively—the development of some of the solutions analyzed.

**Beyond these preconditions specific challenges affect the emergence of capital markets solutions for SME financing in EMDEs.** The challenges affect the supply side, the demand side, the market infrastructure, and the enabling environment.

## Supply side

### Existence of the underlying assets

**The first basic element for the development of the solutions described is the existence of the underlying assets.**

**Both indirect mechanisms for financing and direct mechanisms that are based on loans require a pipeline of suitable SMEs loans. This pipeline might be difficult to develop in many EMDEs.** Many SMEs do not have a stable source of revenue and, as is particularly relevant to indirect mechanisms, lack the type of collateral that is usually required by banks, primarily real estate. That said, in some cases the challenge of not having enough quality SMEs might actually relate to the (limited) ability of lenders to assess their creditworthiness. In the past this hurdle was very hard to overcome, because many SMEs lack the type of information that is traditionally used by banks to assess credit risk. However, more recently this challenge is being addressed through the development of alternative mechanisms to assess the creditworthiness of SMEs, such as credit scoring mechanisms based on nontraditional information. Equally, lending platforms are making use of their own proprietary systems, leveraging big data. It is still early to assess the overall impact that the use of big data will

have on closing information asymmetries. Further, these scoring systems are relatively new and have not yet been truly tested through different economic cycles.

**A related challenge affecting some indirect solutions, particularly SME loan securitization, is the lack of a sufficient volume of quality and standardized SMEs loans.** In many cases, in both AEs and EMDEs, a single SME loan provider might not have sufficient volume of SME loans to offset the costs that a securitization transaction entails. In some AEs and more recently in a few EMDEs, multi-origination platforms are being used to overcome volume constraints; however, they themselves are complex (see box 5.1).

**In the case of receivables-based solutions, the pipeline of underlying assets is likely to exist; although other challenges might affect their use.** Indeed, in most if not all countries SMEs sell at credit, thus the underlying assets (the receivables) exist. But their use as collateral for financing might be affected by the legal requirements for their transfer, which can make such transfer cumbersome and costly, and by the potential for fraud inherent in paper-based receivables. Some countries, such as Italy, have implemented legal reforms aimed at easing the requirements for transfer. In addition, increasingly countries are implementing electronic receipts, which could significantly reduce transfer costs and mitigate

### Box 5.1: Multi-origination platforms

Multi-origination platforms offer advantages for lenders that want to access the markets, such as sharing transaction costs, enhancing the visibility of transactions toward the market, and increasing the size and granularity of the securitized portfolio. These features in turn reduce the costs and difficulties of fundraising.

However, key for the platforms' success is the alignment among originators. At a minimum this requires that the participating SME lenders agree on general eligibility criteria for the loans and on other important aspects of the planned transaction, which should ideally be accompanied by standardized loan agreements and related documentation. Generally, the suitable loans are mid- or long-term financing (no revolving loans or overdraft facilities), fully disbursed (not in the phase of approval or finalization), and not in arrears. Loans securitized may be both secured or unsecured.

The success of a multi-origination securitization also depends on the quality of servicing providers. Although the service providers needed are similar to those in a single-origination transaction, the key difference is the increased workload for the arranger of the transaction and other agents related to the collaboration with multiple originators and multiple portfolios.

In practice, multi-origination transactions remain challenging because of difficulties in the alignment between the participating SME lenders. This is particularly the case when the model used requires that each participant bears a counterparty risk toward other participants (that is, when portfolios are commingled). In these cases, one mechanism to reduce the risk is the provision of a guarantee to cover the counterparty risk for the benefit of the originators and investors.

Source: World Bank elaboration.

fraud risk. Furthermore, one of the lessons learned from countries that have implemented (or are in the process of implementing) electronic receipts in EMDEs is the benefit of incorporating requirements to facilitate their easy transfer along with those needed from a tax perspective, with a view to increasing the possibility that a marketplace for receivables emerges. For example, in Peru the legal framework provides that the electronic receipt can be “deposited” in a central securities depository; once this is done, the receipt acquires the characteristics of a security, which allows its easy negotiation.<sup>46</sup>

**Finally, securities offerings solutions also require the availability of quality SMEs, which is a challenge in many EMDEs.** In general, many SMEs lack knowledge about capital markets solutions. But even when they know the options available, those that can obtain financing from banks usually prefer that option because it requires less information and organizational changes from them than what is required to access the capital markets via a securities offering. In the case of equity,

the hurdle is even higher, because most SMEs are family-owned businesses that are reluctant to change their management culture and include outside shareholders. In addition, information barriers persist, making valuation of SMEs difficult and leading to gaps in perceived valuation between potential investors and the companies (and in the case of PE/VC between the manager and potential partners). However, such bank financing might not be available for many SMEs, including higher risk start-up companies for which equity financing is key.

**Understanding these challenges, many countries have programs to prepare companies to come to market.** In many countries, the exchanges have initially been the developers of such programs, sometimes subsidized by DFIs. Initially the programs focused on bringing listings to the market. More recently certain exchanges are developing more comprehensive programs that involve (a) the evaluation of companies along with assistance and capacity building, (b) a network of investors, and (c) a mechanism to bring together those two legs without involving a listing (see box 5.2).

### Box 5.2: The ELITE program

ELITE is a company owned by the London Stock Exchange Group and established in 2012. Its objective is defined as being a “global community” that seeks to provide companies with access to capital, networks, and the knowledge and skills necessary to increase their scale in a sustainable way and with economic impact. To do this, ELITE seeks to create an ecosystem in which investors, corporate advisers, entrepreneurs, and other institutions can interact with transparency and collaboration.

The program offers companies a route that consists of three stages: first, an assessment of the potential of the companies; then, strengthening of the business to scale it; and, finally, capital raising.

The evaluation of the company focuses on 10 key aspects (risk management, quality of administration, corporate governance, soundness of the business plan, competitive position within its industry, growth potential, financing structure, management of marketing and sales, level of digitalization, and form of information reporting) to identify strengths and areas for improvement, as well as business opportunities.

After the evaluation, ELITE offers support to develop skills and obtain the necessary knowledge to improve the management of the company and increase its scale. Approaches include mentoring programs, business support or education courses, as well as access to networks of experts, advisers, and academics.

Finally, the network is complemented with a platform of private placements for the raising of financing through various instruments (shares, traditional debt instruments, convertible instruments), all through a standardized process in which the issuer can choose the type of investors to which it wants to direct the offering.

The offering platform provides the investors information on the companies in standardized formats, to which a network of financial advisers (who can show offers but not take orders) and of agents is added.

Through the end of 2018, ELITE had within its network more than 1,100 companies, from 36 economic sectors and 42 countries, that consolidated more than 487,000 employees and sales of over \$84.2 billion.

Source: World Bank elaboration based on information from the ELITE website.

**But technical assistance has also been needed in connection with early financing.** Capacity constraints hinder many promising candidates for PE/VC investment. In this context, technical assistance (TA) serves to strengthen the case for PE and VC in EMDEs (see box 5.3). As a result, the notion of TA facilities working with PE and VC funds is now more accepted by LPs and GPs and is becoming a more common market model in the SME segment in EMDEs.

### Regulations supporting the instruments

**All the instruments this report has discussed carry risks to investor protection and, depending on the country, potentially also to financial stability.** Thus, an appropriate regulatory framework must be in place that should strike the right balance between the need to ensure investor protection and financial stability and the objective of expanding SME access to financing. Many EMEs still have significant work to do in this area.

### Indirect mechanism for financing

**Many EMDEs have frameworks in place to support plain vanilla issuances by SME lenders; however, even then some improvements might be needed.** In general, World Bank work in the field indicates the importance for EMDEs to work in mechanisms to make the authorization process of these issuances more expedient, for example by establishing streamlined procedures for programs of issuance or for seasoned issuers.

**Other more complex products require specialized regulatory regimes that might not yet be in place. Such is the case for SME loan securitization.** In general, the larger jurisdictions have already developed a framework for securitization, but a review might be warranted to ensure that the lessons from the crisis have been incorporated, in particular the need for standardization and robust disclosure and retention requirements. For smaller jurisdictions, the task might be larger, including the need to ensure

## Box 5.3: Technical assistance in the context of early financing

Technical assistance (TA) has two main benefits. First, it provides funding that enables fund managers to extend their reach to smaller companies. Second, it mitigates risk and increases the probability of successful investments for both private equity (PE) and venture capital (VC) funds by funding targeted operational improvements. Although the potential benefits of TA are clear, many funds investing in small and medium enterprises (SMEs) in emerging markets and developing economies (EMDEs) are small and lack the scale and financial resources to fund TA projects themselves. Thus, dedicated TA facilities financed by third parties such as development finance institutions, governments, or other donors have emerged to fill this need.

Technical assistance is typically categorized as either pre- or post-investment TA.

Pre-investment TA finances support for SMEs that have been identified as attractive investment targets yet require additional preparation before a deal can be finalized. Support might target improvements to financial reporting, operations, or legal and governance concerns.

Post-investment TA, on the other hand, finances support for portfolio companies that develop capacity needs during the life cycle of the investment. Such support might address governance improvements, training, access to expert technical advice and mentorship, and business strategy or operational improvements. This targeted support could, in turn, help improve the quality of the investments and prepare the company for exit.

Currently TA paired with investment in EMDEs is largely restricted to post-investment support for portfolio companies. In some limited cases, however, TA is provided pre-investment, or support is extended directly to an investment firm as part of its efforts to explore a particular investment thesis and to build a pipeline of potential target companies within a specific theme. Such cases are far less common, however, given donor preference to support portfolio companies.

The combination of pre- and post-investment technical assistance facilities during the life cycle of the investment is recognized to be about 7–15 percent of the value of a given investment. Usually, a technical assistance facility ranges between 6 and 20 percent (average around 10 percent) of the size of an associated investment fund.

Source: World Bank elaboration based on information from Divakaran, McGinnis, and Shariff 2014.

that vehicles that are bankruptcy remote are available and to create a framework for securitization itself, with a focus on ensuring the granularity of disclosure (at the loan level).

**As stated earlier, SME-structured notes might be a useful instrument for first-time banks and specialized lenders in EMDEs but would likely require a specialized regulatory framework to scale up.** For the reasons explained earlier, the World Bank recommends that a separate instrument (with the characteristic of having dual recourse) accompanied by a specific framework, along the lines of European Banking Authority recommendations, could be the best way forward.

### Direct mechanisms for financing

**In general, securities regulators need to ensure that proportionate regulations are in place for the offering of securities by SMEs.** That might mean ensuring the availability of exemptions of public offering, whereby under certain conditions SMEs can access the capital markets without triggering the requirements of a public offering. But it can

also mean, rationalizing the requirements for public offering, with a view to making it easier for SME to tap the public market. In both cases, regulators need to be mindful of the need to ensure investor protection and thus, a right balance needs to be sought.

**As part of this effort, regulators should consider the development of custom-made regimes for equity crowdfunding and lending platforms.** Regulators have adopted different approaches toward fundraising platforms. In some countries the sector has been allowed to grow without regulation, while in others governments have adopted specific regulations for it. Only in a few countries is there an outright prohibition of these solutions.<sup>4</sup> Although it is still early to make definitive conclusions and causation cannot be proven, early research shows a strong correlation between the existence of a clear regulatory framework for platforms for fundraising and the activity in such platforms (Rau 2019). Thus without proper regulation these mechanisms might not be able to succeed on a large scale. Box 5.4 provides an overview of the key elements of the regimes developed so far.

### Box 5.4: The regulation of crowdfunding

Precisely because of its potential impact on the access to finance for small and medium enterprises (SMEs), countries are increasingly seeking to ensure that their legal and regulatory framework provides room for crowdfunding as a form of capital raising. Some countries have enacted a single framework to encompass both securities-based crowdfunding and lending crowdfunding, whereas other countries subject them to separate regimes. The latter is a more frequent approach in countries where there are specialized regulators for securities and banking; however, that is not always the case. For example, in Spain there is a single framework for all such types of platforms, and in the United States many of the lending platforms fall under the jurisdiction of the Securities and Exchange Commission (because they fall under the definition of an investment contract).

Regulatory understanding of crowdfunding and its risks is still evolving, and thus no single model can be considered best practice yet. That said, following are key features of the regulation for securities-based crowdfunding that can be extracted from the regulatory frameworks enacted by both advanced economies and emerging markets and developing economies.

**Requirements for the companies seeking funding:** These frameworks are generally restricted to domestic companies. Some countries add other restrictions. For example, in some countries the framework can only be used by SMEs, or by companies that have not issued a public offering. In general, the framework focuses on disclosure requirements and no corporate governance requirements are imposed (although some basic requirements based on corporate law would apply). Disclosure requirements are lighter than those applicable under the traditional public offering regime. In general, a prospectus is not required, but some basic information on the business of the company or the project that it is seeking to fund is required. In some countries, companies are required to present financial statements (and for issuances above certain size, some countries require that the financial statements be certified or audited, but this is not common to many regulatory frameworks). The information is not subject to ex ante review by the regulator. Periodic and ongoing

disclosure requirements are also more limited. In general, companies are required to provide information only about the progress of the offering and, in some cases, about certain adverse events. Given the more limited disclosure, there are limits to the amount that companies can raise through this mechanism.

**Regulations applicable to the investors:** In light of the more limited disclosure available, many countries are imposing limits on the participation of nonprofessional investors (retail investors); for example, some countries limit the amount that nonprofessional investors may invest in the platforms in a given period.

**Regulation of the platforms:** The platforms themselves are subject to licensing. In many cases a specialized license has been created (for funding platforms) that limits the type of activities the new licensee may undertake to operating the crowdfunding platforms. In a few countries, this activity is considered subsumed into an already existing license (for example, of a recognized exchange) or may be undertaken by an existing type of intermediary (for example, a broker dealer). Many, but not all, countries subject the platform operators to minimum capital requirements. Most frameworks do require them to comply with certain basic organizational requirements, including risk management standards. The platforms must also abide by business conduct obligations, the most important being the need to (a) ensure that the investors meet the requirements set forth in the platform, (b) keep investors' money segregated, (c) conduct a basic due diligence of the companies raising funding in the platforms and the information they provide, and (d) provide investors information about the progress of the offerings.

Source: World Bank elaboration based on the review of the regulatory frameworks in place in Brazil, Canada, India, Indonesia, Malaysia, Spain, the United Kingdom, and the United States.

**In addition, many regulators in EMDEs might need to strengthen the regulatory frameworks for mutual funds.** Although basic frameworks for mutual funds exist in many EMDEs, many of the SME funds described in this report, such as the SME loan funds,<sup>48</sup> have characteristics that require that a specialized framework be developed to address investor protection and financial stability concerns. Frameworks should address issues such as the minimum eligibility criteria for the assets, the level of leverage, and the need to match redemption periods to the liquidity profile of the portfolios. Further, consideration should be given to the extent to which some of these funds should be targeted only to sophisticated investors. In parallel the regulations should ensure that the fund managers have the appropriate expertise as well as risk management capabilities.

**Concerning PE/VCs, at the regulatory level the key concern relates to potential rigidities introduced in the frameworks for this type of investment.** In many AEs, there is no specific securities markets regulation for PE/VC funds; rather, regulators use legal structures available in corporate law (usually limited partnerships) and take advantage of the private offering regime existent in securities regulation, which means that the funds

are not subject to registration/authorization with the securities regulator. In some EMDEs, specific regulations for PE/VC have been adopted to establish these industries. The regulations may restrict the type of financing that PE/VC funds can give, such as limiting the ability to offer debt instruments to SMEs. The rules also may prevent PE/VC funds from divesting their shareholding in portfolio companies, through restrictions such as lock-in periods that lengthen the holding period for an investment, thus increasing uncertainty.

## Demand side

**For many EMDEs, the lack of a robust investor base remains a key challenge that hinders the potential to develop capital markets solutions not just for SMEs, but more generally to finance the real economy.** Thus, for many EMDEs the priority still lies in implementing policies that foster the development of a broad investor base. Assuming that such investor base is in place, additional issues need to be taken into consideration.

## Institutional investors

**As demonstrated by the experience of AEs, there is potential for institutional investors in EMDEs**

**to play a stronger role in SME financing, but many challenges would need to be overcome.**

Institutional investors are often some of the most long-term oriented and therefore could supply a crucial additional source of patient capital to help SMEs flourish. Nevertheless, in many EMDEs, institutional investors face regulatory challenges that limit their investments in SME-related assets. In addition, structural issues related to the nature of the underlying assets either need to be addressed through careful design or explicitly accepted by institutional investors, options which would affect the size of their investments in these solutions. Those issues are discussed in this section.

**In many EMDEs, the investment regime for institutional investors could limit the possibility that they invest in many of the capital markets solutions described in this report.**

Few EMDEs have gone the route of some AEs that have applied the “prudent person” standard to institutional investments.<sup>49</sup> In most EMDEs, the regulatory framework has largely remained rules based, with quantitative limits placed on investments by pension funds and insurance companies. This approach contributes to a lack of flexibility in asset allocation across various asset classes, and it typically favors large allocations to government securities and listed corporate securities. Furthermore, in some EMDEs the framework does not allow investment in alternative assets, which is the bucket in which many of the nontraditional solutions for SME financing would fall. Alternatively, the limits are too low, and thus investments in SME assets compete with other asset classes; or the process to obtain regulatory authorization to invest in alternative assets is very protracted, thus discouraging these investments. Equally, in some countries there are outright prohibitions for investment in securities placed via a private offering, which is the preferred placement method for many alternative investments, including PE/VC funds.

**In addition to regulatory issues, other challenges that arise from the characteristics of the solutions might limit investments by institutional investors. The need for scale is one of these challenges,** in both

AEs and EMDEs. In general, institutional investors have a sizable amount of assets under management and thus require that their investments be of a certain size to make an impact on their profitability. SME-related assets are usually small, yet the effort to monitor them is similar to that of more sizable investments. As a result, institutional investors choose not to invest in SMEs. The challenge could be mitigated by choosing an indirect route of investment—that is, by investing in funds that pool the SME assets. This is the way institutional investors have invested in PE/VC funds and are investing now in minibonds and SME loans in AEs. A similar strategy has been used by institutional investors when participating in receivables and lending platforms, whereby they buy receivables and loans in bulk. However, even then, particularly in EMDEs, size might still be a problem if there are no other investors in the market and, by either internal policy or regulations, institutional investors are prevented from being sole investors in a particular vehicle.

**The lack of liquidity of many of these solutions is also a challenge.**

Defined contribution pension plans usually include a feature that allows switching between multiple portfolios, which requires increased liquidity in the asset portfolio and serves as a disincentive for nonliquid investments. Insurance asset portfolios, especially for general insurers, likewise will need to ensure a certain level of liquidity in their portfolios and will be similarly constrained in their investment decision making. In contrast, many of the solutions discussed here are inherently illiquid, given the nature of the underlying assets. That is the case, for example, of those based on loans and receivables. This challenge can be partially mitigated through careful design of the capital markets solutions, for example by creating close-end funds that are listed themselves or by creating close-end funds with intervals that allow liquidity windows. In other cases, such as for PE/VC funds, the capacity to exit the investment is largely constrained by the lack of an active initial public offering market. This situation might lead investors to look for other forms of investment with self-liquidating features, such as subordinated debt, that mitigate exit risk.

**The lack of transparency has also been noted as a key explanation for inadequate institutional investment in SMEs.** Many of the SME solutions described in this report are executed in private markets, which are not subject to the same level of disclosure and transparency as the markets of public offerings. To some extent the lack of transparency can be mitigated by the institutional investors themselves if they request information from the issuers of the products irrespective of the regulatory regime that applies to the offering. But the private nature of the transactions can also affect price formation and liquidity.

**Finally, some of the solutions could have leverage imbedded.** That is the case of some of the credit funds discussed. Thus, institutional investors need to be in a position to determine whether this is an acceptable risk for their portfolios.

**All the challenges point to the need for institutional investors to have the capacity to assess and monitor alternative assets. This is not always the case in EMDEs.** In practice, the lack of capacity has prevented institutional investors in some EMDEs from investing more actively in SME solutions. In Kenya for example, pension funds were permitted to invest up to 10 percent of assets in private equity and venture capital in 2015; however, to date, actual allocation to PE/VC funds has remained low (Divakaran, McGinnis, and Schneider 2018). Although other issues are at play, such as the structure of the pension system overall, a lack of internal capacity and knowledge of alternative instruments within Kenyan pension funds have remained a key barrier to investment in SMEs. This is likely a similar scenario in other EMDEs. To remedy this, local pension funds in Nigeria are permitted to invest in private equity only where other DFIs are among the LPs so that the DFIs can transfer knowledge and skills (MFW4A and EMPEA 2014). Addressing these capacity challenges will be key to ensuring that an enhanced use of capital markets solutions does not lead to a buildup of risks to investor protection or financial stability. In addition, the regulatory regime for pension fund managers and insurance companies should contain provisions on risk management.

## **Retail investors**

**A key challenge in connection with SME-related solutions is the extent to which they are suitable for retail investors.** Many of the solutions analyzed in this report have a higher risk profile than more traditional products, such as equity and bonds offered in the main market. That is why in AEs some of the products described are offered only through private placements, which limit the access that retail investors have to them. However, in the cases in which such solutions can be offered to retail investors, it is critical that regulations (a) require appropriate disclosure about the risks imbedded in the products, and in the case of funds impose an appropriate regime for them that deals with issues such as eligible assets, leverage, and liquidity; (b) ensure that the products are correctly labeled; and (c) compel the intermediaries that recommend the products to investors to comply with robust conduct obligations—in particular, the obligation to recommend only products that are suitable to the investor. Many EMDEs have significant work to do in all those aspects, as will be discussed later in this report.

## **Foreign investors**

**Aside from more general issues related to the level of development of the markets in EMDEs, many SME solutions are not attractive to foreign investors.** This is particularly the case of direct solutions due to a combination of factors, including the lack of information about these solutions, issues of scale, and the fact that these solutions are not aligned with their risk/return appetite. Similar to retail investors, fund-based solutions could help mitigate some of these challenges. That is, in fact, the vehicle that foreign investors have used for their investments in PE/VC funds, in many cases via off-shore vehicles due to taxation issues. However, foreign direct investment controls can significantly slow down the operations of an offshore PE/VC fund in a country.

## Market infrastructure

**Most of the solutions require the existence of capital markets infrastructure.**

**In general, indirect mechanisms of financing require that a fixed income market is already in place.** This means the existence of securities intermediaries that are able to structure the instruments as well as to distribute them. They also require information service providers—auditors, at a minimum, but potentially also credit rating agencies and securities research analysts—that follow the securities and provide analysis to investors about their performance. Finally, investors would also expect that there be trading platforms where such instruments can be traded in the secondary market.

**Fund-based mechanisms of direct financing also require that basic elements of capital markets infrastructure are in place.** In particular, these mechanisms require specialized intermediaries, fund managers who must be able to conduct credit risk assessments of nontraditional assets such as loans and receivables. Alternatively, they would need to be able to contract the services of third parties that could perform the corresponding due diligence for them. PE/VC funds also require specialized fund managers with expertise not just to select the assets but also to provide managerial assistance to the companies in which they invest.

**The same applies to securities offerings solutions, which would require that many components of the capital markets infrastructure already be in place.** Requirements include intermediaries that can assist companies in determining the structure of the issuance and the method for their placement and can conduct the placement as well. In addition, experience indicates that investors increasingly expect secondary trading platforms through which they can exit their investments.

**In contrast, platforms-based solutions do not require traditional capital markets infrastructure, but they do require certain services to be available.** First, intermediaries are needed to operate the

platforms and act as a bridge between investors and companies. These intermediaries can be traditional exchanges or securities firms, but they can also be new entities that would be subject to authorization requirements. In addition, lending and receivables platforms will need to have mechanisms in place to conduct due diligence and assess the credit risk of the SME seeking a loan or the company issuing the receivables that are being sold. The platforms usually have proprietary systems that leverage big data to assess the credit risk. Equity platforms will need to have in place mechanisms to conduct due diligence on the companies that want to raise funding through them. In addition, for this type of fundraising internet penetration across households is key. Finally, strong payments infrastructure is critical for the success of these platforms.

**Some of this infrastructure is deficient or missing in many EMDEs. For example, securities intermediaries lack expertise,** particularly for more complex structures such as securitization, and would require capacity building. Certain categories of intermediaries, such as the sponsors that have been a critical component of the market model of many SME exchanges, are not yet contemplated by regulations in many EMDEs. Moreover, many EMDEs face more general problems concerning the regulatory framework and in particular the licensing regime that applies to traditional intermediaries. In this regard, such EMDEs need to move toward a licensing regime that is based on activities and that aligns capital and other authorization requirements with the level of risk imbedded in the activities for which the license is being sought. Doing so would ensure that risks are appropriately taken into consideration but that undue entry barriers are not created. Some of these challenges can be found in the fund management industry as well, because in many EMDEs fund managers do not have the skills necessary to manage products such as PE/VC funds or the credit funds discussed in this report. Further, business conduct obligations might not be sufficiently developed in many EMDEs.

**Further challenges involve information service providers.** Although auditors are present in many

EMDEs, the quality of their work can be a challenge, even in AEs. Regulators have moved to establish stronger oversight regimes for auditors, but concerns remain. In addition, some EMDEs lack credit rating agencies. Credit rating agencies can perform a critical role in mitigating information asymmetries in EMDEs by providing an easy-to-understand assessment of the quality of companies seeking debt funding. That is why in some EMDEs the use of ratings in the regulatory process is mandatory. However, to mitigate potential misalignments, credit rating agencies need to be subject to strong oversight, which is still a work in progress in many EMDEs. Finally, research analysts are missing in most EMDEs—and even when they are available, they usually do not cater to small issuances. As a result, investment firms are not familiar with SME issuers and are less likely to recommend them to their clients. Thus some exchanges have programs to subsidize research for SME issuances, at least for a period of time.

**Finally, in the context, of electronic platforms, information technology issues are still a big**

**hurdle.** Network quality and quantity is an issue in some EMDEs. In addition, the lack of online mechanisms to easily transfer funds has proven to be a barrier in some EMDEs. For example, in Tunisia or Morocco, the fact that banks are the only payment gateways and that the currency is not convertible, has translated into a lack of digital payment options (World Bank 2015a).

## Supervision

**The need for authorities to have robust supervisory arrangements in place is as great as the need for sound regulations (box 5.5).** As indicated previously, many of the solutions discussed in this report have a higher risk profile than traditional offerings in the main markets. Thus it is key that authorities have arrangements in place that allow them to effectively monitor the evolution of these solutions in order to detect early on any potential buildup of risks either to financial stability or investor protection and to take measures to address them in a timely manner.<sup>50</sup>

### Box 5.5: The need to monitor developments and adjust regulations: The case of marketplace lending in China

The marketplace lending business in China is the largest in the world. According to the Cambridge Centre for Alternative Finance (CCAF), as of the end of 2017, about US\$321.4 billion had been raised on lending platforms, of which 224 corresponded to marketplaces for consumer lending and the remaining to marketplaces for business lending. As of August 2018, there were about 1,500 platforms. However, the industry is highly concentrated. For 2017, 44 platforms with a turnover of at least Y 10 billion accounted for 66.30 percent of the volumes raised. The average loan was between Y 100,000 and Y 400,000. The average interest rate was about 9.45 percent, with over half of the platforms charging between 8.00 percent and 12.00 percent (and about 3.25 percent of platforms charging interest rates of over 15.00 percent). The bulk of the loans were short term, with about 80.6 percent of the platforms facilitating loans with a maturity of less than six months. The average investment amount by a typical lender was between Y 10,000 and Y 30, 000. Since 2017, the rate of growth has decelerated, and the industry is going through a process of consolidation.

The first online platform was launched in 2007. Since then and until 2017, the industry went through rapid growth, in large part because the platforms were promoted by the public authorities as a way to support small and medium enterprises. In 2015, a broad internet finance policy framework, which promoted the growth in the industry, was introduced. The public support along with word of mouth made China the largest peer-to-peer lending market. The number of platforms rose from 10 in 2010 to more than 3,000 in 2015 and to about 6,000 at the peak. As more platforms entered the space, the new platforms started to promise interest rates much higher than their competitors. Compared with an interest rate of less than 2 percent from banks, many peer-to-peer platforms promised a return of 10 percent—and some even higher. Lack of transparency made it hard to assess how the platforms were using the money. As a result, fraud occurred. The first important fraud took place in 2016, when Egubao scammed investors over Y7.6 billion through a Ponzi scheme.

This scandal prompted the establishment of a more rigorous system of regulation and supervision called the 1+3 system (one method, three guidelines) with the objective of monitoring, managing, and mitigating industry risks. In this context, the China Banking and Insurance Regulatory Commission issued the Interim Measures for the Administration of the Business Activities of Online Lending Intermediary Institutions (2016). The regulations aim to transform the industry into pure information intermediaries: the platforms can gather information from borrowers and lenders and match their needs, but the platforms are not allowed to pool investors' funds nor to provide any credit services themselves (as most of the platforms had been doing). The measures further compel the platforms to rely on real investors to fund the businesses.

In addition to these key changes in the nature and scope of services provided, the regulations call for self-review and report of statistics of unpaid and nonperforming loans, as well as disclosures to investors about the way the platforms operate. The regulations also call for on-site inspections of the platforms and provided inspection powers to the National Internet Finance Association (a self-regulatory organization) and to the provincial governments. The regulations provide for penalties for platforms that infringe on their obligations and legal consequences for operators of Ponzi schemes. Borrowers who fail to pay are to be penalized in the credit rating system. Additional guidelines provided for a specific timetable for implementation to be set up.

A combination of factors, in particular (a) tightening of the credit environment, (b) increased compliance costs, and (c) panicked withdrawals, led to the failure of many platforms during June–July 2018, either because they were not able to repay investors or because of fraud by the platform operators. During this industry turmoil, the authorities accelerated the process of improving the regulatory system and launched several initiatives to accelerate filing, implement comprehensive inspections, and ensure orderly exits. By 2018, there were about 1,595 platforms remaining. Although the market has gradually stabilized, it is expected that the process of consolidation will continue.

Source: World Bank elaboration mainly based on information from CCAF 2018a.

**Active supervision is dependent on a set of preconditions.** First, authorities need to have enough information to monitor the growth of different products. Second, they need to ensure that a supervisory program is in place, and third, a strong enforcement program has to be in place because regulation and supervision are only as strong as enforcement. These conditions are not always met.

**In EMDEs and AEs alike, many supervisors lack the necessary information to monitor the markets, especially those products placed under a private offering.** Just a few countries, such as Canada and the United States, have imposed notification requirements in the most important exemptions of public offerings, which in turn allow them to effectively monitor the evolution of the private markets and determine whether intermediaries are complying with the conditions attached to the exemptions. Some EMDEs, such as Kenya, are incorporating this notification into their frameworks.

**Ensuring the existence of a robust supervisory program is a challenge for many EMDEs, mainly because of capacity issues.** Indeed, in many EMDEs the supervisory programs in place follow a compliance-based approach. These regimes provide a false sense of security as they focus on breaches to laws and regulations and not enough attention is given to the identification of intermediaries, activities, or products that pose undue risk to the markets, either from an investor protection or a financial stability angle. Thus, it is critical that regulators implement risk-based supervisory programs. The implementation of such programs in small markets is relatively simple; however, it does require a good understanding of the market, its functioning, the business models of market participants, and the characteristics of different products with a view to understanding where potential misalignments might take place. Furthermore, as the importance of capital markets solutions grows, securities markets supervisors in EMDEs will need to enhance their coordination arrangements with other financial supervisory authorities to facilitate the detection of potential channels of contagion.

**Finally, robust enforcement is a challenge for most EMDEs because of a complex set of factors.** Those factors range from gaps in their authority and capacity challenges to more political issues such as the perception in many countries that strong enforcement can stifle market development. However, experience indicates that weak enforcement ends up weakening the credibility of the supervisor and, by inference, investors' confidence in capital markets. Thus, the key lies in ensuring that regulations are proportionate and that when enforcement is used, it is applied in a proportionate manner, whereby the remedies imposed are aligned with the nature and significance of the offenses.

## Other components of the enabling environment

### The tax system

**In many EMDEs problems with tax asymmetries still affect the development of capital market solutions for SMEs.** In some countries, certain capital markets solutions are at a disadvantage from other financing mechanisms from a tax perspective. For example, in Peru loans originated by entities regulated by the banking supervisor are exempted from the sales tax, while alternative lending mechanisms in the capital market (such as lending platforms and loan originating funds) are subject to the tax.

**In addition, in many countries there are still problems with the tax treatment of funds.** In general, funds need to be structured as tax-transparent vehicles, whereby only the final investors are taxed, not the vehicle. However, many EMDEs still have double taxation (to the fund and to the investor), thus making fund investments a tax-inefficient instrument.

### Credit reporting

**Credit reporting systems are critical to addressing asymmetries of information.** Credit bureaus frequently do not provide information on SMEs, so other type of servicers, such as credit scoring firms, may serve as an alternative. Key to

supporting the expansion of SME financing is the use of nontraditional typologies of data to assess the creditworthiness of SMEs (box 5.6). Such information includes, for example, data on payments to mobile telephone companies and utilities, as well as mobile or other electronic payments received from customers for the purchase of SME goods and services. In the past few years these data have proved important to build a credit history for those firms that do not have it (“informal,” nonbankable, micro/SMEs). Fintech solutions are taking this concept further by allowing the use of the data footprint of SMEs on the internet to build a credit profile.

### Movable collateral

**Improvements in the type of collateral that may be given could benefit SME access to finance, not just through traditional means but also through capital markets solutions.** The lack of recognition of movable assets as collateral is among the top reasons that SMEs face difficulties accessing finance. Traditional lenders such as banks require collateral to lend to businesses and, in practice, have a preference for real estate. However, assets owned by any given business are typically 75 percent movables (inventory, equipment, farm products, accounts receivable, and intangibles) and only 25 percent real property (land or buildings). In this context, legal reforms aimed at expanding the universe of assets that may be used as collateral to include movable assets (such as inventory, accounts receivable, intellectual property rights, companies' shares, livestock, crops, equipment, and machinery), along with implementation of the corresponding registry, are critical to improving SME access to credit via both traditional lending and capital markets solutions, because they expand the universe of “quality” SMEs. See box 5.7.

### Insolvency

**Implementing a robust insolvency system that promotes the reorganization of viable enterprises and gives honest entrepreneurs a second chance is also critical to improving SME access to finance via traditional and capital markets solutions.** A

## Box 5.6. Selected experiences with credit scores

### Thailand

In May 2016, the National Credit Bureau of Thailand began offering FICO scores for small and medium enterprises (SMEs) to banks and financial institutions to enable them to better assess the creditworthiness of SMEs in May 2016. The FICO SME Score, which predicts the probability of delinquency of more than 90 days in the following 24 months, is computed using an empirically derived model that is supplied with data collected by the National Credit Bureau of Thailand and Business Online Public Company Limited, a private research firm. It generates a three-digit number between 490 and 813 in eight risk bands from AA to HH, which rank-orders SMEs according to risk. The higher the score, the lower the risk. Up to five “reason codes” are returned to the lender to help with the interpretation of the score. The FICO SME Score provides lenders in Thailand with an effective tool for rank-ordering the credit risk of SMEs. Using the scores, lenders can make lending decisions that are faster, more accurate, and more consistent. Lenders can also use the FICO SME Score to support their internal-ratings-based (RetailIRB) approach to calculating the required minimum regulatory capital. The score applies to different types of products, and lenders can use scores to make decisions across the entire life cycle of an account’s SME.

### Chile

Equifax Chile launched the predictor inclusion score, a risk score derived from encrypted mobile usage data, in February 2017. When Equifax receives a credit inquiry from an unbanked person who may work for a microenterprise or small business, it checks its traditional credit database. If no record is found, Equifax then (with consumer consent) queries the telecommunications database using the mobile number for matching. Equifax returns a score on exact cell phone number matches, calibrated to a credit score. The score enables retailers and financial institutions to evaluate financial services requests from microenterprise and small business owners, many of whom lack traditional credit and financial data. In addition to collecting telecommunications data, Equifax is developing analytical tools based on socio-economic relationships and retail and agricultural data to supplement traditional credit data. Thus the program provides new insight on the SME segment that enables financial institutions to make differentiated credit offers to microenterprise and small business owners they previously could not evaluate for credit purposes.

Source: World Bank 2018.

## Box 5.7: A well-functioning collateral registry in Australia

The Personal Property Securities Register in Australia is an example of a well-functioning collateral registry. Under the oversight of the Australian Financial Security Authority—with more than 100 full-time employees—the registry records security rights on personal property, fiduciary transfer of titles, financial leases, assignment of receivables, retention of title sales, and judgment claims. Following its launch on January 30, 2012, the registry implemented a two-year transitional period, during which secured parties were provided temporary perfection of security rights. In 2014, the number of new registrations reached 2,364,310. Searches soared from 5,886,945 in 2012 to 7,315,379 in 2014, underscoring rising confidence in the new collateral registry and regime.

Registrations can be made against individual and organizational grantors, and no physical presence is required. A standard registration form is provided with free text for some collateral classes. No additional documentation is required to be uploaded to the system. A flat fee, which is based on the registration duration, is charged. Any interested party can search online using the debtor’s identifier, a serial number, or a registration number, among other criteria. The registry then produces an “exact match” search. If someone is unable to perform an online search, the contact center of the collateral registry provides technical support, performing the search on behalf of the user and sending the results via email.

Despite the high volume of records, the collateral registry has yet to receive any complaints. An administrative mechanism—known as the amendment demand process—is in place to resolve disputes, if they arise. The registrar of the personal property securities register is responsible for its administration. If the registrar were to receive a complaint that the registration of a party is invalid, the registrar would be tasked with ascertaining whether the registration should be discharged from the registry.

Source: Australian Financial Security Authority website referenced in World Bank 2018.

reorganization-oriented insolvency regime plays a crucial role in mitigating investor and creditor risk, which in turn contributes to improving access to credit and lowering the cost of credit, as well as providing for a more stable financial system. As a result of reorganization procedures, creditors are willing to extend more credit, debtors are provided an opportunity to stay in business, and employees keep their jobs.

**Out-of-court workout (OCW) procedures for insolvency can be an essential component of the credit infrastructure**, especially in jurisdictions where judicial insolvency procedures are time consuming and expensive and where the courts may be overburdened or lack sufficient capacity to deal effectively with insolvency proceedings (Ramalho and others 2018). OCWs involve voluntary agreements with creditors to restructure the debtor's composition of assets and liabilities without judicial intervention. They are informal and can be initiated by any party—the distressed company or its creditors. Such procedures can be used to ensure rapid recovery of a distressed company and, if viable, preserve the value of the company. As a result, they

are particularly important for SMEs, because they can reduce the cost of insolvency proceedings for them, enable viable firms to be preserved during the OCW procedure, and also preserve the financial relationship between the SME and its creditors (Ramalho and others 2018) (box 5.8).

## The Judiciary

**A strong judiciary underpins all the capital markets solutions described.** Capital markets are built on trust. When such trust is broken either because companies do not provide accurate information or because intermediaries do not fulfil their obligations, the system must have mechanisms in place to ensure that investors are compensated. In most countries, such compensation takes place via the judiciary.<sup>51</sup> Yet many EMDEs face challenges in using the judiciary, sometimes because of a lack of an independent judiciary but most often because judges lack the necessary knowledge of capital markets issues. For many EMDEs, these will require long-term efforts. In the short term, working on measures to strengthen alternative resolution mechanisms might help mitigate the challenge.

### Box 5.8: The importance of out of court workouts: Out-of-court workouts in Latvia

In response of one of highest levels of indebtedness in Europe, the Latvian authorities designed a strategy which included the implementation of voluntary debt restructuring mechanisms such as out-of-court workouts (OCWs). A consultative committee was established, made up of representatives from the Ministry of Justice, the state Insolvency Administration, the Latvian Commercial Bank Association, the Latvian Certified Insolvency Process Administrator Association, the Latvian Labor Confederation, the Foreign Investor's Council in Latvia, the Latvian Chamber of Commerce and Industry, and the Latvian Borrower's Association.

The consultative committee approved voluntary out-of-court settlement guidelines in August 2009. The guidelines provided a set of high-level practices, based on the INSOL principles, modified to fit the Latvian insolvency framework. The guidelines were published on the website of the Ministry of Justice, and the government organized workshops and training to increase awareness of the guidelines among stakeholders (banks, insolvency practitioners) and promote their use. Latvia's top banks identified the OCW guidelines as pivotal in addressing the widespread debt distress in the corporate sector caused by the financial crisis. Information from the Financial and Capital Market Commission indicates that most banks in Latvia have incorporated these guidelines into their internal procedures and creditors and debtors can now agree more easily to change the terms of debt repayments, allowing debtors to continue to do business without initiating insolvency proceedings in court.

Resources have been freed up in the court system as a result. The OCWs also allow creditors and debtors to address collective action problems through the provision of standstills or moratoriums, and they can encourage transparency and good faith in negotiations.

Source: World Bank 2018.

# Aligning Incentives

**The experiences reviewed suggest that even if the preconditions are in place, in some cases other types of interventions by governments might be needed** to mitigate market failures that cause investors to pay insufficient attention to the SME asset class. In addition, those interventions might also be needed to better align the risk-return appetite of investors, in particular institutional investors, with specific capital markets solutions. Following are brief descriptions of the types of interventions that have been used in AEs and EMDEs.

### Credit enhancements

**Credit risk guarantees have been used by governments to encourage the development of fixed-income products that can expand SME financing.** A key example described in this report is Spain's SME loan securitization program,<sup>52</sup> in which the government provides a partial guarantee to bonds issued by specialized SME funds that abide by specific standards. In exchange for such guarantee, originators are required to use an important percentage of the capital freed by the transaction to originate additional SME loans, therefore creating a multiplier effect. This guarantee has been critical to aligning the product with the risk-return appetite of institutional investors. Furthermore, it is unlikely that this product would be viable without such guarantee.

**Empirical research on the role of credit guarantees has mostly focused on its use in connection with bank lending.** Most existing studies provide positive evidence of the financial additionality of

guarantee schemes; however, measuring economic additionality has proved more difficult, in part because of data and methodological limitations (see Cusmano 2013). Nevertheless, such studies point to the need to carefully design guarantees and effectively monitor them. Both recommendations are equally applicable to guarantees provided in the context of SME securitization.<sup>53</sup>

**Multilateral development banks have also provided credit risk guarantees to spur the development of fixed income products that can expand SME financing.** For example, the European Investment Bank Group has a standing facility to guarantee SME securitization and is used on a regular basis for the credit enhancement of senior and mezzanine tranches (€0.5–0.8 billion annually in past years), but its role remains small. In addition, as discussed in this report, the World Bank is currently testing hybrid solutions in Colombia. Finally, MDBs have been key providers of credit guarantees in first issuances by microfinance institutions.

**As indicated in a previous report, there is a delicate balance between credit enhancements and the economics of the instruments** (World Bank, IMF, and OECD 2015). While credit enhancements might bring instruments to a desired rating, in practice depending on the magnitude, they might render the instrument financially unviable, either because there is no third party willing or able to provide such enhancement due to costs or because the resulting rate of return is no longer attractive to institutional investors.

## Direct investments and co-investments

**Many governments have established programs to invest in VC.**<sup>54</sup> Information asymmetry surrounding these firms leads to adverse selection and agency problems, which in turn lead to market failure. The financing gap is alleviated by VC, which reduces the information asymmetry via the intensive scrutiny of the firms and active involvement of the GP. However, in some countries this early stage market is underdeveloped. Given its importance, governments in some countries have established investment programs in an effort to jumpstart the industry.<sup>55</sup> Government programs to foster VC were initially used in the United States and the United Kingdom and have increasingly been implemented by other AEs such as Australia, Canada, Israel, and New Zealand. They have also been implemented by EMDEs such as Chile, China, the Arab Republic of Egypt, Ghana, India, Korea, Jordan, Morocco and Turkey.

**No generally accepted taxonomy for these programs has been developed, but overall there have been three modalities for government programs:** (a) direct investment programs through government-supported VC-like schemes, (b) co-investment programs in which the government invests alongside the private sector in VC funds (sometimes called hybrid VC funds), and (c) co-investment programs in which the government invests alongside private investors through funds of funds. In the case of co-investment programs, contractual arrangements aim to foster private sector participation, including through profit distribution arrangements that range from *pari passu* to arrangements in which the governments caps its participation in profits or compensates private investors for losses (Brander, Du, and Hellmann 2010; Colombo, Cumming, and Vismara 2014).

**In general, evaluations of the impact of these programs can only be found in a few AEs.** A key objective for the VC funds has been the crowding-in of private investors. Some studies have found cases

in which that objective has been achieved, such as in Australia and the United States, where co-investment models have been used. Other studies have found no support for the crowding-in effect, particularly in direct programs. The evidence of the impact of these programs at the level of the firms, in their ability to exit via initial public offerings and in their sales and growth is also mixed. Overall, positive effects have been found in some co-investment programs. That is why co-investment programs have become the preferred method for interventions.

**Challenges are also present when other DFIs participate in the VC/PE, including in SMEs located in EMDEs.** DFIs, in a quest for demonstration effect, often exert multiple (and perhaps untenable) requirements on fund managers (Divakaran, McGinnis, and Shariff 2014). For example, they may expect PE/VC funds to simultaneously adopt traditional-style economic models that generate internal rates of return in excess of 20 to 30 percent, while at the same time requiring these firms to move downstream to invest in SMEs, which inherently involves greater investment challenges and risks. Even when fund management fees are slightly above the industry standard, the restriction of the management fee to about 2 or 3 percent of what are typically small average fund sizes results in limited streams of operational capital. This situation often compels the GP to restrict the team composition and in turn impedes the ability of a firm to attract talent. Without sufficient capital to fund operations, PE and VC firms struggle to establish a strong local presence and to build the networks, relationships, and sector know-how that drive pipeline and investment quality. Given investor expectations and fund structures, a concerted move is made by many SME funds in EMDEs to invest in large, established companies. Moreover, firms may collaborate to cofinance large deals. Follow-on investments are also common, thus reducing the need to source new deals or increase the population of investable companies. These factors can combine to further exacerbate the financing gap for SMEs while creating incentives for fund managers in EMDEs to seek less risky deals in more established companies.

**More recently some governments have used co-investment to foster the emergence of alternative finance mechanisms for SMEs.** For example, as noted, the U.K. government has co-invested in lending platforms and direct lending funds in an effort to expand alternative finance mechanisms. In these cases, the funding is given to platforms not to capitalize them but to support their role as a market where investors and companies meet.

**Co-investment by MDBs is also taking place to foster the emergence of market-based solutions for SME financing.** For example, the EIF has invested in SME securitizations (Fund Circle 2018); the EIB is investing in lending marketplaces (Bakie 2019), and the IFC is investing in receivable funds in EMDEs.

## Tax incentives

**Tax policies are also used by many countries as part of the tools to incentivize investment in SMEs. Many countries, particularly but not exclusively AEs, have implemented tax incentives for VC investors.** The rationale for supporting VC investment via tax incentives can be summarized in two key convictions: that VC investment is beneficial for the economy as a whole and that VC investment is not adequately provided by the market itself. This type of incentive is offered in many AEs, including Australia, Canada, many European countries, Israel, and Japan. They have also been implemented in some EMDEs, such as Korea and Turkey. (See box 6.1.)

### Box 6.1: Tax incentives for equity

#### Tax incentives for investors

In many cases tax incentives do not apply exclusively to venture capital and private equity but rather to investment in small and medium enterprises (SMEs) in a broader context—so long as the investments are not listed on the main market (but they can be listed on an SME exchange). Three groups of tax incentives are available to investors:

**Back-end exemptions** on stamp duties, capital gains tax, or both. Countries where this has been applied include Poland, which eliminated stamp duty for trades on its SME exchange, New Connect; the United Kingdom, which eliminated the stamp duty tax for shares in the Alternative Investment Market; and India, which eliminated the capital gains tax on SME equity investments.

**Tax offsets** based on the value invested directly into SME equity. Investors may deduct a percentage of the value they invest in shares of new offerings of SME equity (to encourage investment in primary markets) and hold for a set period of time (which may discourage secondary market activity). Such incentives exist in Spain and in the United Kingdom, where investors may offset some of the value invested in new offerings if the shares are held for and a two-year and a five-year period, respectively;

**Tax offsets** based on the value invested into SME pooled investment vehicles. In the United Kingdom, tax incentives are given for listed venture capital trusts. In France, investors can access a tax credit of 18 percent of the value invested in Fonds Commun de Placement dans l'Innovation (innovation mutual funds—French acronym, FCPI). FCPI invest at least 60 percent of their portfolios in SME equity (including those listed on the SME Exchange).

#### Tax incentives for issuers

Most tax incentives for issuers involve a reduction in the corporate tax rate. Some countries offer the same reduction for both the SME market segment and the senior (main) board. That is the case for Kenya. Other countries have incentives explicitly directed to the SME segment. That is the case of Jamaica and Thailand. Some SME exchanges consider these reductions to be key to their success. For example, Thailand introduced tax incentives for issuers on its main board and SME exchange in 2001 by reducing the corporate income tax rate for listed firms (from 30 percent to 25 percent on the main board and to 20 percent on the SME Exchange, Mai) and saw a spike in listings. Thai officials designed the incentives to reduce over time, once the Mai board had established a track record of successful SME offerings. During the first phase of tax breaks the MAI board grew from 3 to 60 listings.

Source: World Bank elaboration based on information from Schellhase 2017.

**Studies on the impact of these tax incentives are limited.** To some extent this is because the use of tax incentives is relatively new and until recently very few countries had implemented them. Data and analysis are available for individual schemes, but such analysis is not directly comparable with studies conducted in different jurisdictions. Instead of trying to quantify the impact, a recent study of the effectiveness of tax incentives in the VC industry in Europe identified a set of best practices in structuring these incentives based on an analysis of the scope, qualifying criteria, administration, generosity, and stability of the schemes.<sup>56</sup>

**In some countries, tax incentives have also extended to equity investments in SMEs listed on SME exchanges.** The reasons for providing these incentives are similar to those stated for venture capital, in terms of the existence of market failure that has created a financing gap for SMEs and thus the need to align investors' risk-return appetite. Countries that offer tax incentives for investments in listed SMEs include France, India, Poland, Spain, and the United Kingdom.

**Tax incentives for the companies (issuers) themselves are less common.** They are given to encourage new listings and to offset the costs of listing for SME issuers, for whom they are disproportionately high—thereby expanding SME access to capital. Many exchanges have concerns that these incentives would attract companies that are mainly interested in avoiding taxes but are otherwise not ready or suitable for listing on an exchange. If the quality of companies coming to market is poor, the reputation of the exchange could be damaged. Some tax authorities are concerned about the loss of immediate tax revenues through tax incentives, while others consider that the increased transparency and the potential for growth of listed firms (versus those that lack access to such capital) will lead to an increase in tax revenues in the medium to long term once the tax incentives have expired and firms have grown. This is a decision that needs to be weighed by policy makers. Tax incentives for the companies themselves exist in countries such as Kenya, Malaysia, and Thailand.

**Overall, tax incentives in connection with fixed income issuances by SMEs do not seem to be used often.** Italy does offer incentives in connection with the minibonds, by applying a withholding tax exemption to the minibonds and the funds that invest on them,<sup>57</sup> and offering tax relief through a “substitute tax.”<sup>58</sup> From an issuers' perspective, in general tax systems provide an incentive to rely on debt versus equity, because the interest paid is usually deductible for purposes of the income tax.

## Other types of interventions

**Other forms of interventions by governments include investments in the creation of electronic platforms for fundraising.** This form of intervention has been used in Mexico and, more recently, in India. In the former, a receivable platform was created by NAFIN, while in the latter, the Small Industries Development Bank of India formed a joint venture with the National Exchange to create a receivables platform.

**An innovative program offered in the United Kingdom is a referral program.** This program created by the U.K. government requires nine of the biggest U.K. banks to pass on the details of small businesses they have turned down to three government-designated alternative platforms. These platforms, in turn, are required to share the details, in anonymous form, with alternative finance providers. Funding available through the schemes covers term lending, receivables finance, asset finance, commercial property finance, and online lenders, as well as government-backed and not-for-profit lenders. None of the three finance platforms currently designated support equity finance. It is still early to assess the effectiveness of the program. However, the initial information shows a positive (albeit modest) impact.<sup>59</sup>

**Softer forms of intervention include information programs.** While many governments have programs to support SMEs including through interventions such as those described above, in many cases SMEs are not aware of their existence, for many reasons

including the fact that in many cases the programs are implemented by many different entities and as a result the information is dispersed. Thus, a key action needed in many countries is a consolidation of all such information, both with a view of ensuring that SME

are aware of the programs available to them, but also with the complementary purpose of understanding where gaps or overlaps exist. An example of such efforts was the first Report produced by the Kingdom of Morocco (see box 6.2).

### Box 6.2: The importance of consolidating information: The experience of Morocco

The public authorities in Morocco have begun a project of elaboration of a national financial inclusion strategy to define priorities and coordinate the actions and contributions of the different stakeholders. In this context, and in order to promote the financial inclusion of start-ups, self-entrepreneurs, and very small, medium and small enterprises, the Ministry of Economy and Finance developed the first edition of an annual compendium intended to consolidate and present all the instruments of support for start-up and small and medium enterprise (SME) financing offered in Morocco. The government developed the program in consultation with various partners and with the support of Germany (through GIZ).

Several ministerial departments have set up different financing instruments dedicated to start-ups and SMEs directly or through trusteeships, some of which are backed by sectoral development programs. The objectives targeted through the compendium were (a) strengthening communication and dissemination of projects and products, (b) improving the knowledge and visibility of different public and private sector stakeholders, and (c) contributing to a better convergence of stakeholders' efforts. It is expected that the compendium will be integrated and disseminated as part of an interactive digital platform, under construction, that will be dedicated to supporting financing for SMEs.

The compendium provides start-ups and micro, small, and medium enterprises with information related to

- The type of instruments available to provide financing and support to SMEs, including financing, investment subsidies, loans, and guarantees
- The organizations that provide each type of finance or support, with their address, references of services, and people to contact either directly (telephone, email, or postal) or by way of a search on a website.

Source: World Bank elaboration based on information from Royaume du Maroc 2018.



Axis Title  
600  
500  
400

	A	B	C
S1	170	275	150

**MARKET**



## Conclusions

**The experiences reviewed indicate that capital markets solutions can play a larger role in SME financing than what has been traditionally the case.** To achieve this, nontraditional solutions need to be part of the toolkit—both indirect solutions that offer refinancing facilities to SME lenders and direct solutions that offer SMEs direct access to capital markets through mechanisms different from a straight/traditional public offering of securities. The research also suggests that the potential to develop channels that provide SME access to credit and working capital is greater than for access to equity financing. In principle, equity solutions require both that SMEs open their capital to outside shareholders, which many SMEs are reluctant to do because of their family structure, and that investors demonstrate a much higher risk appetite than many do.

**However, in the majority of EMDEs most of these solutions have not yet appeared or are at an early stage of development.** To leverage the solutions analyzed in this report, EMDEs have significant work to do:

- First, government authorities need to continue working to improve the preconditions necessary for capital markets to develop, because most of the solutions require a certain level of development of the capital markets. Although some of the fintech solutions do not seem dependent on the existence of a capital market, they do require that certain basic preconditions necessary for capital markets to develop are in place. Further, to scale up the solutions require a sizable investor base.
- Second, government authorities need to work to develop appropriate regulations to support these

solutions, including regulations for the products and conduct obligations for the intermediaries that distribute them. In addition, authorities need to review the investment regulations of institutional investors to ensure that they are able to invest in these solutions, while at the same time the risk management requirements for fund managers need to be strengthened. In parallel, robust supervisory programs need to be in place to enable early detection and management of the risks that these solutions might pose to investor protection and financial stability.

- Third, government authorities need to consider whether additional interventions are needed to jumpstart some of these solutions. Such interventions might include (a) credit guarantees for some of the debt instruments, (b) co-investments for VC as well as for newer solutions, such as lending platforms and loan originating funds, and (c) tax incentives, mainly in relation to early equity investment. These interventions have a fiscal impact and, as a result, it is critical that government authorities determine before implementation what assistance is needed and whether a specific intervention planned is the best tool to address the market failure identified. The interventions should also be set in a way that allows for the assessment of their impact. In addition, other softer interventions must be considered, including information and capacity building for different stakeholders.
- Fourth, market participants need to ensure that the necessary components of market infrastructure are in place, in some cases with support from the government. Technology is of particular

importance for all of the solutions described but especially for newer solutions such as electronic platforms for fundraising.

- Fifth, because the tasks are complex and involve many different stakeholders, there is a need to prepare comprehensive strategies for the development of capital markets solutions for SME financing that set a clear prioritization of actions. These strategies should be well articulated into comprehensive strategies for SME access to finance on the one hand and capital markets development strategies on the other. On the former, many of the solutions that address SME access to finance leverage traditional funding sources, and thus it is critical that the strategies are well articulated into SME finance strategies and also more generally into comprehensive SME development strategies that rely on a clear understanding of the interplay between addressing financing limitations and overcoming other obstacles to firms' performance. On the latter, many of the capital market solutions require that a capital market with a certain level of development already be in place, thus authorities need to be careful in assessing which solutions could work in their jurisdictions. It is likely that in less developed EMDEs, only solutions that require very basic preconditions, such as lending and receivable platforms, might initially be feasible.
- Six, government authorities need to start collecting data on SMEs and their financing channels to anchor these strategies. In many countries, particularly in AEs, governments have developed frameworks to collect quantitative data on SME access to finance, including by conducting surveys on SMEs and their lenders. However, such efforts usually focus on traditional banking finance, while the evidence about alternative instruments, including those reviewed in this report, is more fragmented.

**Development institutions should continue to support EMDE governments as they seek to mobilize private sector funding to SME financing via capital markets solutions.** This assistance can encompass support in preparing and implementing the

strategies mentioned, along with capacity building. The support should be anchored in a comprehensive analysis of the SME financing gap in a country, with a view to ensuring that market-based solutions enhance competition and complement bank funding, as appropriate. To the extent possible, policy advice should be complemented with transaction support, so that one reinforces the other. Furthermore, transactions should be structured in a way that brings additional private sector funding to SME financing. MDBs should periodically assess the impact and replicability of different transaction solutions being tested and share information accordingly. Likewise, MDBs could assist EMDEs in periodically evaluating the effect that government interventions are having in expanding SME financing via market-based solutions.

**More time and analysis are needed to assess the role that these new solutions can have in financial inclusion.** Existing analysis has focused on electronic platforms, given the hypothesis that they could have a more significant role in financial inclusion because of their characteristics. At the global level, the research conducted by the World Bank did not find that these platforms are developing in the countries where they are needed the most—that is, where the size of their credit and equity gaps are greatest. Nevertheless, it is early to assess whether these trends will remain. At the country level, third-party research conducted on individual platforms concluded that some percentage of the clients that use such platforms are unbanked clients. However, such findings cannot be extrapolated. Furthermore, data from the CCAF suggest that the patterns on the use of these platforms by banked, underbanked, and unbanked clients differ significantly on a country basis.

**The World Bank plans to continue enhancing its capacity to assist countries in mobilizing capital markets solutions for SME financing.** In this context, the World Bank plans to (a) develop a policy note on the topic, along with (b) a toolkit that practitioners can use as a starting point to assess the potential of different capital markets solutions to be implemented in a particular jurisdiction, and to (c) delve deeper into the financial aspects of these solutions compared with banking solutions.

## The SME Equity Gap

A long-standing debate in SME finance is the measurement of the SME finance gap—that is, the distance between the optimal and the actual level of external finance available to SMEs. Most efforts have been placed on estimating the credit gap, which is understandable given the overwhelming reliance of these firms on bank loans. However, the same concern applies to the equity gap. In this context, this annex aims to fill the void by calculating the SME equity gap for a broad sample of countries. It is important to acknowledge that this is a very preliminary effort.

In this context, the calculation of the SME equity gap builds on the methodology developed by the International Finance Corporation (IFC) to estimate the credit gap.<sup>60</sup> As a first step, a benchmark was constructed relying on balance sheet data for a number of European countries, using the BACH database, from which the average equity-to-bank debt ratio for European SMEs in 2015–17 was calculated. Because BACH reports only overall equity, the European Central Bank data on European nonfinancial corporations as of 2017 was employed to eliminate the internal equity component (retained earnings) and focus on outside equity (the one of interest for

the equity gap). The resulting outside-to-total equity ratio was multiplied by the potential SME debt, as estimated by the IFC, to obtain the potential equity demand. The actual outside equity in each country was proxied by the World Federation of Exchange’s data on SME equity capitalization. The difference between actual and potential (benchmark) equity, divided by GDP, constitutes the equity gap. As seen in figure A.1 and table A.1, this gap ranges from less than 5 percent to 35 percent of GDP, with a significantly negative correlation to GDP per capita—that is, the equity gap tends to decrease as countries get richer. The phenomenon may likely have to do with the fact that GDP per capita, institutional quality, and better investor protection (a necessary precondition for equity contracts to flourish) tend to go hand in hand.

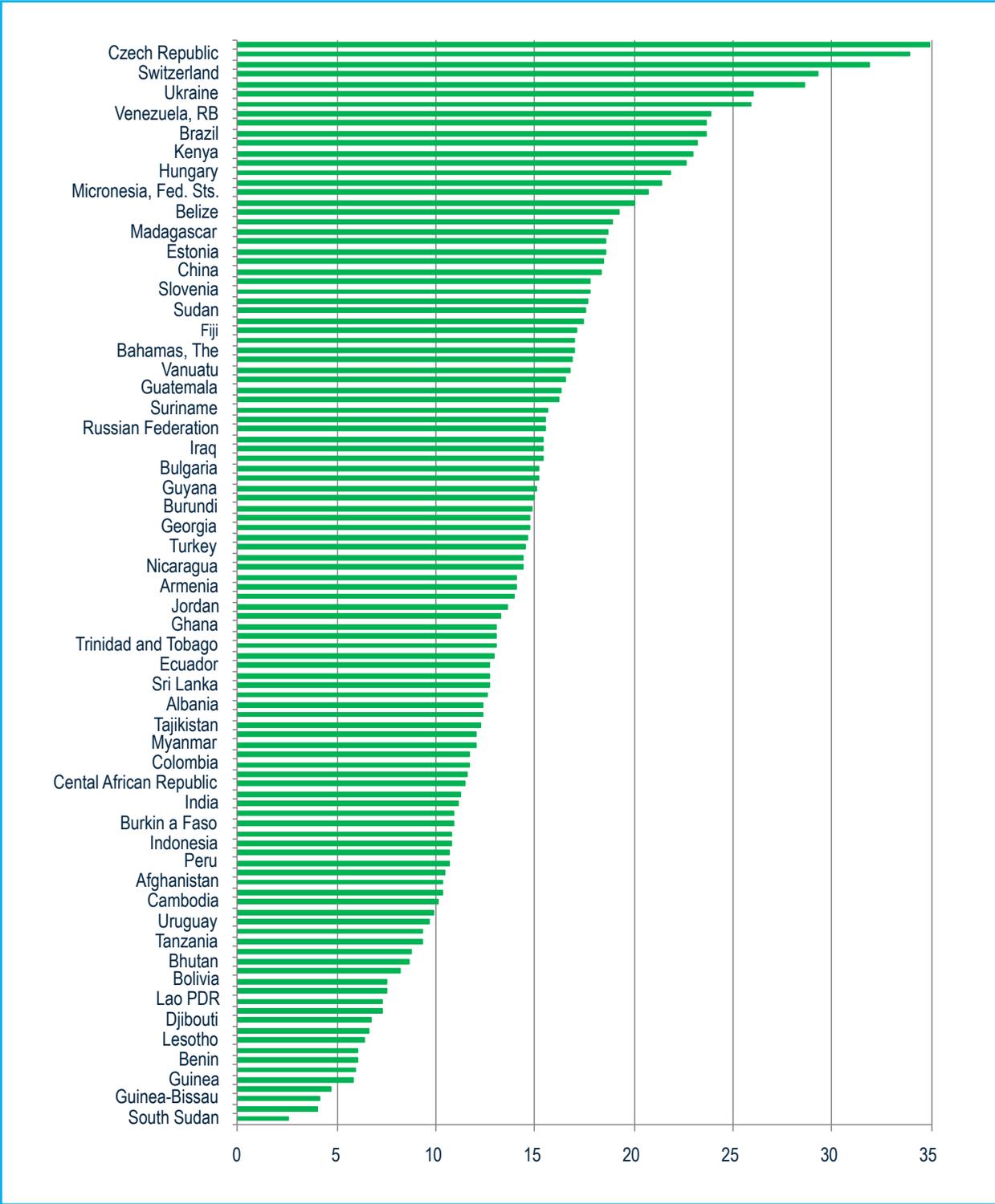
The equity gap shown in figure A.1 focuses on the outside equity raised through public markets—in particular, via specialized SME boards created to facilitate the entry of smaller firms. Table A.1 adds other forms of SME equity, such as crowdfunding and venture capital, to compute a more comprehensive measure of the supply currently available, which amounts to just 11.7 percent of the potential demand for equity.

**Table A.1: Equity current supply and gap in 2017 in emerging markets and developing economies, in US\$ millions**

Instrument	Volume
SME equity raised	35,779
Equity crowdfunding	276
Venture capital	423,326
Current supply	459,381
Equity gap	3,921,797
<b>Current supply to equity gap (%)</b>	<b>11.7</b>

Source: World Bank elaboration based on data from International Finance Corporation, Organisation of Economic Co-operation and Development, World Federation of Exchanges, and Cambridge Centre for Alternative Finance.

Figure A.1 Ratio of SME equity finance gap to GDP, data as of 2017 (%)



Source: World Bank estimations.  
 Note: GDP = gross domestic product; SME = small and medium enterprise.

## Importance of Alternative Platforms

**Table B.1: Total alternative platforms volumes, by region, in US\$ billions**

Region	Crowdfunding	Invoice trading	P2P total	P2P business	P2P consumer	Total volume
East Asia & Pacific	0.31	5.78	323.15	98.02	225.13	361.60
Europe & Central Asia	0.67	1.62	6.48	3.07	3.41	11.84
East Asia & Pacific (without China)	0.08	0.17	1.29	0.59	0.69	3.32
Latin America & Caribbean	0.01	0.16	0.26	0.08	0.18	0.69
Middle East & North Africa	0.13	0.01	0.14	0.02	0.11	0.34
North America	0.25	0.11	16.20	1.44	14.76	43.64
South Asia	0.02	0.00	0.13	0.03	0.10	0.28
Sub-Saharan Africa	0.00	0.00	0.05	0.02	0.04	0.08
Total	1.38	7.68	346.41	102.69	243.72	418.47

Source: World Bank elaboration based on CCAF database on alternative finance.

Note: P2P = peer to peer.

**Table B.2: Total alternative platforms volumes, by economic category, in US\$ billions**

Country Group	Crowdfunding	Invoice trading	P2P total	P2P business	P2P consumer	Total volume
Advanced countries	1.11	1.89	23.57	5.02	18.55	58.52
EMDE	0.28	5.79	322.84	97.68	225.17	359.95
EMDE (without China)	0.05	0.19	0.98	0.25	0.74	1.68

Source: World Bank elaboration based on CCAF database on alternative finance.

Note: EMDE = emerging markets and developing economies; P2P = peer to peer.

**Table B.3: Total alternative platforms, by region, in percentage of total world volumes**

Region	Crowdfunding	Invoice trading	P2P total	P2P business	P2P consumer	Total volume
East Asia & Pacific	0.07	1.38	77.22	23.42	53.80	86.41
Europe & Central Asia	0.16	0.39	1.55	0.73	0.81	2.83
East Asia & Pacific (without China)	0.02	0.04	0.31	0.14	0.17	0.79
Latin America & Caribbean	0.00	0.04	0.06	0.02	0.04	0.16
Middle East & North Africa	0.03	0.00	0.03	0.01	0.03	0.08
North America	0.06	0.03	3.87	0.34	3.53	10.43
South Asia	0.00	0.00	0.03	0.01	0.02	0.07
Sub-Saharan Africa	0.00	0.00	0.01	0.00	0.01	0.02
Total	0.33	1.84	82.78	24.54	58.24	100.00

Source: World Bank elaboration based on CCAF database on alternative finance.

Note: P2P = peer to peer.

**Table B.4: total alternative platforms, by economic category, in percentage of total world volumes**

Country Group	Crowdfunding	Invoice trading	P2P total	P2P business	P2P consumer	Total volume
Advanced countries	0.26	0.45	5.63	1.20	4.43	13.98
EMDE	0.07	1.38	77.15	23.34	53.81	86.02
EMDE (without China)	0.01	0.05	0.23	0.06	0.18	0.40

Source: World Bank elaboration based on CCAF database on alternative finance.

Note: EMDE = emerging markets and developing economies; P2P = peer to peer.

# Empirical Research on Alternative Finance: Impact and Key Preconditions

This annex seeks to contribute to deepening the understanding of (a) the impact that alternative finance mechanisms, and in particular electronic platforms for fundraising such as those analyzed in this report, can have in closing the SME financing gap and increasing financial inclusion and of (b) key preconditions for their development.

Overall, electronic platforms have the potential to contribute to closing the SME financing gap by improving SMEs' access to finance (in this case, by accessing capital markets investors).<sup>61</sup> However, the existing empirical research on their actual impact, including in connection with financial inclusion, is still scarce, as expected in a nascent industry. Recent studies and surveys show that fintech solutions are able to expand the frontiers of financial inclusion. In the United Kingdom, CGFS and FSB (2017) find in a survey that 79 percent of the P2P borrowers had previously applied to a bank loan, but only 22 percent had not been turned down. Jagtiani and Lemieux (2018), in assessing the LendingClub platform, conclude that borrowers that were not eligible based on the usual FICO score were granted a loan using the internal rating and displayed good repayment behavior afterwards. Frost and others (2019) report similar evidence for the Mercado Crédito platform in Argentina. Arráiz and others (2018) implement an experiment in Peru and find that firms with thin files that are approved on the basis of psychometric scoring become better able to borrow.

Despite this promising research, more work is needed to state conclusively that alternative finance is substantively pushing financial inclusion. For example, little is known about the characteristics of

the whole alternative finance portfolio (as opposed to a few specific platforms and experiments) in each country, in particular whether the majority of clients are first-time borrowers or recurring formal credit users. In this regard, data from the CCAF at a country level suggest that the patterns on the use of these platforms by banked, underbanked, and unbanked clients differ significantly from one country to another (CCAF 2019, 2018a, 2018b, 2018c).

In terms of preconditions, Rau (2019) studies more than 3,000 crowdfunding platforms in 161 countries and asserts that they are more likely to emerge in countries with larger GDP and better institutions (rule of law, common law, control of corruption, and so on). Claessens and others (2018) look at 63 countries and uncover a positive but decreasing relationship between business fintech credit and GDP per capita.

## Working Hypotheses and Data

To contribute to information on those topics, the World Bank conducted empirical research using four sets of regressors: (a) *macroeconomic variables*, including the GDP level (total and per capita) and growth rate, to test whether platforms are more likely to appear in larger, richer and faster-growing economies; (b) *financial variables*, including the ratios of private credit and stock market capitalization to GDP, to test whether platforms are more likely to appear in countries with high or low initial financial depth; (c) *institutional variables*, comprising the rule of law, legal rights protecting creditors and minority shareholders and the effectiveness of the legal framework as measured by the time and cost of enforcing contracts and resolving insolvency to test whether institutions matter, as they

do for banks and traditional capital markets solutions, for the investors that invest through these platforms; and (d) *financial constraints variables*, to test whether the platforms are developing in the countries with the greatest financial constraints.<sup>62</sup> For purposes of this exercise the variables listed in table C.1 have been used as a proxy for financial constraints, on the understanding that this is an area in which there is still much controversy (See Farre-Mensa and Ljungqvist, 2016; Bebczuk 2018).

The CCAF’s database on alternative finance has been used for this exercise. The exercise covers a maximum of 159 countries over the period 2013–17. Because these are flows and not stocks (which are usually much more stable than flows), to mitigate data noise the dependent variable is the average, scaled by population, over this five-year period. Furthermore,

because most of the driving factors display little variance over time, a cross-country dataset was used. The regression analysis relies on the ordinary least squares (OLS) technique, with the explanatory variables measured as 2010–12 averages.<sup>63</sup> The analysis covers three instruments in particular: P2P lending—total, to consumers and to businesses—equity crowdfunding, and invoice trading, which have been the focus of this report.<sup>64</sup>

The summary statistics in table C.2 reveal (a) a sharp difference between the mean and the median for most variables, as well as high variances (despite low volumes in many other countries, this difference is largely due to the dominant position of China, which holds 86 percent of world volumes), and (b) a less widespread presence across countries of business versus consumer-oriented alternative finance.

**Table C.1: Country-level Proxies for Financial Constraints**

Measure	Definition	Internet	Address
SME credit gap	Difference between potential SME credit demand (based on advanced countries’ benchmark) and actual availability in the country	SME Finance Forum	<a href="https://www.smefinanceforum.org/data-sites/msme-finance-gap">https://www.smefinanceforum.org/data-sites/msme-finance-gap</a>
SME equity gap	Similar methodology for the credit gap	World Bank elaboration	
Credit bureau coverage	Number of firms and individuals, as a percentage of the adult population, listed in a credit bureau, regardless of whether they have debt or not	World Bank’s Doing Business	<a href="http://www.doingbusiness.org">www.doingbusiness.org</a>
Bank interest margin	Accounting value of bank’s net interest revenue as a share of its average interest-bearing assets	World Bank’s Global Financial Development Database	<a href="https://www.worldbank.org/en/publication/gfdr/data/global-financial-development-database">https://www.worldbank.org/en/publication/gfdr/data/global-financial-development-database</a>
Bank lending-deposit spread	Difference between the lending rate and the deposit rate	World Bank’s Global Financial Development Database	<a href="https://www.worldbank.org/en/publication/gfdr/data/global-financial-development-database">https://www.worldbank.org/en/publication/gfdr/data/global-financial-development-database</a>
% of credit-constrained SMEs	Percentage of firms in the survey identifying access to finance as a major constraint	World Bank’s Enterprise Surveys	<a href="http://www.enterprisesurveys.org/">http://www.enterprisesurveys.org/</a>
% of SME investment financed with bank credit	As reported by firms participating in the survey	World Bank’s Enterprise Surveys	<a href="http://www.enterprisesurveys.org/">http://www.enterprisesurveys.org/</a>
% of SME investment financed with internal funds	As reported by firms participating in the survey	World Bank’s Enterprise Surveys	<a href="http://www.enterprisesurveys.org/">http://www.enterprisesurveys.org/</a>

Note: SME = small and medium enterprise.

Table C.3 shows the average degree of financial constraints in countries with levels of private credit and stock capitalization above and below the world median. Overall, the table leads to the conclusion that financial deepening has little to do with the degree of financial constraints. In the case of market capitalization, most differences turn out to be insignificant. In the case of private credit, although six of eight financial constraints proxies display the expected sign and are significantly different, the economic effect appears to be oddly low in some cases. For instance, the mean private credit ratio to GDP is 82.6 percent (21.1 percent) for countries above (below) the world median. However, as an example, the difference in the percentage of SME investment financed with credit is just 8.6 percentage points (22.7 percent against 14.1 percent). Furthermore, despite the fact that the private credit ratio is about four times higher in the first group, the difference in credit gap and percentage of credit-constrained SMEs is not significant.

Table C.4 shows that the correlation between the various proxies of financial constraints is quite low, with the exception of those based on the same kind of data, such as interest margin and interest spread, credit gap and equity gap, and the percentage of investment financed with credit and with internal funds.

The correlation of the alternative finance measures with all the proposed explanatory variables is presented in table C.5. Correlations display the expected sign and are significant for the most part in the macrofinancial and institutional block, although the average correlation is just 20 percent and only the one with total GDP exceeds 50 percent. In turn, the majority of the correlations with the financial constraints proxies are insignificant.<sup>65</sup>

## Results

Starting from a baseline specification containing the GDP level and growth as well the level of private credit to GDP, tables C.6 through C.11 display the regressions for the alternative finance instruments analyzed.<sup>66</sup> The results can be summarized as follows:

- GDP enters positively in several equations, but the effect vanishes once a dummy for China is included.
- GDP growth also delivers a positive and significant estimate in a few cases, but the effect substantially weakens after including the China dummy.
- Credit depth exerts a strong and positive effect, which in this case is reinforced after controlling for China.
- As expected, when stock market capitalization replaces private credit as the measure of financial depth, the former is significant only for equity crowdfunding (that is, not for the other, debt-based vehicles).
- GDP per capita does not appear to add any explanatory power.
- Institutional quality plays a significant role on the development of alternative finance. Although not all of the institutional measures are significant for all instruments, at least one is (rule of law).
- None of the financial constraint proxies were statistically significant. The only variable yielding a significant coefficient is the percentage of credit-constrained SMEs. However, for most of the categories, the sign is negative, suggesting that alternative finance is more likely to emerge where it is a priori needed the least.

**Table C.2: Alternative finance volumes: Summary statistics, in US\$, as % of total population, 2013–17 averages**

Variables	Number of Countries	Mean	Median	Standard Deviation
Total volume	159	354	11	1287
Total P2P	105	322	11	1139
Business P2P	66	153	26	458
Consumer P2P	98	278	15	885
Equity crowdfunding	60	54	2	149
Invoice trading	38	164	30	274

Note: P2P = peer to peer.

**Table C.3: Financial depth and financial constraints variables**

Variables	Number of countries	Mean	Median	Standard deviation	Mean values above and below world median Private credit to GDP			Mean values above and below world median Stock market capitaliz. to GDP		
					Above	Below	Diff.	Above	Below	Diff.
Private credit to GDP	170	51.9	40.5	40.4	82.6	21.1	61.5	85.5	51.0	34.5
Stock market capitalization to GDP	105	46.2	30.6	43.9	54.2	23.9	30.3	76.6	15.3	61.4
Credit gap to GDP	120	14.1	13.4	9.5	13.1	15.1	-2.0	12.0	14.0	-2.0
Equity gap to GDP	112	14.3	14.0	6.6	16.4	13.2	3.2	13.8	15.0	-1.1
Credit bureau coverage	180	23.5	0.8	33.6	36.2	9.7	26.5	40.1	32.9	7.2
Bank net interest margin	178	4.7	4.5	2.5	3.4	6.1	-2.7	3.1	5.1	-2.0
Bank lending-deposit spread	128	7.2	6.0	5.3	5.4	8.7	-3.4	5.7	6.7	-1.1
% of credit constrained SMEs	132	24.9	21.7	16.9	21.6	26.7	-5.1	18.7	21.4	-2.7
% of SME investment financed with credit	132	17.3	16.5	11.8	22.7	14.1	8.6	21.6	19.6	2.0
% of SME investment financed with internal funds	132	68.9	69.6	14.7	64.5	71.3	-6.8	65.3	64.8	0.4

Note: Mean differences significant at 5% or less in bold; GDP = gross domestic product; SME = small and medium enterprise.

**Table C.4: Financial constraints proxies: correlation matrix**

	Credit gap to GDP	Equity gap to GDP	Credit bureau coverage	Bank net interest margin	Bank lending-deposit spread	% of credit-constrained SMEs	% of SME investment financed with credit
Equity gap to GDP	0.8315						
Credit bureau coverage	0.0364	0.1472					
Bank net interest margin	0.1007	-0.104	-0.2625				
Bank lending-deposit spread	0.097	-0.0169	-0.1752	0.463			
% of credit-constrained SMEs	-0.1217	-0.2046	-0.2673	-0.1801	0.0571		
% of SME investment financed with credit	-0.0805	0.0239	0.2932	-0.047	-0.0472	-0.0875	
% of SME investment financed with internal funds	0.1058	0.0415	-0.2305	-0.0377	-0.0563	0.0501	-0.7767

Note: Correlations significant at 5% or less in bold. GDP = gross domestic product; SME = small and medium enterprise.

**Table C.5: Alternative finance volumes: correlations with proposed explanatory variables**

	Total volume	Total P2P	Business P2P	Consumer P2P	Equity crowdfunding	Invoice trading
<b>Macro-financial variables</b>						
GDP level	0.73	0.74	0.54	0.72	0.02	-0.10
GDP growth	0.02	0.04	0.05	0.02	-0.01	-0.25
GDP per capita	0.20	0.10	0.14	0.22	0.31	0.31
Private credit to GDP	0.39	0.31	0.34	0.33	0.19	0.41
Stock capitalization to GDP	0.19	0.12	0.19	0.04	0.31	0.10
<b>Institutional variables</b>						
Rule of law	0.30	0.20	0.17	0.28	0.33	0.47
Legal rights	0.25	0.18	0.13	0.22	0.35	0.22
Investor protection	0.28	0.21	0.12	0.26	0.30	0.30
Enforcing contracts	-0.20	-0.17	-0.17	-0.24	-0.06	-0.06
Resolving insolvency	-0.24	-0.18	-0.25	-0.23	-0.16	-0.38
<b>Financial constraints variables</b>						
Credit gap to GDP	0.00	0.02	0.00	0.01	0.03	0.08
Equity gap to GDP	0.09	0.08	0.10	0.12	0.16	0.38
Credit bureau coverage	0.24	0.17	0.03	0.14	0.26	0.26
% of credit-constrained SMEs	-0.20	-0.16	-0.17	-0.23	-0.25	0.01
% of SME investment financed with credit	-0.05	-0.06	-0.12	-0.08	0.08	0.16
% of SME investment financed with internal funds	0.12	0.11	0.23	0.17	0.11	0.05
Bank net interest margin	-0.23	-0.16	-0.21	-0.22	-0.24	-0.37
Bank lending-deposit spread	-0.15	-0.12	-0.15	-0.16	-0.10	-0.16

Note: Correlations significant at 5% or less in bold. GDP = gross domestic product; SME = small and medium enterprise.

**Table C.6. Correlates of alternative finance, baseline specification**

	Total volume	Total P2P	Business P2P	Consumer P2P	Equity crowdfunding	Invoice trading
GDP level	0.456**	0.410**	0.137**	0.254**	-0.00938	-0.0122
	[0.181]	[0.160]	[0.0467]	[0.121]	[0.00592]	[0.0106]
GDP growth	30.95**	14.56**	19.19	18.60	8.748	-6.371
	[15.10]	[7.351]	[13.10]	[19.36]	[5.761]	[11.55]
Private credit to GDP	7.148**	3.060	2.439**	3.014	0.898**	2.266**
	[2.965]	[1.927]	[1.219]	[1.929]	[0.356]	[0.997]
Constant	-414.4**	-229.9**	-244.5**	-190.7	-40.64	5.692
	[143.7]	[87.61]	[103.8]	[130.8]	[32.65]	[74.67]
Observations	150	170	69	94	63	45
R-squared	0.444	0.497	0.490	0.393	0.062	0.187

Note: GDP = gross domestic product; P2P = peer to peer.

**Table C.7. Correlates of alternative finance, baseline specification, with China dummy**

	Total volume	Total P2P	Business P2P	Consumer P2P	Equity crowdfunding	Invoice trading
GDP level	0.0129	0.0133	0.0130	-0.0712	-0.0104	-0.0280
	[0.0992]	[0.0585]	[0.0311]	[0.0477]	[0.0109]	[0.0231]
GDP growth	21.92**	9.718	4.322	-10.20	8.706	-8.191
	[13.10]	[6.031]	[10.83]	[13.16]	[5.763]	[11.53]
Private credit to GDP	8.548***	4.388**	2.296*	3.993**	0.897**	2.164**
	[2.824]	[1.762]	[1.268]	[1.784]	[0.361]	[1.040]
China dummy	9296.4***	8362.3***	2532.8***	6619.9***	20.68	298.4
	[1474.1]	[851.2]	[493.7]	[561.0]	[123.3]	[303.3]
Constant	-294.0**	-153.0*	-92.31	44.25	-39.69	33.65
	[144.9]	[82.21]	[101.7]	[85.01]	[35.95]	[88.28]
Observations	150	170	69	94	63	45
R-squared	0.599	0.716	0.641	0.645	0.062	0.195

Note: GDP = gross domestic product; P2P = peer to peer.

**Table C.8: Correlates of alternative finance, baseline specification, with China dummy (not reported) and GDP per capita**

	Total volume	Total P2P	Business P2P	Consumer P2P	Equity crowdfunding	Invoice trading
GDP level	0.0117	0.0134	0.0123	-0.0732	-0.00892	-0.0267
	[0.1000]	[0.0589]	[0.0315]	[0.0490]	[0.0101]	[0.0244]
GDP growth	20.71	10.46	5.789	-9.474	8.615**	-8.365
	[13.44]	[6.670]	[9.813]	[13.77]	[4.124]	[11.35]
Private credit to GDP	8.083**	4.548**	1.860	3.497	0.287	1.584
	[3.289]	[2.003]	[1.507]	[2.340]	[0.395]	[1.215]
GDP per capita	0.00174	-0.000561	0.00207	0.00199	0.00263**	0.00249
	[0.00293]	[0.00121]	[0.00238]	[0.00457]	[0.00117]	[0.00225]
Constant	-294.5**	-154.2*	-113.4	39.33	-59.02**	10.50
	[144.4]	[83.97]	[93.53]	[86.02]	[29.14]	[78.34]
Observations	150	170	69	94	63	45
R-squared	0.600	0.716	0.645	0.645	0.126	0.211

Note: GDP = gross domestic product; P2P = peer to peer.

**Table C.9. Correlates of alternative finance, baseline specification, with China dummy (not reported) and stock market capitalization**

	Total volume	Total P2P	Business P2P	Consumer P2P	Equity crowdfunding	Invoice trading
GDP level	0.360***	0.224***	0.0127*	0.188**	-0.00259	-0.0194**
	[0.109]	[0.0666]	[0.00702]	[0.0766]	[0.00492]	[0.00741]
GDP growth	-31.57	-14.30	-15.36	-41.79	-0.0803	-32.97**
	[23.91]	[14.56]	[12.36]	[28.73]	[3.482]	[15.09]
Stock capit. to GDP	3.353	0.925	1.699	-1.419	0.951**	0.916
	[2.700]	[1.479]	[1.045]	[1.182]	[0.401]	[0.753]
Constant	141.4	82.70	65.48	364.6	2.318	236.3**
	[152.1]	[95.41]	[57.29]	[220.1]	[19.50]	[91.67]
Observations	100	105	64	69	62	45
R-squared	0.591	0.695	0.631	0.611	0.096	0.127

Note: GDP = gross domestic product; P2P = peer to peer.

**Table C.10: Correlates of alternative finance: Estimated coefficients for institutional variables, additional controls (baseline specification, with China dummy) not reported**

	Total volume	Total P2P	Business P2P	Consumer P2P	Equity crowdfunding	Invoice trading
Rule of law	259.4***	112.6**	73.72**	230.7***	72.72**	134.1**
	[84.06]	[46.07]	[35.24]	[73.94]	[27.58]	[51.14]
Legal rights	82.08***	42.08**	23.22	52.44**	20.98**	9.810
	[29.21]	[16.17]	[16.18]	[22.21]	[10.42]	[16.33]
Investor protection	105.8***	58.59**	29.84	102.7**	27.44	50.36
	[38.73]	[28.05]	[23.50]	[45.59]	[20.39]	[41.39]
Enforcing contracts	-0.295**	-0.199**	-0.136	-0.368**	0.0237	0.0308
	[0.120]	[0.0781]	[0.0826]	[0.152]	[0.101]	[0.0710]
Resolving insolvency	-84.68**	-33.69**	-37.12**	-46.80	-14.86	-64.61
	[34.39]	[20.35]	[18.47]	[28.95]	[14.11]	[44.65]

Note: P2P = peer to peer.

**Table C.11: Correlates of alternative finance: Estimated coefficients for financial constraints variables, additional controls (baseline specification, with China dummy) not reported**

	Total volume	Total P2P	Business P2P	Consumer P2P	Equity crowdfunding	Invoice trading
Credit gap to GDP	0.0821	0.710	-1.965	-1.543	0.0494	2.334
	[5.080]	[2.923]	[1.378]	[6.091]	[0.0952]	[3.037]
Equity gap to GDP	4.369	2.856	-0.0973	3.306	0.0653	1.552
	[3.731]	[2.553]	[0.599]	[3.791]	[0.0854]	[2.227]
Credit bureau coverage	4.124**	2.075*	0.678	1.331	1.012	1.518
	[2.004]	[1.253]	[0.893]	[1.605]	[0.733]	[1.257]
Bank net interest margin	-24.75	-1.462	1.643	-21.00	-25.23*	-21.57
	[30.13]	[17.13]	[20.94]	[26.08]	[14.37]	[18.75]
Bank lending-desposit spread	-1.644	-1.057	-0.296	-4.105	-1.730	-0.784
	[3.695]	[2.496]	[0.929]	[4.013]	[3.178]	[1.649]
% of credit-constrained SMEs	-4.796**	-2.639**	0.290	-3.910**	-3.036	2.814*
	[2.381]	[1.315]	[0.715]	[1.924]	[2.879]	[1.493]
% of SME investment financed with credit	-2.642	-1.344	0.690	-2.272	0.680	2.337
	[3.834]	[2.082]	[0.893]	[3.923]	[1.500]	[2.038]
% of SME investment financed with internal funds	2.714	1.289	-0.423	2.131	1.617	-0.359
	[1.697]	[0.929]	[0.502]	[1.570]	[1.457]	[1.571]

Note: GDP = gross domestic product; P2P = peer to peer; SME = small and medium enterprise.

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## Endnotes

1. This report focuses on the immediate ecosystem required for these instruments to develop. However, the need for a favorable ecosystem for “doing business” and entrepreneurship is a necessary precondition for a healthy development of capital market solutions in general.
2. In this way the report supports the G20/Organisation for Economic Co-operation and Development (OECD) High Level Principles on SME Financing and in particular Principle 3, which calls for enabling SMEs’ access to diverse nontraditional banking instruments. See G20/OECD 2015.
3. Although the report focuses on SME financing, many of the solutions described are useful also for microenterprises; in fact, some of the examples presented have microcredits as the underlying assets.
4. In 2015 the World Bank Group coordinated a note on capital markets instruments to mobilize institutional investors for infrastructure and SME financing at the request of the G20. The report did not cover equity solutions nor solutions brought by fintech, which were left for a later review. See World Bank Group, IMF, and OECD 2015.
5. By definition, this report excludes other forms of alternative financing that do not involve capital markets investors. That comprises, for example, “pure” factoring or leasing. However, some capital markets solutions that leverage asset-based financing are covered in the report.
6. In addition, the World Bank has taken into consideration available research from the OECD, which focuses on experiences in OECD countries. See, among others, Boschmans and Pissareva 2018, G20/OECD 2016a, G20/OECD 2016b, OECD 2015b, OECD 2015c, and Nassr, Kaousar, and Wehinger 2015.
7. There are no global databases with information on SME bond exchanges or SME funds. Some of the data, mainly for AEs, can be found in information from private data vendors, but the level of disaggregation is not useful for the purposes of this report. Data on private equity and venture capital were obtained from the Emerging Markets Private Equity Association (EMPEA); on SME equity exchanges, from the World Federation of Exchanges; and on platforms solutions (receivables, lending, and equity crowdfunding), from the Cambridge Centre for Alternative Finance.
8. For example, angels are a distinctive investment source that usually invests earlier than VC, invest in more geographically and sectorally diverse ranges of investees and potentially in many more businesses, often playing an active role in building the entrepreneurship ecosystems. In this context, some of the interventions to support angel investment can be different. This report mentions one type of tool (tax incentives) that applies equally to VC and angel investors. But support for angel groups, angel capacity building, and seed investment readiness are additional interventions offered either as standalones or more typically in integrated entrepreneurship development approaches.

9. For more information on the role of initial coin offerings in SME financing and their risks, see OECD 2019a.
10. According to research from IFC's MSME Country Indicators (for 2014), this is the most widely used definition by individual countries. See IFC 2017.
11. As will be explained later in this report, that advantage is now being contested given the progress made with the use of nontraditional information to assess credit risk, including the data footprint of SMEs on the internet.
12. Empirical research on the effects of Basel III on bank lending in the United States and Europe was conducted by Ben Naceur and Roulet (2017).
13. The report did note that in certain jurisdictions, Basel III's risk-based capital requirements caused SME lending to slow and lending conditions to tighten among institutions that were least capitalized precrisis relative to other banks. The report also noted that SME lending growth appears to have resumed in recent years after falling, but it remains below precrisis levels today. See Financial Stability Board (2019), Evaluation of the effects of financial regulatory reforms on small and medium-sized enterprise (SME) financing, Consultative Document.
14. Determined from a combination of the World Bank's 2015 global financial data library for insurance assets (\$26 trillion) and 2017 OECD pension data from OECD 2017 (\$28 trillion).
15. Fixed-income instruments typically play an important role in relatively lower-risk insurance portfolios. Likewise, many OECD countries have large and relatively mature pension obligations that require conservative asset allocation decision making. Fixed-income instruments also play an important diversifying role in almost all these portfolios, regardless of risk appetite. In the current environment, however, the dependable yield previously available from this portion of the portfolio has steadily decreased.
16. Overall pension funds have increased investments in alternative asset classes such as private equity, real estate, and infrastructure, which often involve long-term lock-up periods and significant embedded leverage. Life insurers have also increased their holdings of lower-rated and long-duration bond investments. See IMF 2019, chap. 3, "Institutional Investors."
17. These assets include loans, land and buildings, unallocated insurance contracts, hedge funds, private equity funds, structured products, other mutual funds (that is, those not invested in equities, bills and bonds, or cash and deposits), and other investments.
18. To some extent, banks' investments in plain vanilla issuances can foster SME financing, particularly in cases in which a bank's business model caters to SMEs. However, for purposes of this report, the emphasis is on issuances by specialized SME lenders because the connection is clearer.
19. The exception would be if they are placed via a private placement. In some EMDEs some types of institutional investors are prohibited from investing in securities that are not public offerings.
20. In Germany, the KfW Promise synthetic securitization program, which had government support, was instrumental for the development of the German securitization market. However, Germany issuance of SME ABS collapsed after 2010, when changes in Basel rules made the KfW program uneconomic. See Armstrong and Ebell 2015.
21. The Italian securitization market shows interesting features, including the use of multi-origination platforms. However, most of the successful multi-origination transactions involve originators that belong to the same banking group—although the participating

- banks act as separate entities, often with distinctive characteristics of their portfolios and different operating standards related to loan origination and servicing procedures.
22. See BCBS 2016. The document was later affected by BCBS 2017. Also see Flunder, Schlösser, and Weber 2018.
  23. See Aiyar and others 2015; Armstrong and Ebell 2015; and Kraemer-Eis and others 2015.
  24. The FSB has made recommendations regarding the securitization markets generally, in particular the need for improvements in standardization and transparency and the imposition of retention requirements. In tandem the Basel Committee on Banking Supervision (BCBS) and the International Organization of Securities Commissions (IOSCO) worked on a definition of a “high quality securitization” to which beneficial regulatory treatment could be associated. See BCBS and IOSCO 2015 and 2018.
  25. Anecdotal evidence suggests that in this scenario, synthetic securitization might be an important tool for banks that, depending on how it is structured, could also provide benefits to SMEs. For example, SMEs could benefit from securitization if a bank were to use part of the capital freed to continue lending to SMEs.
  26. However, the China Bank Regulatory Commission (CBRC) introduced additional prudential requirements for this type of entity, which in practice led to a decline in the use of SME loan securitization.
  27. This feature has recently been taken a step further through the Covered Bond Label initiative, which aims to have a broader international standard, creating a truly global pool of investable assets that investors can fund with confidence.
  28. For example, in the EU for 2014 the average payment period was 54 days for the public sector and 48 days for private companies. There was, however, significant variation among countries. In the case of public sector buyers, payment periods ranged from 144 and 103 days for Italy and Spain to 18 and 15 days for Latvia and Lithuania, respectively. In the case of private buyers, payment periods ranged from 85 and 80 days in Cyprus and Italy to 17 and 15 days in Germany and Lithuania, respectively. See European Commission 2016.
  29. The consequences of late payments for SMEs have prompted different countries to enact laws of “prompt payment.” The European Union is the key example; but some Latin American countries are following suit, starting with Chile, and similar laws are being considered in Colombia and Peru.
  30. In some countries factoring is used to refer to the sale of the whole ledger of receivables, while invoice discounting is used to refer to the selective sale of receivables. In this report, the terms are used interchangeably to encompass mechanisms to obtain liquidity based on the sale of receivables, whether selectively or whole ledger, with or without recourse.
  31. Increasingly, reverse factoring is associated with supply chain financing, whereby large companies have lines of credit with financial institutions (usually banks) to pay off their short-term obligations to the SMEs that provide them good and services. The large company chooses the SMEs whose receivables would be paid (bought) by the banks. The banks, in turn, define the terms at which they buy the receivables from the SMEs; the terms are usually better than those that the SME would be able to obtain on its own credit standing. From the large company’s perspective, supply chain financing allows it to, at a minimum, ensure the health of its supply chain, but it also leads to an extension of payment terms for the large company (through the bank) and, depending on the relationship between the company and its bank, it can

also lead to rebates (based on the difference between the rate of its line credit and the terms offered to the SME). See ACCA 2014.

32. The definition is intentionally broad, in terms of encompassing as SME platforms both those that target consumers and those that target businesses. Experience indicates that a portion of consumer loans are dedicated by people to starting a business. That is why for the purposes of this report, both are included in the statistics and analysis.

33. There are no uniform labels to refer to these funds. The labels used in this report are aligned with the IOSCO Survey on Loan Funds (IOSCO 2017). But other terms are used to identify them. For example, “co-origination funds” and “specialized loan funds” are used by Kraemer-Eis and others 2014 to refer to the same funds.

34. IOSCO conducted a survey on SME loan funds in 2017 and received responses from 24 jurisdictions: Australia; Belgium; Brazil; Canada (Ontario and Québec); China; France; Germany; Hong Kong SAR, China; India; Ireland; Israel; Italy; Japan; Jersey; Luxemburg; Portugal; Romania; Saudi Arabia; Singapore; Spain; Switzerland; Turkey; United Kingdom, and United States. Of those jurisdictions, 14 allow loan originating funds: Australia; Belgium; France; Germany; Hong Kong SAR, China; Ireland; Italy; Jersey; Luxembourg; Singapore; Spain; Switzerland; United Kingdom, and United States. Seventeen allow loan participating funds: Australia; Belgium; Brazil; Canada (Ontario and Québec); France; Germany; Hong Kong SAR, China; Ireland; Italy; Japan; Jersey; Luxembourg; Singapore; Spain; Switzerland; United Kingdom, and United States. See IOSCO 2017.

35. For information on the European private placement markets see Nassr and Wehinger 2015.

36. See for example the platform DealSquare in Canada, and the platform developed

by the London Stock Exchange in connection with its Elite Program (box 5.2).

37. For European SME bond platforms, see ESMA Securities and Markets Stakeholders Group 2017 and Nassr and Wehinger 2015. As explained in this report, in some EU countries these platforms are open only to professional investors, while in others they are open to both retail and professional investors.

38. See ESMA Securities and Markets Stakeholders Group 2017 and Nassr and Wehinger 2015.

39. Approximately one-fifth of all minibonds issued in the bondm segment ultimately defaulted between May 2010 and November 2014, losses which may have contributed to the shutdown of the market. These defaults came as a surprise to retail investors given the initial favorable ratings that these bonds had and the perception that they were the hidden champions of Germany’s economy. See Schweizer, Proelss, and Mietzner 2015..

40. This refers to equity investments that do not take place through friends and family financing.

41. For example, the introduction of CKDs (Certificados de Capital de Desarrollo) in 2009 led to growth in PE/VC funds from US\$574 million in 2009 to US\$2.1 billion in 2015. The creation of a more flexible vehicle for investment in PE/VC funds, the CERPIs (Certificados de Proyectos de Inversion), appears to have prompted a surge in listings on the stock exchange. By the third quarter of 2018 alone, US\$1.5 billion had been raised via four CERPIs. See EMPEA 2016.

42. Per EMPEA methodology, this figure includes all African countries, including North Africa; Asia Pacific, excluding Australia, Japan, and New Zealand and including Afghanistan and Pakistan; European Union accession countries (2004); Southeastern Europe (excluding

- Greece) and Turkey, as well as Russia and other Commonwealth of Independent States countries; Mexico, Central and South America, and the Caribbean (excluding Puerto Rico and other overseas territories and departments); Gulf Cooperation Council countries, Iran, Iraq, Jordan, Lebanon, Palestinian Territories, Syria, and Yemen.
43. For additional information on the type of adjustments made to disclosure, corporate governance and performance requirements see Harwood and Konidaris 2015.
  44. It must be noted that many of the 299 SMEs listed on the Bucharest Stock Exchange AERO market were required to list as a result of the mass privatization of the 1990s. They are unable or unwilling to meet the requirements of the main market.
  45. Prima facie private offerings do not require the same level of development of capital markets; however, their scalability does seem to depend on having more traditional mechanisms to provide exit to investors (platforms).
  46. Peru provided this role to the central securities depository, but other options might include assigning this function to the credit collateral registry.
  47. For an analysis of the regulatory approach and state of regulation of both lending platforms and securities-based platforms, see World Bank Group and CCAF 2019.
  48. A recommendation regarding a framework for loan originating funds can be found in ESMA 2016.
  49. Only eight countries globally do not impose any ceiling on pension fund investments for asset classes: Australia, Belgium, Canada, the Netherlands, New Zealand, the United Kingdom, and the United States in the OECD, and Malawi. See OECD 2018b.
  50. For example, in the context of AEs, the International Monetary Fund has called for policy makers to address the buildup of vulnerabilities that results from increased holdings of riskier and more illiquid assets by institutional investors through appropriate incentives, minimum solvency or liquidity standards, and enhanced disclosures. See IMF 2019, chap. 3.
  51. In general, monetary disputes are considered part of the contractual relationship between the investor and the companies to which they provide funding (issuers) or the intermediaries that assist them in their investments (brokers, advisors, and so on). In a few countries, mostly AEs, supervisory authorities have been given disgorgement and restitution powers which comprise the power of the supervisory authority to take back money illegally obtained by a participant and return it to the victim, as part of an enforcement proceeding. The exercise of these powers requires a high level of maturity of the legal system as well as resources.
  52. In the case of the United States, the guarantee is given for the origination of SME loans. However, the market started to securitize the guaranteed portion of the loans.
  53. A set of principles has been developed in connection with public credit guarantee schemes. See the World Bank and FIRST Initiative 2015.
  54. The World Bank's forthcoming "Innovation Instrument Guide" contains a detailed discussion of government programs to support VC.
  55. For information on government programs to foster VC, see Murray and others 2012; Colombo, Cumming, and Vismara 2014; Wilson 2015; and Owen, North, and Mac an Bhaird 2019.
  56. The study found 46 schemes in 36 countries, which were ranked according to these best practices. "The highest ranked scheme is United Kingdom's Seed Enterprise Investment

Scheme. SEIS provides individuals making investments in young companies with an upfront tax credit, a capital gains tax deferral for reinvestment, a capital gains tax exemption for chargeable gains realised on disposal and loss relief on more favourable terms than the baseline tax system for capital losses realised on disposal. The scheme's ranking was driven by high scores across scope, qualifying criteria and administration. SEIS uses a combination of age, size and specific sector exclusions to target entrepreneurial firms. It restricts the participation of related parties, but has introduced allowances for business angels. It targets newly issued ordinary share capital, imposing a maximum investment value attracting tax relief and a minimum holding period. In terms of administration, SEIS is administered on a non-discretionary basis and is subject to transparent annual monitoring of fiscal costs.” See European Commission 2017, 4.

57. The withholding tax generally applies to interest and other amounts paid in relation to bonds, certain other securities, and promissory notes. Article 32 of the Development Decree established an exemption to the 20 percent withholding tax for payments made on bonds issued by nonpublicly traded Italian companies provided that the securities are listed on a regulated market or multilateral trading facility or are held by professional investors who are not shareholders of the issuer and not resident in certain tax havens (so-called blacklist countries). The Destination Italy Decree further extended the withholding tax exemption to collective investment funds so as long as their units are held by qualified investors and the assets under management are primarily invested in bonds, similar debt instruments, or promissory notes.
58. The Destination Italy Decree abolished the previous tax regime for bonds (which involved the application of registration tax, stamp duty, mortgage tax, and duty register, with costs ranging from €168 to 3 percent of the value

of the asset). The Destination Italy Decree extended the applicability of the substitute tax regime, which had existed for bank loans, to bond issuances and certain other securities, thereby harmonizing their tax treatment. The substitute tax provides for 0.25 percent tax on the aggregate amount of bonds issued.

59. Since November 2016, when it was launched, nearly 19,000 small businesses that were rejected for finance from one of the big banks have been referred under the scheme. Over 900 businesses had secured more than £15 million. Since the Q4 2017, the conversion rate for SMEs that make contact with a platform has been over 10 percent, in line with market expectations. See U.K. HM Treasury 2018 and Schammo 2019.
60. On practical grounds, the problem in estimating the finance gap (whether credit or equity) comes from the fact that supply and demand cannot be observed separately—only the market equilibrium can. Consequently, the directly unobservable potential demand needs to be estimated. One alternative is to use a very specific and well-designed survey of small businesses, but such surveys are costly, not always representative of the universe of firms, and often country specific. A more efficient solution is to proxy potential demand for the typical SME on the basis of an international benchmark. This assumes that domestic firms in EMDEs have the same willingness and ability to tap external sources of financing as a similar firm in a developed country. Compared with the actual availability of external resources, this figure provides a rough measure of the gap. This is the methodology followed by the IFC to construct the SME credit gap for a large number of countries.
61. For a discussion on opportunities and challenges of crowdfunding and financial inclusion, see Jenik, Lyman, and Nava 2017. A broader discussion of the impact of fintech in small business finance can be found in World Economic Forum. 2015.

62. The literature defines a firm as being financially constrained when, due to informational frictions, it faces a wedge between the cost of internal and external capital (see Farre-Mensa and Ljungqvist 2016, and references therein). In graphical terms, this would translate to a horizontal supply of funds function up to the point at which internal funds are exhausted, and then a positive slope as external sources are tapped (see Hubbard 1998). In the extreme, the supply curve becomes vertical when the firm is shut down from the credit market. Equivalently, one may define a financial constraint as a situation in which the firm is prevented from making an investment it would have made using internal funds if available (see Kaplan and Zingales 1997).
63. Other than using lagged regressors, causality is not a key concern because it seems highly unlikely that such new and small alternative finance markets have any causal impact on any of the right-hand-side variables.
64. CCAF defines P2P as loans to consumers or businesses by individual or institutional funders, equity crowdfunding as the purchase of equity stakes by these funders, and invoice trading as the purchase, at a discount, of invoices or receivables notes from a business.
65. Low leverage may also be a preliminary indication of financial constraints, but because this ratio is available for a small set of (listed) firms in a small set of countries, this issue has been kept out of the analysis. However, it is interesting to note that, in line with the proxies under study, the international differences in leverage are narrow in spite of huge differences in financial depth.
66. Because many of the explanatory variables are highly correlated, thus giving rise to multicollinearity, each regressor was entered separately and not simultaneously, with the only exception being the baseline regressor set (GDP level and growth and private credit).

