What role does long-term finance play in economic development? Extending the maturity structure of finance is often considered to be at the core of sustainable financial development. Long-term finance—frequently defined as all funding for a time frame exceeding one year—may contribute to faster growth, greater welfare, shared prosperity, and enduring stability in two important ways: by reducing rollover risks for borrowers, thereby lengthening the horizon of investments and improving performance, and by increasing the availability of long-term financial instruments, thereby allowing households and firms to address their life-cycle challenges (Caprio and Demirgüç-Kunt 1998; Demirgüç-Kunt and Maksimovic 1998, 1999; de la Torre, Ize, and Schmukler 2012).

Attempts to actively promote long-term finance have proved both challenging and controversial. The prevalent view is that financial markets in developing economies are imperfect, resulting in a considerable scarcity of long-term finance, which impedes investment and growth. Indeed, a significant part of lending by multilateral development banks (including World Bank Group lending and guarantees) has aimed at compensating for the perceived lack of long-term credit. At the same time, research shows that weak institutions, poor contract enforcement, and macroeconomic instability naturally lead to shorter maturities on financial instruments. Indeed, these shorter maturities are an optimal response to poorly functioning institutions and property rights systems, as well as to instability. From this perspective, the policy focus should be on fixing these fundamentals, not on directly boosting the term structure of credit. Indeed, some argue that attempts to promote long-term credit in developing economies without addressing the fundamental institutional and policy problems have often turned out to be costly for development. For example, efforts to jump-start long-term credit through development financial institutions in the 1970s and 1980s led to substantial costs for taxpayers and, in extreme cases, to failures (Siraj 1983; World Bank 1989). In response, the World Bank reduced this type of long-term lending in the 1990s and the 2000s.

In recent years, long-term finance has attracted heightened interest from policy makers, researchers, and other financial sector stakeholders. It has also become clearer that long-term finance is used to a lesser extent in
emerging markets and developing economies. While emerging markets’ share of the global economy has risen from roughly one-third to one-half over the past decade, advanced economies continue to dominate the use of long-term funding. At the same time, new evidence has accumulated on the use and term structure of debt for both firms and households and on the effects of long-term finance and related policies. In particular, evidence shows that long-term finance can, but need not, positively affect firm performance.

The global financial crisis of the late 2000s led to an even greater policy focus on the importance of long-term finance. Academics and policy makers have acknowledged that the inability of financial firms to roll over debt to meet their obligations was one of the main drivers of contagious defaults in the recent crisis (Brunnermeier 2009; Financial Stability Forum 2009a, 2009b). The decreased availability of longer-term funding following the crisis has further heightened existing financial sector vulnerabilities and widened potential long-term financing gaps for infrastructure investment in particular. Although the focus and regulatory response has been on financial firms, the risks associated with short-term finance are not confined to financial firms alone. Inability to roll over short-term debt has exacerbated the operational losses and led to sudden defaults of large corporations such as Penn Central in the United States. Concerns about the detrimental effects of a potentially constrained supply of long-term finance have been voiced in the Group of Twenty (G-20) meetings and by the Group of Thirty. Specifically, these bodies consider long-term financing to be critical for investment and growth, particularly in infrastructure sectors, and necessary to improve welfare and share prosperity and to achieve post-2015 development goals.¹ The G-20 endorsed an action plan to support the development of local currency bond markets, noting that during the global financial crisis domestic bond issuances cushioned the impact of banking stress on the real economy.² Institutional investors are also increasingly seen to play a greater role in financing long-term investment (OECD 2014a).

The Group of Thirty called for a multifaceted policy approach to lower the barriers that constrain the provision of long-term finance. Ensuring more and better long-term finance is one of the priorities for the Post-2015 Development Agenda (United Nations 2013).

The Global Financial Development Report 2015/2016: Long-Term Finance seeks to contribute to this policy discussion on long-term finance. It provides stylized facts on the use and provision of long-term finance and examines both new and older evidence on the use of long-term finance and its economic impact. The report provides a careful review and synthesis of recent and ongoing research, identifying those policies that work to promote long-term finance and those that do not, as well as areas where more evidence is still needed. Box O.1 provides the main messages of this report.

Despite the renewed interest, policy makers and other financial sector practitioners are divided on whether and how policy should promote long-term finance. According to the third Financial Development Barometer—an informal poll of the views of policy makers in developing countries undertaken for this Global Financial Development Report—slightly more than 40 percent of the respondents fully agree that a lack of access to long-term finance represents a problem for firms and households in their country (box O.2). While 70 percent of respondents believe the underlying reasons for underuse of long-term finance are supply driven, views differ significantly on which institutions and markets play the most important role in supplying long-term finance, as well as which policies are the most effective for promoting it. The Global Financial Development Report 2015/2016: Long-Term Finance brings new data and research and draws on available insights and experience to contribute to the policy discussion.

LONG-TERM FINANCE: MEASUREMENT AND RECENT TRENDS

Use of long-term finance varies across the world, but it is generally more limited in
Use of long-term finance—frequently defined as all financing for a time frame exceeding one year—is more limited in developing countries, particularly among smaller firms and poorer individuals. This is true even after controlling for firm characteristics such as asset and industry composition and profitability and individual attributes such as wealth and education. In developing countries, only 66 percent of small firms and 78 percent of medium-size firms report having any long-term liabilities, compared with 80 percent and 92 percent in high-income countries, respectively. Firms in high-income countries report financing almost 40 percent of their fixed assets externally, whereas this figure is barely 20 percent in low-income countries. Similar differences exist for individuals’ use of term finance. For example, the average share of individuals with an outstanding loan to purchase a home is 21 percent in high-income countries, yet barely 2.5 percent in lower-middle- and low-income countries. Other products such as education loans are not widespread in the developing world and, when they are available, are used by wealthier individuals.

Where it exists, the bulk of long-term finance is provided by banks; use of equity, including private equity, is limited for firms of all sizes. As financial systems develop, the maturity of external finance also lengthens. Banks’ share of lending that is long term also increases with a country’s income and the development of banking, capital markets, and institutional investors. Long-term finance for firms through issuances of equity, bonds, and syndicated loans has also grown significantly over the past decades, but only very few large firms access long-term finance through equity or bond markets. The promotion of nonbank intermediaries (pension funds and mutual funds) in developing countries such as Chile has not always guaranteed an increased demand for long-term assets.

The global financial crisis of 2008 has also led to a reduction in leverage and use of long-term debt for developing-country firms. Small and medium enterprises in lower-middle- and low-income countries were particularly adversely affected, seeing a reduction in both their leverage and use of long-term debt. Large firms in developing countries that are able to access financial markets were affected as well, because they rely on international markets to a greater extent than their high-income counterparts. Such firms were also more vulnerable to the large drop in syndicated lending during the crisis.

Market failures and policy distortions have a disproportionate effect on long-term finance, suggesting an important role for policies that address these failures and distortions. Long-term finance is not always optimal—its use in an economy reflects the risk sharing between users and providers of finance. Shorter maturities shift risk from providers to users because these instruments force users to roll over financing frequently. Also, because firms and individuals tend to match the maturity structure of their assets and liabilities, not every firm or household needs to use long-term financing instruments. Hence, use of long-term finance across countries may vary naturally depending on the asset being financed and on how borrowers and lenders agree to share the risks involved between each other. However, limited use of long-term finance is generally also a symptom of market failures and policy distortions since long-term financing instruments are disproportionately affected by these failures and distortions.

Sustainably extending the maturity structure of finance is a key policy challenge since long-term finance can be an important contributor to economic growth and shared prosperity. If long-term finance is not available for deserving firms, they become exposed to rollover risks and may become reluctant to undertake longer-term fixed investments, with adverse effects on economic growth and welfare. Without long-term financial instruments, households cannot smooth income over their life cycle—for example, by investing in housing or education—and may not benefit from higher long-term returns on their savings. Empirical evidence also suggests use of long-term finance by firms and households is associated with better firm performance and improved household welfare. There is little evidence however, that direct efforts to promote long-term finance by governments and development banks—for example, through directed credit to firms or subsidies for housing—have had sustainable positive effects. These policies have generally not been successful because the underlying institutional problems and market failures that underpin the low
use of long-term finance remain and because political capture and poor corporate governance practices undermine the success of direct interventions by governments. Similarly, extending maturity structures by promoting development of institutional investors or by building stock or bond markets has proven difficult unless there is a commitment to address fundamental institutional problems.

There is no magic bullet to promote long-term finance; governments need to focus on fundamental institutional reforms. These include pursuing policies that promote macroeconomic stability, low inflation, and viable investment opportunities; promoting a contestable banking system with healthy entry and exit supported with strong regulation and supervision; putting in place a legal and contractual environment that adequately protects the rights of creditors and borrowers; fostering financial infrastructures that limit information asymmetries; and laying the necessary institutional and incentive frameworks to facilitate long-term development of capital markets and institutional investors. Most of these policies will promote financial development more generally but will disproportionately increase long-term finance, which is more affected by distortions.

Institution building is a long-term process; hence in the short to medium term, market-friendly innovations that overcome market failures and institutional weaknesses and that support financial literacy and consumer protection may help extend maturity. Asset-based lending instruments such as leasing may even help small and nontransparent firms gain access to longer-term finance. For larger firms able to access markets, evidence suggests that foreign investors hold more long-term domestic debt than domestic investors; hence policies that promote foreign investment are also likely to extend the maturity structure of finance, although this will also make firms more vulnerable to external shocks. For households, supporting financial literacy, consumer protection, and disclosure rules to improve information and its use, and providing investment default options to reduce behavioral biases can help increase individuals’ understanding of long-term finance instruments.

Well-designed private-public risk-sharing arrangements may also hold promise for mobilizing financing for long-term projects. Through public-private partnerships for large infrastructure projects, governments can mitigate political and regulatory risks and mobilize private investment. Sovereign wealth funds are state-owned investment funds that are seen as a promising source of longer-term finance, given their long investment horizon and mandate to diversify economic risks and manage intergenerational savings, but they are not entirely immune to some of the problems of political capture and poor governance that plagued national development banks. Multinational development banks can promote long-term finance by offering knowledge and policy advice to help shape policy agendas for institutional reform that are essential for promoting long-term finance, as well as by structuring infrastructure or other long-term financing projects that allow private lenders and institutional investors to participate in this financing while reducing project and credit risk.

developing countries. Smaller firms and poorer individuals also tend to use long-term finance less. For example, figure O.1 shows long-term debt-to-asset ratios for firms of different sizes across a large sample of developing and high-income countries over the 2004–11 period. In the median developing country, small firms’ long-term debt-to-asset ratios are 1 percent, compared with 7 percent in high-income countries. Similar differences exist for individuals’ use of term finance. For example, the average share of individuals with an outstanding loan to purchase a home is 21 percent in high-income countries, yet barely 2.5 percent in lower-middle- and low-income countries. Other products such as education loans are not widespread in the developing world and, when they are available, are used by wealthier individuals.

One common definition of long-term finance, which also corresponds to the definition of fixed investment in national accounts,
To examine views on long-term finance among some of the World Bank Group’s clients, the Global Financial Development Report team has undertaken a new, 2014 round of the Financial Development Barometer. The barometer is a global informal poll of financial sector practitioners (central bankers, finance ministry officials, market participants, and academics, as well as nongovernmental organization and think-tank representatives focusing on financial sector development issues). This poll examines sentiments, trends, and important policy issues. For results from the last Financial Development Barometer, see Global Financial Development Report 2014.

The barometer survey contained questions in two groups: general questions about financial development, and specific questions relating to long-term finance, the topic of the 2015/2016 Global Financial Development Report. The poll, carried out in 2014, covered respondents from 21 developed and 49 developing economies. From 70 economies polled, 42 responded (60 percent response rate). According to poll results, 40–43 percent of respondents fully agreed that access to long-term finance is a significant problem for firms and households. Most respondents saw this primarily as a supply problem. Interestingly, more than half of the respondents felt the availability of long-term finance had increased since the financial crisis of 2008. The poll also sought views on the most important institutions and policies for the provision of long-term finance. While 61 percent agreed that private domestic banks were the most important institutions for this purpose, views differed on which other institutions and markets played the most important role. When asked about the most effective policies to promote long-term finance, again views differed on what were the most important policies.

**TABLE B0.2.1** Selected Results from the 2014 Financial Development Barometer

<table>
<thead>
<tr>
<th>Statement</th>
<th>Percentage of respondents agreeing with the statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Access to long-term finance is a significant problem for households in my country.”</td>
<td>43</td>
</tr>
<tr>
<td>“Access to long-term finance is a significant problem for firms in my country.”</td>
<td>40</td>
</tr>
<tr>
<td>“Low use of long-term finance in my country is primarily a supply problem.”</td>
<td>75</td>
</tr>
<tr>
<td>“Low use of long-term finance in my country is primarily a demand problem.”</td>
<td>15</td>
</tr>
<tr>
<td>“In my country availability of long-term finance declined or stayed the same since the global financial crisis.”</td>
<td>40</td>
</tr>
<tr>
<td>“In my country availability of long-term finance increased since the global financial crisis.”</td>
<td>60</td>
</tr>
<tr>
<td>“Domestic banks play the most important role in promoting long-term finance in my country.”</td>
<td>61</td>
</tr>
<tr>
<td>“Development banks play the most important role in promoting long-term finance in my country.”</td>
<td>22</td>
</tr>
<tr>
<td>“Domestic stock markets play the most important role in promoting long-term finance in my country.”</td>
<td>13</td>
</tr>
<tr>
<td>“Domestic corporate bond markets play the most important role in promoting long-term finance in my country.”</td>
<td>11</td>
</tr>
<tr>
<td>“Nonbank financial institutions play the most important role in promoting long-term finance in my country.”</td>
<td>17</td>
</tr>
<tr>
<td>“International capital markets play the most important role in promoting long-term finance in my country.”</td>
<td>17</td>
</tr>
</tbody>
</table>

Source: Financial Development Barometer (for full results, see [www.worldbank.org/financialdevelopment](http://www.worldbank.org/financialdevelopment)).
is any source of funding with maturity exceeding one year. The G-20, by comparison, uses a maturity of at least five years to define long-term financing. In this report, long-term finance is frequently defined to cover maturities beyond one year, but more granular maturity buckets and comparisons are also examined when data are available. Equity (public or private) is also often considered to be a form of long-term financing, since it is a financial instrument with no final repayment date.

Long-term finance can take the form of either debt or equity financing, but bank finance is the single most common source of external finance. When examining the sources of external finance for purchases of fixed assets, Enterprise Survey data show that bank credit drives differences in the use of long-term finance across firm size. Figure O.2 also shows that use of bank finance varies widely across firm size, with small firms
financing 11 percent of purchases of fixed assets through banks, compared with 26 percent for large firms. In contrast, the use of equity is less than 5 percent for firms of all sizes.

The global financial crisis of 2008 exacerbated these differences in the use and provision of long-term finance. Initially in 2008–09, the crisis led to a reduction in ratios of total debt to total assets, or deleveraging—mostly for small and medium enterprises (SMEs) in high-income countries—as shown in the top half of figure O.3. By 2011, however, deleveraging was occurring across the board in all countries and for all firm sizes, and although the impact remained larger in the high-income world, larger firms were even more affected than SMEs. The bottom half of figure O.3 shows a different trend, this time focusing on long-term debt use. Looking only at firms using long-term finance in the precrisis period, the figures reveal that the crisis led to a significant reduction in long-term debt use by SMEs in developing countries. Again, by 2011 firms of all sizes had been affected by declining long-term debt use, but the impact remained significantly greater in developing countries and for small firms.

For large firms that are able to access markets for long-term finance, developments in the bond and syndicated loan markets had an adverse impact. Despite the significant development of equity, bond, and syndicated loan markets before the crisis, particularly in developing countries it is still mostly a few large firms that tap these markets. Although these large firms in developing countries generally do not show a shorter maturity structure than similar size firms in high-income countries, a larger share of their financing takes place in international markets compared with firms in high-income countries. Hence when the crisis led to a significant fall in syndicated lending that originated in the high-income countries, developing-country firms were especially affected. The financing of infrastructure projects, for which syndicated loans are key at the early stages, was severely affected.

### WHY DO WE CARE ABOUT LONG-TERM FINANCE?
#### SCARCITY AND IMPACT

The limited use of long-term finance observed in developing countries is not necessarily a problem in itself. To the contrary, this limited use can be optimal since it reflects both demand and supply of contracts with longer-term maturities and involves trade-offs in how risk is shared between users and providers. In well-functioning markets, borrowers and lenders may prefer short-term contracts over longer-term contracts for a number of reasons.

Depending on the kind of asset being financed, short-term finance may be preferred. Firms and households tend to match the maturity structure of their assets and liabilities. Firms, for example, generally prefer short-term loans to finance working capital, such as payroll, and inventory and use long-term financing to acquire fixed assets, equipment, and the like (Hart and Moore 1995).
Short-term finance has a stronger disciplin ary role, overcoming moral hazard and agency problems in lending. The lender’s ability to monitor borrowers is improved with short-term financing contracts because short-term debt needs to be negotiated frequently and creditors can cut financing if they are not satisfied with the borrower’s performance (Rajan 1992; Rey and Stiglitz 1993; Diamond and Rajan 2001). Long-term debt may also reduce incentives to invest because firm managers and owners will have to share the returns with the lender well into the future (Myers 1977)—a problem especially for firms
with high-growth opportunities. Hence overall, short-term finance can also reduce waste and improve firm performance.

The term of financing reflects the risk-sharing contract between providers and users of finance. Long-term finance shifts risk to the providers because they have to bear the changing conditions in financial markets, such as interest rate risk, including because of fluctuations in the probability of default. Often providers require a premium as part of the compensation for the higher risk this type of financing implies. On the other hand, short-term finance shifts risk to users as it forces them to roll over financing constantly.

Therefore, the amount of long-term finance that is optimal for the economy as a whole is not clear. In well-functioning markets, borrowers and lenders will enter short- or long-term contracts depending on their financing needs and on how they agree to share the risk involved at different maturities. What matters for the economic efficiency of the financing arrangements is that borrowers have access to financial instruments that allow them to match the time horizons of their investment opportunities with the time horizons of their financing, conditional on economic risks and volatility in the economy (for which long-term financing may provide a partial insurance mechanism). At the same time, savers would need to be compensated for the extra risk they might take.

Nevertheless, even when both users and providers of finance prefer to contract long term, the equilibrium amounts observed in an economy may be lower than optimal because of market failures and policy distortions. Indeed, long-term financial contracts are likely to be disproportionately sensitive to the existence of market failures and policy distortions. Figure O.4 shows how the maturity structure of debt lengthens as a country’s financial depth—measured by bank lending to private parties as a proportion of gross domestic product (GDP)—increases. While an average developing country’s financial depth is less than half of its high-income counterpart, its ratio of long-term debt to GDP is only a quarter. Therefore, limited use of long-term finance in an economy warrants attention because it is often a symptom of underlying problems, some of which may require policy attention.

When long-term finance is undersupplied because of market failures and policy distortions, it is “scarce” and can have adverse implications for development. Scarcity of long-term finance is an important development concern since deserving firms that do not have access to long-term finance become exposed to rollover risks and may become reluctant to undertake longer-term fixed investments, with adverse effects on economic growth and welfare (Diamond 1991, 1993). Without long-term financial instruments, households cannot smooth income over their life cycle—for example, by investing in housing or education—and may not benefit from higher long-term returns on their savings (Yaari 1965; Campbell 2006).

Evidence also suggests that use of long-term finance by firms is associated with better firm performance. Long-term financing is important for firms because it allows them to undertake lumpy and large investments that might be critical for their growth. Evidence suggests that developed financial institutions and markets and their ability to enter into long-term contracts allow firms to grow at

FIGURE O.4 The Relationship between Greater Financial Depth and Longer Debt Maturity by Country Income Group, 1999–2012


Note: The ratio of private credit to gross domestic product (GDP) and the maturity distribution are averaged over those years when information for both is available. Figures are averages.
faster rates than they could attain by relying on internal sources of funds and short-term credit alone (Demirgüç-Kunt and Maksimovic 1998, 1999). These results do not hold, however, when long-term finance is subsidized or extended through directed credit. Long-term finance also contributes to higher growth by lowering macroeconomic volatility (Aghion, Howitt, and Mayer 2005), and it is critical for investments in infrastructure, which are found to have a positive and significant impact on long-run growth and a negative impact on income inequality (Calderón and Servén 2014).

Long-term finance can also raise households’ welfare. Having access to long-term finance allows households to smooth their consumption over time and facilitates lumpy investments such as housing and education (Case, Quigley, and Shiller 2013). Home ownership provides households with collateral that can help alleviate borrowing constraints and that facilitates consumption risk sharing (Lustig and Van Nieuwerburgh 2004). This collateral can also increase the likelihood of starting a small business, fostering self-employment (Adelino, Schoar, and Severino 2013). On the savings side, long-term investment allows households to address the welfare considerations of various life-cycle challenges and to share in the financial benefits of economic growth.

Hence, governments have an important role to play in addressing market failures and policy distortions when long-term finance is indeed scarce. What are some of these market failures and policy distortions, and what are the best ways to address them? The next section addresses these questions and provides general policy recommendations.

**PUBLIC POLICY ON PROMOTING LONG-TERM FINANCE**

Market failures, such as information asymmetries and coordination failures, may limit long-term finance much more than short-term finance. Because extending long-term finance implies larger risks for providers, credit rationing, described by Stiglitz and Weiss (1981), is likely to be more severe for long-term finance. Similarly, when the seniority of claims is not well enforced and lenders cannot coordinate their actions, they will protect themselves against dilution by simultaneously shortening the maturity of their claims (Bolton and Jeanne 2009; Brunnermeier and Oehmke 2013). This kind of market failure may trigger a “maturity rat race” in which all lenders shorten the maturity of contracts to protect their claims. Hence, policies that reduce information asymmetries—such as reforms of credit bureaus and collateral registries—are particularly important to promote the availability of long-term finance.

Policy distortions, such as the absence of a stable political and macroeconomic environment, also tend to reduce the amount of long-term finance used in the economy. A stable political and macroeconomic environment is a necessary condition for long-term finance to thrive because it underpins the ability of economic agents to predict the risks and returns associated with that finance. For example, even a history of high inflation is often linked to short-term debt and investments, with Brazil being one such example despite the numerous reforms adopted to promote long-term finance (Park 2012). In the short run, the government can support the market for long-term finance through sound macroeconomic policies that keep inflation in check. Macroeconomic policies that render a sustainable level of economic growth and foster profitable investment opportunities in the economy will also likely promote long-term finance.

Underdeveloped financial systems are often distinguished from more developed ones by their lack of long-term finance. As financial systems develop, they become more market based, and the maturity structure of finance also lengthens. For example, Demirgüç-Kunt and Maksimovic (1999, 2002) show that development of both banking and stock markets improve access to external financing, yet it is the development of stock markets that is more strongly associated with greater use of long-term finance. Well-capitalized, well-regulated, contestable banking systems, where most banks are privately owned, are generally associated with greater provision of long-term
finance. Hence the government can also influence the supply of long-term finance by ensuring the existence of competitive and contestable markets for financing. For example, by facilitating bank competition and by allowing the functioning of other intermediaries such as leasing companies and private equity investors that can also provide long-term finance, the government can shape and potentially play a role in expanding the supply of long-term finance.

Both the absence of a strong legal and institutional framework and weak contract enforcement can also disproportionately limit the supply of long-term finance. When a country’s contracting institutions have only very weak protections for lenders against nonpayment of debt, lenders tend to rely on short-term lending agreements for formal debt contracts, which make it easier for the lender to discipline the borrower through the threat of withholding future financing if the borrower does not repay. Similarly, in the absence of contract enforcement, financiers would avoid lending long term and rely on short-term contracts to discipline borrowers and ensure repayment. The government has an important role in establishing a sound legal framework that ensures contract enforcement and that protects creditor rights to promote the development of markets for long-term finance.

There is little evidence, however, that direct efforts to promote long-term finance by governments and development banks—for example through directed credit to firms or subsidies for housing—have had sustainable positive effects. These policies have generally not been successful because the underlying problems remain and because political capture and poor corporate governance practices undermine policy success. Government-backed guarantee schemes are often designed to encourage lending to certain sectors—for example, for SMEs and in mortgage markets—and can allow more risky borrowers to receive loans and also extend maturity structures. In practice, however, it is not clear if these policies lead to additional lending, and they need to be designed carefully and managed effectively to prevent large-scale losses—a need that is particularly challenging in weak institutional environments where good governance is difficult to establish. Similarly, extending maturity structures by promoting development of institutional investors or building stock or bond markets has proven difficult unless there is a commitment to address fundamental institutional problems.

Institution building is a long-term process; hence in the short to medium term, market-friendly innovations that overcome market failures and institutional weaknesses, along with supportive financial literacy and consumer protection, may help extend maturity. Asset-based lending instruments such as leasing may even help small and nontransparent firms access longer-term finance. For larger firms in developing countries that are able to access markets, evidence suggests that foreign investors hold more long-term domestic debt than domestic investors; hence policies that promote foreign investment are also likely to extend the maturity structure of finance, although firms will also become more vulnerable to external shocks. For households, supporting financial literacy, consumer protection, and disclosure rules to improve information and its use, and the provision of investment default options to reduce behavioral biases can have important effects on increasing individuals’ understanding of long-term finance instruments.

For governments, well-designed private-public risk-sharing arrangements may also hold promise for mobilizing financing for long-term projects. Through public-private partnerships for large infrastructure projects, governments can mitigate political and regulatory risks and mobilize private investment. Where governments participate in markets for long-term finance as investors, they can delegate investment decisions to separate entities, such as sovereign wealth funds. These state-owned investment funds are seen as a promising source of longer-term finance, given their long investment horizon and mandate to diversify economic risks and manage intergenerational savings. Although they are not entirely immune to some of the problems of political capture and poor governance that
plagued national development banks, when these funds are well managed, their incentives can be better aligned with market incentives and they may be less susceptible to political capture. Similarly, multinational development banks can promote long-term finance by offering knowledge and policy advice to help shape policy agendas for institutional reform that are essential for promoting long-term finance, as well as by structuring infrastructure or other long-term financing projects to allow private lenders and institutional investors to participate in this financing while reducing project and credit risk (box O.3).

Against this broader policy context, this overview concludes with four focus areas that can be important for long-term finance: the importance of information sharing, the role of contract enforcement and protection of investor rights, the importance of financial literacy for a household’s use of long-term finance, and the challenges of extending maturity structure by promoting development of markets and institutional investors. The focus on these areas reflects not only the impact they can have on long-term finance but also new evidence to highlight. For help in navigating the rest of the report, see box O.4.

**Box O.3  The Role of Multilateral Development Banks in Mobilizing Long-Term Finance**

Available long-term financing falls far short of the investment needs of developing countries. This mismatch has been documented in the context of the discussion of the post-2015 Sustainable Development Goals, which will replace the Millennium Development Goals.\(^a\) It exists even though developing countries have introduced many reforms to develop their domestic financial markets and have enjoyed increased access to international capital markets in the past decade.

The gap is especially significant when it comes to infrastructure finance. A 2014 United Nations report on sustainable development financing\(^b\) estimates financing needs for infrastructure projects—water, agriculture, telecommunications, power, transport, building, industrial, and forestry sectors—at $5–7 trillion annually. The Organisation for Economic Co-operation and Development estimates a global infrastructure requirement by 2030 on the order of $50 trillion.\(^c\)

Multilateral development banks (MDBs) are uniquely placed to assist developing countries in closing the existing long-term financing gap. In broad terms, MDBs can help identify areas of market failures or areas where markets are still underdeveloped and can provide the necessary incentives to bring in the private sector. Mobilizing private long-term finance requires a different approach than direct financing. MDB interventions need to support, and not replace or undermine, the formation of sustainable markets.

MDBs can play a catalytic role in fostering private long-term finance in a number of ways:\(^d\)

1. They can help countries identify weaknesses in the macroeconomic and investment environment that prevent private sector financing from flowing and can act as “an honest broker” between commercial interests and policy makers to bring about the needed macro and business environment reforms.
2. They can support the development of local markets and of domestic institutional investors through technical expertise and by promoting targeted reforms.
3. They can facilitate large investments in areas such as infrastructure and energy by the following:
   a. Supporting project preparation by setting up dedicated project preparation facilities to build up a pipeline of bankable investment-ready projects. These facilities provide the technical expertise to ensure that projects are structured in ways that are familiar and appealing to the private sector.
   b. Providing risk mitigation tools such as guarantees, risk insurance, and blended finance to

(box continued next page)
**BOX 0.3 The Role of Multilateral Development Banks in Mobilizing Long-Term Finance (continued)**

financially and economically viable projects that would not likely be undertaken without protection against noncommercial risks and enabling investors to access funding on more advantageous terms using the MDBs’ preferred creditor status. In some cases, such as syndications, MDBs can provide partners with creditor status similar to that of official creditors in the event the borrower runs into payment difficulties.

c. Setting up co-investment platforms or pooled vehicles that help catalyze private capital. A recent example of such a platform is the Global Infrastructure Fund (GIF) launched at the October 2014 Annual Meetings of the World Bank and International Monetary Fund. Sixteen of the world’s largest asset management, pension, and insurance funds, along with several commercial banks, have signed agreements to collaborate on the GIF. The governments of Australia, Canada, Japan, and Singapore and MDBs including the Asian Development Bank, the European Bank for Reconstruction and Development, the European Investment Bank, and the Islamic Development Bank have also signed collaborative arrangements, signifying their willingness to partner with the GIF. The GIF platform aims to integrate the efforts of MDBs, private sector investors and financiers, and governments interested in infrastructure investment in developing countries through its pipeline of projects and programs.

a. For proposed Sustainable Development Goals, see https://sustainabledevelopment.un.org/topics/sustainable developmentgoals.
c. OECD 2013a.

**BOX 0.4 Navigating This Report**

The rest of the report consists of four chapters that cover the importance of long-term finance, some key facts, and general guidelines for the role of government in promoting long-term finance; use of long-term finance by firms and households; provision of long-term finance by markets; and bank and non-bank financial institutions as providers of long-term finance. Within these broader topic areas, the report focuses on policy-relevant areas where new evidence can be provided.

Chapter 1 defines long-term finance and explains why we care about the ability of both firms and households to have access to long-term finance. It discusses market failures and policy distortions that may lead to the scarcity of long-term finance and provides stylized facts on both users and providers of such finance. It discusses the importance of promoting long-term finance sustainably and the role of government in addressing market failures and policy distortions.

(box continued next page)
FOCUS AREA 1: IMPORTANCE OF INFORMATION SHARING FOR LONG-TERM FINANCE

Weaknesses in information sharing help explain why the use of long-term finance is less common in developing countries. In many circumstances, lenders and investors are discouraged from entering into financial contracts with long time horizons because the absence of adequate credit market information makes it difficult to form a reliable risk assessment. Such information problems pose a barrier to financial contracting in general and are especially consequential in the market for long-term finance. The establishment of credit bureaus and collateral registries can improve the quality of information available to lenders and can significantly improve the availability of credit at all maturities. In addition, the chapter examines the investment profiles of two other types of nonbank financial institutions that are also expected to have long investment horizons, namely, sovereign wealth funds and private equity investors. The chapter concludes by discussing the potential limitations of these investors in providing long-term funding in underdeveloped institutional settings and the resulting policy implications from this evidence.

The statistical appendix consists of two parts. Part 1 presents basic country-by-country data on financial system characteristics around the world. It also presents averages of the same indicators for peer groups of countries, together with summary maps. It is an update on information from the 2014 Global Financial Development Report. Part 2 provides additional country-by-country information on key aspects of long-term finance around the world.

The accompanying website (http://www.worldbank.org/financialdevelopment) contains a wealth of underlying research, additional evidence including country examples, and extensive databases on financial development, providing users with interactive access to information on financial systems. Users can provide feedback on the report, participate in an online version of the Financial Development Barometer, and submit their suggestions for future issues of the report. The website also presents an updated and expanded version of the Global Financial Development Database, a dataset of more than 70 financial system characteristics for 203 economies since 1960.
A comprehensive review of the evidence presented in this report suggests that better information availability and sharing are indeed important in lengthening debt maturity. Reducing information asymmetries between firms and lenders also reduces lenders’ need to monitor and discipline firm managers through short-term debt contracts. One illustration of the role of credit information on lengthening debt maturity comes from recent research. Martínez Pería and Singh (2014) investigate the impact of introducing credit information-sharing systems on firm access to finance and debt maturity using firm-level survey data for more than 75,000 firms in 63 countries over the period 2002–13. Credit information schemes disseminate knowledge of payment history, total debt exposure, and overall credit worthiness, either through a privately held credit bureau (CB) or publicly regulated credit registry (CR). The study examines countries that introduced a CB or CR between 2002 and 2009 (the “reformers”) as well as countries that do not have a CB or CR (“nonreformers”). Figure O.5 displays average loan maturity in CB reformers and nonreformers over time. Most countries that introduced a CB did so in 2004 or 2005, and the data show a steep increase in average loan maturity in CB reformer countries afterward.

To estimate the size of the effects of CB reforms on firm financing and loan maturity, Martínez Pería and Singh compare firms in countries that introduced a CB or CR to firms in countries that did not. The results reveal that, after the introduction of a CB, the likelihood that a firm has access to finance increases and loan maturity lengthens. The effects of CB reforms are more pronounced the greater the coverage of the reforms and the scope and accessibility of the credit information sharing scheme. Credit bureau reforms also have a greater impact on firms’ access to finance in countries where contract enforcement is weaker. Importantly, results also indicate that CB reform effects are more pronounced for smaller, less experienced, and more opaque firms.

Interestingly, the analysis finds no robust effect of CR reforms on firm financing. Three reasons explain this lack of a significant effect. First, CRs are often used for supervisory purposes and hence might have high minimum loan limits. Second, they might not provide positive and negative information, which is most useful to financial institutions. Third, to the extent that they are run by the government, in countries with bad bureaucracies CRs might not function effectively and therefore might not be used often.

**FOCUS AREA 2: ROLE OF CONTRACT ENFORCEMENT AND PROTECTION OF INVESTOR RIGHTS**

A weak contractual environment is an important reason why long-term finance is less common in developing countries. When lenders and investors cannot rely on legal institutions to enforce their claims, they prefer short-term contracts so that the continued need for renegotiation provides borrowers with the right incentives to exert effort and make sound investments. Legal institutions that help investors protect their claims include creditor and
Investor rights, bankruptcy laws, firm corporate governance frameworks, and overall contract enforcement and efficiency of the legal system.

Research reviewed in this report shows firms tend to use more long-term financing where the legal system is more efficient and the contracting environment better developed. Indeed, the development of the financial system beyond that predicted by the quality of the contracting environment is not significantly related to the ability of firms to obtain external finance (Demirgüç-Kunt and Maksimovic 1998, 1999). Recent research using a dataset that covers more than 800,000 publicly listed and privately held firms from 80 countries confirms these results; a sound legal environment and enforcement of contracts are positively associated with the use of long-term debt (Demirgüç-Kunt, Martinez Peria, and Tressel 2015b). Importantly, legal efficiency and better contract enforcement tend to disproportionately foster the use of long-term debt by privately held firms relative to publicly listed firms, and by SMEs relative to large firms.

Recent evidence suggests that the positive relationship between contract enforcement and the use of long-term debt is causal. An Indian case study uses the establishment of new specialized courts, debt recovery tribunals (DRTs), which improved contract enforcement in India, to study the impact of this reform on firms’ use of long-term finance. Gopalan, Mukherjee, and Singh (2014), using the variation in DRT establishment across states and time and balance sheet data on about 6,000 Indian firms, showed that DRTs led to a significant increase in the ratio of long-term debt to total assets. Within three years of implementation of a DRT, that ratio increased by about 8 percent, whereas short-term debt decreased by a similar amount, suggesting that firms were able to substitute long-term debt for short-term debt with more efficient contract enforcement.

Policies and regulations that improve the quality of firm corporate governance and that strengthen investor protection can also support the development of markets for long-term finance. New research examines whether better corporate governance at the firm level can provide an alternative way of monitoring managers and hence reduce the firm’s reliance on short-term debt in dealing with agency problems. Anginer and others (2015) investigated 44 different elements of corporate governance for over 7,000 firms in 22 countries over the period 2003–08. They saw that firms with strong corporate governance, particularly with independent boards with effective size, tend to use less short-term debt (figure O.6). They also confirmed their cross-country results by examining changes around substantial corporate governance reforms implemented over the sample period that strengthen shareholder rights. The results indicate a significant increase in the effect of governance in reducing the use of short-term debt after the implementation of reforms.

Focus Area 3: Role of Financial Literacy for Household Use of Long-Term Finance

Lack of financial awareness, financial literacy, and product transparency constrain households from using financial products or from
to watch the soap opera. Moreover, as figure O.7 shows, while individuals in the treatment group did not alter the amount of money borrowed, they borrowed significantly more from formal sources and through longer-term debt compared with the control group. These results suggest that entertainment media can be an effective tool for influencing key financial decisions and can have lasting implications for long-term financial well-being.

One reason why Berg and Zia found this financial literacy intervention to be effective while so many other interventions reviewed in this report have failed may be because they used an innovative way to reach their audience. Evaluations consistently agree that financial concepts are best taught at what are known as “teachable moments.” Interventions covering multiple topics tend to perform poorly. Instead, interventions that focus on concrete concepts and targeted groups are found to do better. For instance, workshops about retirement plans targeted to workers when they are deciding on their pension plan may effectively help them in making informed decisions.

Alternative interventions, such as default enrollment, or reminders of payments, can be effective measures to prevent behavioral biases that lead households to make financial errors. Default enrollment, for instance, can reduce behavioral problems such as overborrowing or undersaving. Research reviewed in this report suggests that the simple action of enrolling by default workers into pension plans

Managing them correctly. A comprehensive review of evidence in this report shows that lack of understanding of financial products by individuals can lead to costly mistakes. Empirical evidence shows that vulnerable consumers can be sold financial instruments that they do not understand and that they are unable to service. A key contributing factor to the subprime mortgage crisis in the United States was the overextension of credit to noncreditworthy borrowers and the relaxation in mortgage-underwriting standards.

Recent literature on psychology and finance also highlights the role of behavioral biases in shaping households’ financial decisions. On the one hand, people tend to underestimate the future value of their savings given their present value, maturity, and rate of return. On the other hand, borrowers underestimate the interest rate of a loan given a principal, monthly payment, and maturity. These biases are strongly correlated with more borrowing, less saving, and a preference for short-term installment debt and short-term assets, even after conditioning on various demographic and income factors. As the World Development Report 2015 highlights, understanding these behavioral biases and how they influence financial choices allows for better tailored and more effective policies, such as financial education interventions, automatic enrollment systems, or electronic reminders.

Even though financial education matters, evidence shows that delivering it effectively is challenging. Growing research efforts that randomize the provision of financial education are increasing the ability to identify the most effective mechanisms for improving and delivering financial education. In one recent example, Berg and Zia (2013) evaluated the effectiveness of financial education through a popular television soap opera in South Africa, “Scandal!” The intervention entailed a two-month-long storyline featuring a main character who borrowed excessively through shop credit and gambling, fell into a debt trap, and eventually sought help to find her way out. The analysis focused on borrowing and gambling outcomes and found a significant shift toward more formal and longer-term borrowing for the treatment group that was encouraged

\[ \text{Length of loans, months} \]

\[ \begin{array}{c|c|c}
\text{Treatment group} & 12.1 & 16.2 \\
\text{Control group} & 8.0 & 10.5 \\
\end{array} \]

Source: Based on Berg and Zia 2013.

Note: The figure shows the increase in loan maturity in control and treatment groups after an entertainment education intervention using the soap opera “Scandal!” in South Africa.
more than doubles long-term savings through pension participation. Given the significant size of these effects with default enrollment, even high-income countries such as the United States have facilitated the automatic enrollment of workers into pension plans.

**FOCUS AREA 4: CHALLENGES OF EXTENDING MATURITY STRUCTURE BY PROMOTING DEVELOPMENT OF DOMESTIC MARKETS AND INSTITUTIONAL INVESTORS**

While in theory well-functioning local capital markets could promote long-term finance, in practice government-led reform efforts to develop them have had mixed success. Local capital markets offer benefits to borrowers and investors, including governments. They facilitate better risk sharing and a more efficient allocation of capital. Importantly, development of local bond and equity markets can improve the availability of long-term financing for households and firms as well as governments. These markets can also increase financial integration by attracting foreign capital, which can improve access, lower the cost of capital, and facilitate risk sharing across countries. Hence by broadening access to long-term finance beyond a small group of large firms and by reducing the reliance of those large firms on international markets, developing countries could further develop their domestic markets by addressing market failures and policy shortcomings. However, while capital markets expanded in many countries in the recent decade, many developing countries saw their markets stagnate despite well-intended government interventions (Laeven 2014).

Governments can facilitate the development of capital markets through sound macroeconomic policies, strong institutional and legal settings, and a well-functioning financial infrastructure. De la Torre, Gozzi, and Schmukler (2007), for example, studied the impact of a set of reforms on stock market development in emerging markets, namely, stock market liberalization, enforcement of insider trading laws, and the introduction of electronic trading systems, privatization programs, and institutional reforms. The authors found that these government interventions are associated with significant increases in domestic stock market capitalization and trading volumes.

The government can also directly facilitate the development of domestic corporate bond markets by developing the market for sovereign debt. In particular, sound sovereign debt management with regular issues of benchmark bonds at different maturities is central to building a yield curve, which is necessary to price corporate bonds efficiently (especially in the longer term). However, the possibility of crowding-out effects between government and corporate bond markets through competition for investors’ funds must be taken into account.

Even in the absence of institutional, legal, and technological barriers, local markets in many emerging economies often lack the critical mass of investors needed for effective development. Governments can promote development in those cases by opening up to foreign investors, although potential risks of financial integration include greater volatility and vulnerability to international shocks and must be carefully considered. Nevertheless, some economies will simply lack the scale necessary to support a deep local capital market. They may be better served by promoting foreign listings and regional exchanges rather than trying to develop shallow, inefficient markets at home.

Promoting long-term finance through development of local institutional investors can also be challenging. One popular policy recommendation to promote local markets is through development of institutional investors such as local pension funds. For example, Chile’s launch of a funded pension system in 1981 contributed to its local bond market development, making it one of the most developed in Latin America over the next two decades. However, the Chilean case also illustrates that expanding large institutional investors does not necessarily imply more developed long-term markets. Recent research by Opazo, Raddatz, and Schmukler (2015)
have a long-run horizon to avoid some of the short-termism that has been observed in the case of Chile. In addition, restrictions on portfolio allocations that limit the long-term instruments funds can invest in should also be removed.

The difficulties of developing local capital markets and institutional investors that invest much more long term, providing clues into what may be behind these differences (figure O.8).

The shorter investment horizon of Chilean mutual and pension funds compared with insurance companies seems to result from agency factors that tilt the managerial incentives. In the case of Chilean open-end funds, like mutual and pension funds, managers are monitored in the short run by the underlying investors, the regulators, and the asset management companies. This short-run monitoring, combined with the risk profile of the available instruments, generates incentives for managers to be averse to investments that are profitable at long horizons (like longer-term bonds) but that can have poor short-term performance. In contrast, insurance companies are not open-end asset managers, receive assets that cannot be withdrawn in the short run, and have long-term liabilities because investors acquire a defined benefit plan when purchasing a policy. Thus, insurance companies are not subject to the same kind of short-run monitoring.

The regulatory scheme seems to be another factor behind the short-term nature of pension funds. The Chilean regulation establishes a lower threshold of returns over the previous 36 months that each pension fund needs to guarantee. This type of short-term monitoring seems to push managers to move their investments into portfolios that try to minimize the probability of triggering the guarantee. Moreover, as this threshold depends on the average return of the market, it may generate herding incentives and suboptimal portfolio allocations. Hence, governments need to ensure that compensation and benchmarking practices followed by institutional investors

<table>
<thead>
<tr>
<th>FIGURE O.8  Maturity Structure of Chilean Institutional Investors</th>
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<tr>
<td><img src="image" alt="Maturity Structure of Chilean Institutional Investors" /></td>
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<tr>
<td>Source: Opazo, Raddatz, and Schmukler 2015.</td>
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</tbody>
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NOTES

1. World Bank 2014; World Bank 2013c. For further work in this area, see http://www.g20.org/news/20130228/781245645.html.
2. A diagnostic framework was subsequently prepared by the International Monetary Fund, the World Bank, the European Bank for Reconstruction and Development, and the Organisation for Economic Co-operation and Development (IMF 2013b).