
Access to Financial Services: Measurement, Impact, and Policies

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In many developing countries less than half the population has access to formal financial services, and in most of Africa less than one in five households has access. Lack of access to finance is often the critical mechanism for generating persistent income inequality, as well as slower economic growth. Hence expanding access remains an important challenge across the world, leaving much for governments to do. However, not all government actions are equally effective and some policies can even be counterproductive. This paper sets out principles for effective government policy on broadening access, drawing on the available evidence and illustrating with examples. The paper concludes with directions for future research. JEL Codes: D31, G20, G21, O12, O16

Financial markets and institutions exist to overcome the effects of information asymmetries and transaction costs that prevent the direct pooling and investment of society's savings. They mobilize savings and provide payments services that facilitate the exchange of goods and services. In addition, they produce and process information about investors and investment projects to guide the allocation of funds, monitor and govern investments, and help diversify, transform, and manage risk.¹ When they work well they provide opportunities for all market participants to take advantage of the best investments by channeling funds to their most productive uses, hence boosting growth, improving income distribution, and reducing poverty. When they do not work well growth opportunities are missed, inequalities persist, and in extreme cases, there can be costly crises.

Until recently econometric research on the performance of formal financial systems around the world has focused mainly on their depth, efficiency, and stability. Cross-country regressions have shown financial depth to be not only pro-growth but also pro-poor: economies with better developed financial systems experience faster drops in income inequality and faster reductions in poverty

levels. Much less attention has been devoted to financial outreach and inclusiveness: the extent to which individual firms and households can directly access formal financial services. Even deep financial systems may offer limited outreach. Yet important tasks of a well-functioning financial system are providing savings, payments, and risk-management products to as large a set of participants as possible and seeking out and financing any and all worthwhile growth opportunities. Without inclusive financial systems, poor individuals and small enterprises need to rely on their personal wealth or internal resources to invest in their education, become entrepreneurs, or take advantage of promising growth opportunities. It seems plausible, therefore, that an inclusive financial system might be associated not only with lower social and economic inequality, but also with a more dynamic economy as a whole (Rajan and Zingales 2003).

Modern development theories increasingly emphasize the key role of access to finance: lack of finance is often the critical mechanism for generating persistent income inequality, as well as slower economic growth. That is not to say that more borrowing by poor people or by highly leveraged enterprises is always a good thing. Abuses revealed in the United States sub-prime mortgage crisis of 2007-08 underline the danger of overborrowing, whether by individuals misled through predatory lenders or by over-optimistic entrepreneurs.

Earlier theories postulated that a rise in short-term inequality was an inevitable consequence of the early stages of economic development (Kuznets 1955, 1963). However, modern theory has examined the ways in which inequality can adversely affect growth prospects through limiting human capital accumulation and occupational choices, which implies that wealth redistribution can spur development (Banerjee and Newman 1993; Galor and Zeira 1993). Despite the emphasis that financial market imperfections receive in theory, development economists often take them as given and focus their attention on redistributive public policies to improve wealth distribution and to foster growth.² However, financial market imperfections which limit access to finance play an important role in perpetuating inequalities, so that financial sector reforms that promote broader access to financial services should be at the core of the development agenda. Indeed, the task of redistribution may have to be endlessly repeated if financial market frictions are not addressed, damaging incentives to work and save. In contrast, building inclusive financial systems creates positive incentive effects by equalizing and expanding individual opportunities. While theory highlights the risk that selectively increased access could worsen inequality, both cross-country data and evidence from particular policy experiments suggest that a more developed financial system is associated with lower inequality in the medium- to long-term. While still far from conclusive, the bulk of the evidence suggests financial development and improving access to finance is likely to not only accelerate economic growth, but also reduce income inequality and poverty.

Financial market imperfections—such as information asymmetries and transactions costs—are likely to be especially binding on the talented poor and the micro and small enterprises. Without inclusive financial systems these parties are limited by their lack of collateral, credit histories, and connections, and have only their own savings and earnings.³ However, this access or outreach dimension of financial development has often been overlooked, mostly because of serious data gaps on the people using financial services, the types and quality of services they receive, and the price they pay, as well as a lack of systematic information on the barriers to broader access. But since the concept of financial access resists a simple quantifiable definition, all of these dimensions need to be examined, along with the causes of all of the barriers—price and non-price—to financial inclusion.

Drawing on a recent comprehensive review of econometric research on the measurement, determinants, and impact of access to finance (World Bank 2007), this paper reflects on what is known about the extent of financial access, its determinants, and the impact of access on growth, equity, and poverty reduction. It also discusses the role of government in advancing financial inclusion both of firms and households. Though much remains to be learned, a significant amount of empirical analysis has been conducted on these issues over the past years. As with any review, taking stock of all this research also allows us to identify the many gaps in our knowledge, which help chart the way for a new generation of research.

Specifically, the remainder of the paper covers the following themes:

- *Measurement.* How well do the financial systems in different countries directly serve the poor households and small enterprises? Who uses which financial services (e.g., deposits, credit, payments, insurance)? What are the chief obstacles and policy barriers to broader access? This section discusses some indicators based on surveys of financial service providers and their regulators, as well as users of these services (firms and households) to illustrate the extent of financial inclusion around the world.
- *Evaluating the impact of access.* How important is access to finance as a constraint to firm growth? What are the channels through which improved access affects firm growth? What is the impact of access to finance for households and micro-enterprises? What aspects of financial sector development matter for broadening access to different types of financial services? What techniques are most effective in ensuring sustainable provision of credit and other financial services on the small scale? This paper synthesizes research on the impact of access on firms and households.
- *Policies to broaden access.* What is the government's role in building inclusive financial systems? Given that financial systems in many developing countries

serve only a small part of the population, expanding access remains an important challenge across the world, leaving much for governments to do. However, not all government actions are equally effective and some policies can even be counterproductive. In this section the paper sets out principles for effective government policy on broadening access, drawing on the available evidence and illustrating with examples.

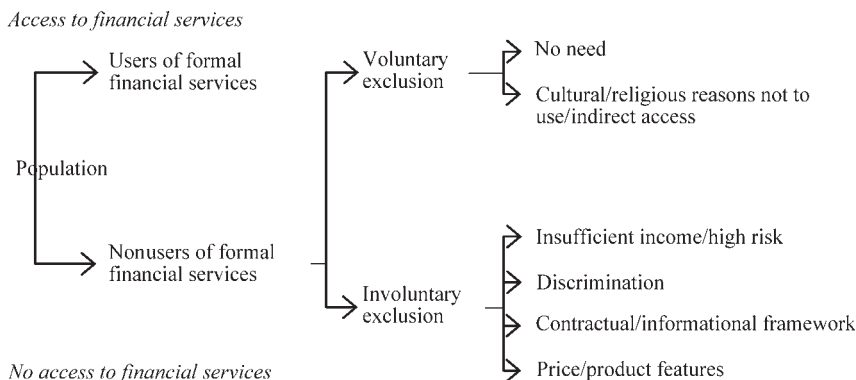
Finally, the paper concludes with directions for further research.

Measurement

While copious amounts of data are available on many aspects of the financial sector, systematic indicators of the inclusiveness of the financial sector are not. Most of the evidence concerning the causal links between financial development, growth, and poverty comes from aggregate data using, for example, financial depth measures (how much finance) rather than outreach or access measures (how many users). Meanwhile, microeconomic studies in the field have tended to use financial or real wealth to proxy for credit constraints.⁴ It is only recently that researchers have started to compile cross-country indicators on the outreach and access dimensions of financial development.

It is important to distinguish between access to and use of financial services (figure 1). Critically, non-users of financial services can be differentiated between those that are involuntarily excluded and those that are voluntarily self-excluded. Voluntary self-exclusion can be attributed to a lack of need for financial services, religious or cultural reasons, or indirect access to services through friends and family. In all of these cases, voluntary non-use is driven by lack of demand and

Figure 1. Distinguishing between Access to and use of Financial Services



therefore does not pose problems for policy makers. However, for the involuntarily excluded it is important to distinguish between four different groups in order to formulate proper policy advice. First, there is a group of households and firms that are not considered bankable because their incomes are too low or they pose too high a lending risk. Rather than trying to include them in the financial system, non-lending support mechanisms might be more appropriate. The other three involuntarily excluded groups need to overcome (a) discriminatory policies, (b) deficiencies in the contractual and informational frameworks, or (c) price and product features. Any of these problems can exclude large parts of the population, especially in the developing world, and all call for specific policy actions.

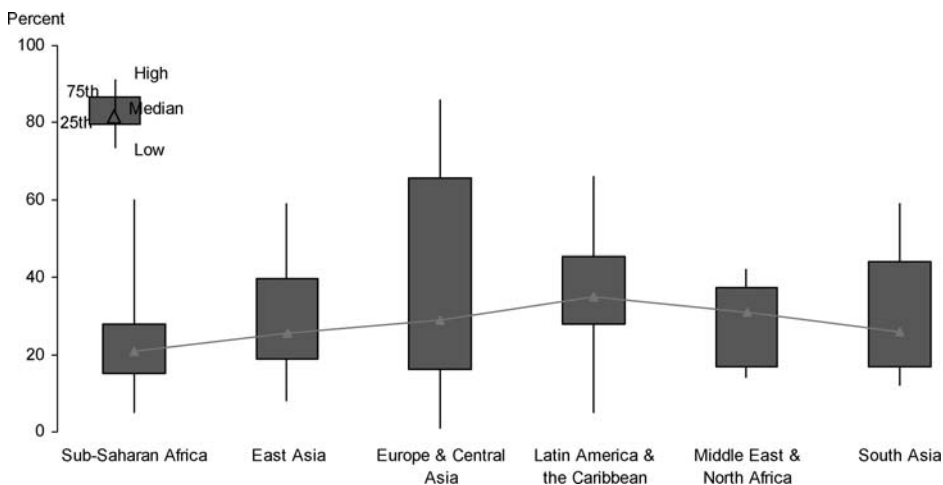
Across these groups, three main approaches to measuring access and usage have produced promising results. The first seeks to count the number of users of basic financial services, the second relies on the subjective assessments of firms as to the quality of the financial services that they obtain, and the third looks at physical and cost barriers to access. Each approach has its shortcomings: in the case of the first approach, the quality and price of the services received by the account holders of different formal or semi-formal financial institutions may vary substantially; in the case of the second, the robustness or interpretability of subjective assessments of service quality may be questionable; and in the case of the third, data on some barriers (such as distance to a bank branch, or documentary requirements to open an account) may be easier to assemble and therefore more complete than data on other barriers. Still, these data help us understand the reasons for financial exclusion and provide hints as to which policies could be helpful in removing barriers and broadening access.

Despite the usefulness of these methods the limitations of available data are striking: even the number of individuals with a bank account is not known from regulatory or industry sources. While we may know how many accounts exist, many individuals and firms have multiple accounts, others have none, and regulatory authorities generally do not collect data on individual account holders. The best data would be generated by a census or survey of users, which would allow researchers to measure financial access across sub-groups. However, few such surveys exist for households and there are problems with cross-country compatibility of the data sets. In the absence of comprehensive micro-data, researchers have sought to create synthetic headline indicators, combining the results of existing surveys with more readily available macro-data on the number of accounts and financial depth indicators (Honohan 2008a). For example, the proportion of households with some access to a bank account can be approximated by a non-linear function of the number of accounts in commercial banks and microfinance institutions (MFIs) and the average size of these accounts: the available survey data on household accounts has shown the validity of this function.

Headline indicators like these indicate that household access to and use of financial services are very limited around the world. Although in several European countries more than 90% of households have a bank account, in many developing countries less than half of households have an account and in many African countries less than one in five households have an account (figure 2).

Quite a few systematic surveys of firms, although generally neglecting informal firms, have thrown light on both the financial structure of firms and on their managements' perspectives on service quality. These surveys include the Regional Program on Enterprise Development (RPED) studies for Sub-Saharan Africa in the 1990s, the World Bank- European Bank for Reconstruction and Development Business Environment and Enterprise Performance Survey (BEEPS) for the transition economies, the World Business Environment Survey (WBES) across 80 countries in 1999/2000, and the Investment Climate Assessment (ICA) surveys over the past five years which are available for almost 100 countries. These surveys ask firms to rate the extent to which access to and cost of external finance constitute obstacles to their operation and growth, with higher numbers indicating higher obstacles. In general, small firms in both the WBES and ICA surveys report lack of financing to be one of the most important business constraints they face. One of the most consistent findings of these surveys is that small firms seem to face larger access barriers: for example, fewer than 20 percent of small firms use external finance, about half the rate of large firms

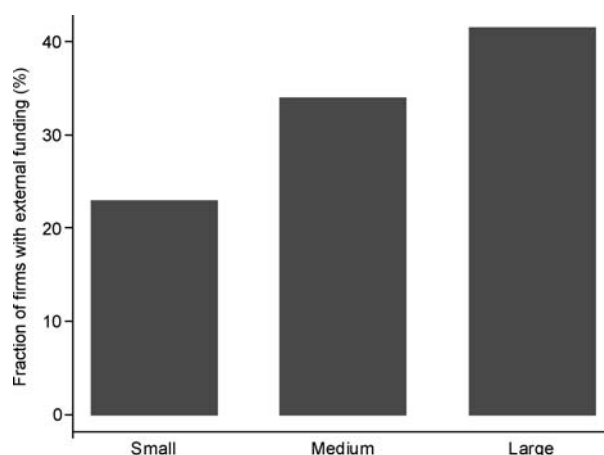
Figure 2. Proportion of Households with an Account in a Financial Institution



Data by country grouped by region.

Source: World Bank (2007).

Figure 3. Percentage of Firms using External Finance, by Firm Size



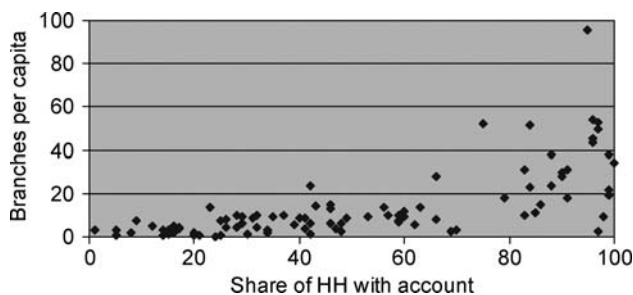
Source: World Bank (2007).

(figure 3). We will discuss in the next section the extent to which the self-reported obstacles and the use of external finance are related to real outcomes.

Geography, or physical access, is among the barriers that prevent small firms and poor households in many developing countries from using financial services. While some services may be accessible over the phone or via the Internet, others require clients to visit a branch or use an ATM. Ideally, we would like to know how far customers are from the location of the nearest branch (or ATM); the density of branches per square kilometer or per capita provide an initial, albeit crude, alternative indicator. For example, while Spain has 96 branches per 100,000 people and 790 branches per 10,000 square kilometers, Ethiopia has less than one branch per 100,000 people and Botswana has one branch per 10,000 square kilometers (Beck, Demirgüç-Kunt, and Martinez Peria 2007). Not surprisingly, the share of households with a financial account tends to be higher in countries with denser branch networks (figure 4).

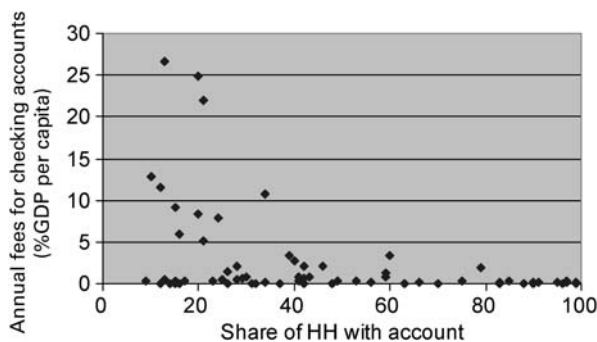
Another barrier is in providing the documents necessary to open an account. Financial institutions usually require one or more documents for identification—such as passports, drivers licenses, pay slips, or proofs of residence—but in many low-income countries a majority of people lack such papers, especially when they are not employed in the formal sector. Furthermore, many institutions have minimum account size requirements or fees: for example, in large parts of Africa it is not unusual for banks to require a minimum deposit equivalent to 50 percent of the population’s per capita GDP to open a checking account (Beck, Demirgüç-Kunt, and Martinez Peria 2008). High fees to maintain checking accounts can exclude large parts of the population, as illustrated in figure 5.

Figure 4. Financial Inclusion and Branch Penetration



Source: Beck, Demirgüç-Kunt, and Martinez Peria (forthcoming).

Figure 5. Financial Inclusion and Affordability



Source: Beck, Demirgüç-Kunt, and Martinez Peria (forthcoming).

These barriers to access vary significantly across countries. Lower barriers tend to be associated with more open and competitive banking systems, which are characterized by: private ownership of banks; foreign bank participation; stronger legal, information and physical infrastructures; regulatory and supervisory approaches that rely more heavily on market discipline; and greater transparency and freedom for the media (Beck, Demirgüç-Kunt, and Martinez Peria 2008). While these are simple correlations, they hold even when controlling for the level of economic development, thus providing a sense of what policies are associated with more inclusive financial systems.

The measurements mentioned above all refer to the formal financial sector, reflecting the view that formal finance potentially offers considerable advantages over the informal. The alternative argument—that informal financial systems may substitute for formal—has been canvassed for the case of China by Allen,

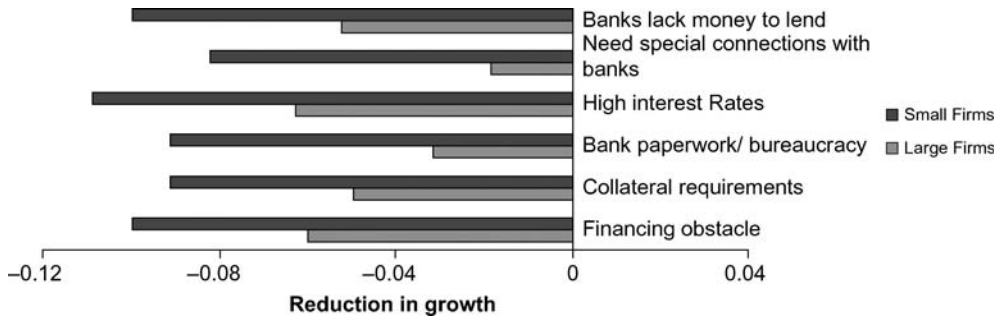
Qian, and Qian (2005, 2008). But their line of reasoning assumes obstacles to formal financial development such as restrictions on entry and pervasive state ownership of banks. Even if informal finance operates in such conditions, it is just a second-best solution. Besides, informal sources of finance vary widely in their effectiveness. Ayyagari, Demirgüç-Kunt, and Maksimovic (2007b) provide evidence from China that, on average for the firms in their sample, access to formal finance was associated with faster firm growth while the use of informal financial sources was not.

However, access indicators are just that—indicators. While they are linked to policy, they are not policy variables. Thus, examining indicators is only the beginning of the effort. To understand the impact of financial access and to design better policy interventions it is necessary to collect and analyze in-depth household and enterprise information on access to and use of financial services. Better data and analysis will help us assess which financial services (savings, credit, payments, or insurance) are the most important for development outcomes and will suggest which cross-country indicators are worth tracking over time.

Evaluating the Impact of Access to Finance for Firms

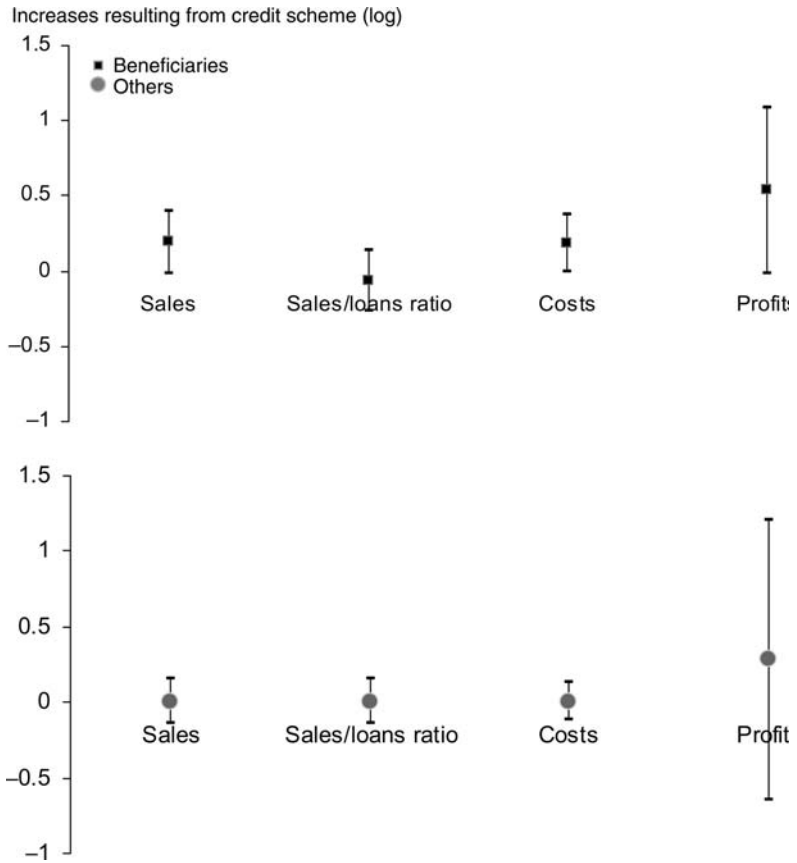
One of the important channels by which finance promotes growth is through the provision of credit to the most promising firms. Recent research utilizing detailed firm-level data and survey information provides direct evidence on how access constraints affect firm growth. Analysis of survey data suggests that firms, particularly small firms, not only often complain about lack of access to finance, but actually have slower growth rates (figure 6; Beck, Demirgüç-Kunt, and Maksimovic 2005; Beck and others 2006). The findings of these broad cross-country regressions are supported by individual case studies utilizing detailed loan and borrower information. Specifically, Banerjee and Duflo (2004) studied detailed loan information on 253 small- and medium-sized borrowers from an Indian bank both before and after they became eligible for a directed credit program.⁵ They showed that these firms expanded after becoming eligible, suggesting that they were previously constrained by their lack of credit (figure 7). Experimental evidence from Mexico and Sri Lanka confirms the marginal productivity of micro-entrepreneurs without access to financing (De Mel, McKenzie, and Woodruff 2008a; McKenzie and Woodruff 2008). Micro-entrepreneurs in these two countries were randomly given grants to purchase inputs and saw returns of 5 to 20 percent per month compared to micro-entrepreneurs that did not benefit from these grants. These case studies show that access to external finance has strong positive impacts on firm growth, especially on small and micro-enterprises.

Figure 6. The Effect of Financing Constraints on Growth: Small vs. Large Firms



Source: Beck, Demirgüç-Kunt, and Maksimovic (2005).

Figure 7. Response of Beneficiaries and Nonbeneficiaries under a Credit Scheme



Note: Error bars indicate 95 percent confidence levels.

Source: Based on Banerjee and Duflo (2004).

Access to finance and the associated institutional underpinnings favorably affect firm performance along a number of different channels. Functional improvements in the formal financial sector can reduce financing constraints more for small firms and others who have difficulty in either self-financing or finding private or informal sources of funding. Research indicates that access to finance promotes more start-ups: it is smaller firms that are often the most dynamic and innovative (Klapper, Laeven, and Rajan 2006). Not only do countries with financial barriers lose the growth potential of these enterprises, they also risk missing opportunities to diversify into new areas. Financial inclusion also enables established firms to reach a larger equilibrium size by exploiting growth and investment opportunities (Beck, Demirgüç-Kunt, and Maksimovic 2006). Furthermore, greater financial inclusion allows firms both the choice of more efficient asset portfolios and a greater ability to innovate (Claessens and Laeven 2003; Ayyagari, Demirgüç-Kunt, and Maksimovic 2007a).

If stronger financial systems can promote new-firm entry, enterprise growth, innovation, equilibrium size, and risk reduction, then they will almost inevitably improve aggregate economic performance. It is important to note that finance does not raise aggregate firm performance uniformly, but transforms the structure of the economy by impacting different types of firms in different ways. At any given level of financial development, small firms have more difficulty than large ones in accessing external finance. However, research shows that small firms benefit the most from financial development both in terms of entry and seeing their growth constraints relaxed (Beck, Demirgüç-Kunt, and Maksimovic 2005; Klapper, Laeven, and Rajan 2006). Financial deepening can also increase incentives for firms to incorporate in order to benefit from the resulting opportunities of risk diversification and limited liability (Demirgüç-Kunt, Love, and Maksimovic 2006). Financial deepening can also help foster more independent enterprises, moving economies away from the predominance of family-owned firms or business groups (Rajan and Zingales 2003). Hence, inclusive financial sectors also have critical consequences for the composition and competition in the enterprise sector.

Firms finance their investments and operations in many different ways, reflecting a wide range of both internal and external factors. The availability of external financing depends not only on each firm's individual situation, but on the wider policy and institutional environment supporting the enforceability and liquidity of the contracts that are involved in financing firms. Availability also depends on the existence and effectiveness of a variety of intermediaries and ancillary financial firms that help connect fund providers and users. Bank finance is typically the major source of external finance for all firms, regardless of size (Beck, Demirgüç-Kunt, and Maksimovic 2008). Modern trends toward transactional lending suggest that improvements in information availability (for example, through

development of credit registries) and technological advances in analysis of these improved data (such as use of automated credit appraisal) are likely to improve access of small and medium enterprises (SMEs; Brown, Jappelli, and Pagano, forthcoming). Provided that the relevant laws are in place, asset-based lending—such as factoring, fixed-asset lending, and leasing—are other technologies which can also release sizable financing flows even for small and non-transparent firms.⁶

However, relationship lending—lending based on the loan officer's personal assessment of the borrower and their long-term and repeated contractual arrangements—will remain important in environments with weak infrastructures and informal economic activity. Relationship lending is costly for the lender and requires either high spreads or large volumes to be viable. If the customer's credit-worthiness is hard to evaluate, then there may be no alternative to relationship lending. Indeed, limited access to credit in some difficult environments may be attributable to existing intermediaries reluctance to participate in relationship lending on a small scale (Honohan and Beck 2007).

Globalization of finance can also play a part in improving access, by increasing both the flow of investable funds and the efficiency of capital allocation. The most important contribution of international financial service providers, and especially foreign direct investment (FDI), is often their expertise. Considerable South-South technology transfer continues to occur between microfinance providers, reflecting the leadership role that MFIs in developing countries have had in extending access. Only recently many mainstream banks have become interested in profitable provision of financial services to micro, small, and medium enterprises. Their contributions to financial access have always been controversial, however, partly for political reasons. Foreign owners bring capital, technology, know-how, and independence from local business and political elites, but debate continues over whether they have improved access. Most foreign banks are relatively large and do not concentrate on SME lending, choosing instead to stick mainly to the banking needs of larger firms and of individuals with high net worth (Mian 2006). Nonetheless, the increased competition for large customers often drives local banks to focus more on providing profitable services to segments which they had neglected. The balance of a large body of evidence suggests that opening to foreign banks is likely to improve access of SMEs over time, even if the foreign banks often confine their lending to large firms and government. Other evidence, however, has shown that foreign banks use their expertise and technology to go down-market and cater to SMEs' needs (De la Torre, Martinez Peria, and Schmukler 2008). The aggregate evidence is mostly positive: in countries where foreign banks represent a relatively large share of the market, firms are less likely to report access to finance as a problem, regardless of whether they are small, medium, or large (Clarke, Cull, and Martinez Peria 2006). In contrast, the

performance of state-owned banks in this dimension has tended to be poor (La Porta et al., 2002).

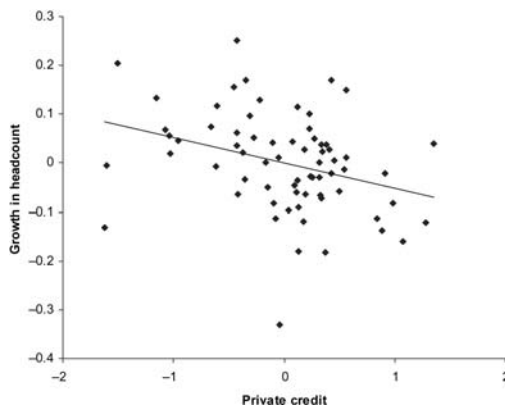
Non-bank finance remains much less important in most developing countries, but it can play an important role in improving the price and availability of long-term credit to small borrowers. Bond finance can provide a useful alternative to bank finance but has limited potential, as shown by the example of the Korean bond market that emerged after a crisis curbed bank lending (Gormley, Johnson, and Rhee 2006). It was mostly larger enterprises that could tap this bond market due to the public's expectations that large enterprises were too big to fail and would be bailed out by government; expectations which were fulfilled after the 1999 collapse of the large company Daewoo.

The emergence of a large market in external equity requires strong investor rights and transparency; these allow for capital inflows that can greatly improve access and lower costs, including for smaller firms which benefit from spill-over effects. This is true both for portfolio equity investments and for FDI and private equity, which are likely to become increasingly important in the future. However, investor rights and transparency might not be enough to foster liquid equity markets: a critical mass of issues, issuers, and investors is also necessary (De la Torre, Gozzi, and Schmukler 2006). While opening up a country's equity market and allowing local firms to list in a foreign stock exchange can both improve access and cost of equity finance for large local firms (Aggarwal, Klapper, and Wyssocki 2005) and help import corporate governance (Coffee 2002), it can also result in a loss of liquidity for small local firms (Levine and Schmukler 2007). However, the net benefit is not necessarily negative for small firms: improved access to external finance for large firms may spill over to small firms through trade credit and through forcing internal banks to go down-market as they face competition and lose large clients to equity investors.

Evaluating Impact of Access to Finance for Households

Over the long term, economic growth helps reduce poverty and can be expected to lift the welfare of most households. Finance helps reduce poverty indirectly by fostering economic growth. But does financial deepening help all population segments to the same extent? Evidence suggests that, overall, financial development is not only pro-growth, but also pro-poor. There is econometric evidence that financial development disproportionately boosts the income growth of the lowest income quintile and reduces the share of people living on less than a dollar per day (figure 8; Honohan, 2004; Beck, Demirgüç-Kunt and Levine, 2007). This effect is not only statistically, but also economically significant. Even after controlling for other factors, variation in financial development accounts for 30 percent

Figure 8. Financial Depth and Poverty Alleviation



Note: Data averaged over period 1980–2005, controlling for initial level of headcount.

Source: Beck, Demirguc-Kunt, and Levine (2007).

of the total cross-country variation in changing poverty rates. Consider the example of Chile and Peru. While the share of the population living on less than one dollar per day fell by an average of 14 percent a year in Chile between 1987 and 2000, it rose by a similar rate in neighboring Peru. Cross-country regressions suggest that if Peru had started with as deep a financial system as Chile (private credit of 47 percent rather than 17 percent), its poverty count in 2000 would have been only 5 rather than the actual 10 percent of the population.

In this process, how important is the direct provision of financial services to poor households and individuals? Existing evidence suggests that direct effects of access to finance might be less important than indirect second-round effects created through more efficient product and labor. First, consider the different results from aggregate cross-country regressions and micro-studies. While cross-country comparisons suggest that financial depth (as opposed to financial inclusion) has a statistically and economically strong impact on poverty alleviation, micro-studies studying individuals' credit access without considering spill-over effects can provide only a tenuous picture of profit or welfare outcomes (Morduch 1998; Pitt and Khandker 1998; Coleman 1999; Karlan and Zinman 2006).

Careful country studies provide a different approach to assess the channels through which financial deepening helps reduce poverty. Evidence from the United States' experience suggests that the income distribution decline following branch deregulation was due to the increased participation of unskilled individuals in the labor market, closing the income gap between skilled and unskilled and tightening the income distribution (Beck, Levine, and Levkov 2007).

Financial liberalization had no significant effect on human capital accumulation, nor did the following increase in entrepreneurship contribute to the tightening of the income distribution. Similarly, general equilibrium models (using micro-data for Thailand and taking into account labor market effects) suggest that finance's main impact on income inequality comes not through broadening access to credit, but through higher wages and including a larger share of the population in the formal economy (Gine and Townsend 2004). Hence, the favorable effect of finance on poverty may *not* be coming mainly through direct provision of financial services to the poor. Pro-poor financial policy should therefore certainly not neglect the importance of fostering more efficient capital allocation through competitive and open financial markets.

By no means does this imply that improving access to financial services should not be a policy goal. With as few as 20 to 50 percent of the worldwide population having an account at a formal or semi-formal financial intermediary, there is considerable scope for improvement. Even non-poor households and micro and small enterprises are excluded from all but the most basic financial services (De Mel, McKenzie, and Woodruff 2008b). Therefore, for the most part improving the quality and efficiency of services without broadening access is likely to be insufficient as it will leave large segments of the population, and their talents and innovative capacity, untapped. Providing better financial access to these excluded non-poor micro and small entrepreneurs can have a strongly favorable indirect effect on the poor. Hence, to promote pro-poor growth it is important to broaden the focus of attention from finance for the poor to improving access for all excluded parties (Rajan 2006). However, this evidence also suggests that the discussion should be broadened to financial services other than credit.

There are many reasons why the poor do not have access to financial services. Social as well as physical distance from the formal financial system may matter. The poor may not have anybody in their social network who understands the various services that are available to them. Lack of education may make it difficult for them to fill out loan applications, and the small number of transactions they are likely to undertake may make the loan officers think it is not worthwhile to help them. Mainstream financial institutions are more likely to locate their retail outlets in relatively prosperous neighborhoods, explaining why the poor are often located far from banks. Even if financial service providers are nearby, in some cases poor clients may encounter prejudice, even being refused admission to banking offices. Specifically for access to credit services, there are two important problems. First, the poor have no collateral and cannot borrow against their future income because they tend not to have steady jobs or income streams to keep track of. Second, dealing with small transactions is costly for the financial institutions.

The new wave of specialized microfinance institutions serving the poor has tried to overcome these problems in innovative ways.⁷ Loan officers go to the poor, instead of waiting for the poor to come to them. Group lending schemes improve repayment incentives and monitoring through peer pressure, while building support networks and educating borrowers (Ghatak and Guinnane 1999; Karlan and Valdivia 2006; Karlan 2007). Increasing loan sizes as customers continue to borrow and repay reduces default rates. The effectiveness of these innovations in different settings is still being debated. Recently, many MFIs have moved away from group lending products to individual lending, especially in cases where the borrowing needs of customers starts to diverge; initial evidence has shown both techniques to be successful (Gine and Karlan 2006).

Over the past few decades, microfinance institutions have managed to reach millions of clients and have achieved impressive repayment rates, forcing economists to reconsider whether it is really possible to make profits while providing financial services to some of the world's poorest individuals. Indeed, mainstream banks have begun to adopt some of the techniques of the microfinance institutions and to enter some of the same markets. For many, however, the most exciting promise of microfinance is that it could reduce poverty without requiring ongoing subsidies. But has microfinance been able to meet this promise?

While many heartening case studies are cited—from contexts as diverse as slums of Dhaka to villages of Thailand to rural Peru—the overall impact microfinance has had on poverty is still unclear. The uncertainty in evaluating impact is due to methodological difficulties, such as selection bias. Rigorous micro-studies compare groups of borrowers to non-borrowers, controlling for individuals' characteristics and using eligibility criteria or random assignment as identification restriction to overcome problems of unobserved borrower characteristics being correlated with outcomes. While some of these studies have shown a positive impact of access to credit (Karlan and Zinman, forthcoming), some have not (Coleman 1999) and some have depended on the econometric methodology utilized (Morduch 1998; Pitt and Khandker 1998). It is important to note that income is only one measure of welfare in the case of households. Analyses have shown that consumption smoothing, not having to use child labor as buffer in times of negative income or health shocks, and increasing women's participation in family and community decisions are other important welfare indicators. However, these analyses of financial access have mostly used proxy variables, such as durable asset holding and proximity to a bank branch.

Although the attention of microfinance has traditionally focused on the provision of credit for very poor entrepreneurs and enthusiasts often emphasize how the productivity and growth potential of borrowers will be unleashed by microfinance, much of micro-credit is not used for investment. Instead, a sizable fraction of microcredit goes to meet important consumption needs (Johnston and

Morduch 2008). These are not a secondary concern. For poor households, credit is not the only or in many cases the primary financial service they need: good savings and payments services (including international remittances) and insurance may rank higher. For example, one of the reasons why the poor may not save in financial assets may be the lack of appropriate products, such as simple transaction or savings accounts rather than costly checking accounts. Research by Ashraf, Karlan, and Yin (2006a, 2006b, 2006c) has shown that innovative savings products (such as collecting deposits directly from customers) and savings commitment products can increase savings. The demand for microcredit used for consumption purposes could thus signal a demand for more appropriate savings products.

One of the most controversial questions about microfinance is the extent of subsidy required to provide access. Although group lending and other technologies are employed to overcome the obstacles involved in delivering services to the poor, these are nevertheless costly technologies and the high repayment rates have not always translated into profits. Overall, much of the microfinance sector—especially the segment that serves the poorest individuals—still remains heavily dependent on grants and subsidies. Recent research confirms that there is a trade-off between profitability and serving the poorest population segments (Cull, Demirgüç-Kunt, and Morduch 2007).

Then the question remains whether finance for the very poor should be subsidized and whether microfinance is the best way to provide those subsidies. Answering this question requires comparing costs and benefits of subsidies in the financial sector with those in other areas, such as education and infrastructure. There is likely to be a better case for subsidizing savings and payments services, which can be seen as basic services necessary for participation in a modern market economy, compared to credit services. In the case of credit encouraging and taking advantage of technological advances—which are becoming more wide-spread and fast-paced due to globalization—may be more promising than providing subsidies, given the negative incentive effects of subsidies on repayment and the potential disincentives for service providers in adopting market-based innovations.

Perhaps more importantly, as we already discussed, the greatest benefits for poor households require a strategy that goes well beyond credit. It is not only the poor that lack access to formal financial services. The limited access to financial services by non-poor entrepreneurs is likely to be even more important for growth and overall poverty reduction. There are also good political economy reasons to focus on ways to make financial services available for all: defining the problem more broadly would help mobilize the efforts of a much more powerful political constituency, increasing the likelihood of success.

Policies to Broaden Access

Since expanding access remains an important challenge even in developed economies, it is not enough to say that the market will provide. Market failures related to information gaps, the need for coordination on collective action, and concentrations of power mean that governments everywhere have an important role to play in building inclusive financial systems (Beck and de la Torre 2007). However, not all government action is equally effective and some policies can even be counterproductive. Direct government interventions to support access require a careful evaluation which is often missing.

Even the most efficient financial system, supported by a strong contractual and information infrastructure, faces limitations. Not all would-be borrowers are creditworthy and there are numerous examples of national welfares that have been damaged by overly relaxed credit policies. Access to formal payment and savings services can approach universality as economies develop, although not everyone will or should qualify for credit. For example the sub-prime crisis in the United States graphically illustrates the consequences of encouraging low-income households to borrow beyond their ability to repay.

An underlying, albeit often long-term, goal is deep institutional reform ensuring security of property rights against expropriation by the state. Prioritizing some institutional reforms over others, however, would help focus reform efforts and produce impact in the short- to medium-term. Recent evidence suggests that, in low-income countries, it is the information infrastructures that matter most, while in high-income countries enforcement of creditor rights is more important. Cross-country variation in financial depth can be explained in low-income countries by the existence of credit information systems but not by the efficiency in contract enforcement, and in the case of high-income countries results are reversed (Djankov, McLiesh, and Shleifer 2007). The recent case of a Guatemalan microfinance institution that joined a credit bureau demonstrates the positive effects that introducing credit registries has on reducing adverse selection and moral hazard. Given that borrowers were only informed that their information was shared after the fact, this entry allowed researchers to identify and quantify the dampening effect of credit information sharing on loan default rates (de Janvry, Sadoulet, and McIntosh 2006).

But even within the contractual framework there are certain shortcuts to long-term institution building. In relatively underdeveloped institutional environments procedures that enable individual lenders to recover on debt contracts (for example, those related to collateral) are more important in boosting bank lending than those procedures mainly concerned with resolving conflicts between multiple claimants (for example, bankruptcy codes; Haselmann, Pistor, and Vig 2006). Given that it is potentially easier to build credit registries and reform

procedures related to collateral than to make lasting improvements in the enforcement of creditor rights and bankruptcy codes, these are important findings for prioritizing reform efforts. Introducing expedited mechanisms for loan recovery can be helpful, as shown in the example of India where a new mechanism bypassing dysfunctional court procedures increased loan recoveries and reduced interest rates for borrowers (Visaria, forthcoming).

Results can be produced relatively fast by encouraging both improvements in specific infrastructures (particularly in information and debt recovery) and the launch of financial market activities that can allow technology to bring down transaction costs. Some examples of these market activities are as follows: establishing credit registries or issuing individual identification numbers to establish credit histories; reducing costs of registering or repossessing collateral; and introducing specific legislation to underpin modern financial technology, from leasing and factoring to electronic-finance and mobile-finance. These can produce results relatively fast, as the success of m-finance in many Sub-Saharan African countries has shown, most recently MPesa in Kenya (Porteous 2006).

Encouraging openness and competition is also an essential part of broadening access, as it both encourages incumbent institutions to seek out profitable ways of providing services to the previously excluded segments of the population and increases the speed with which access-improving new technologies are adopted. Foreign banks can play an important role in fostering competition and expanding access (Claessens, Demirgüç-Kunt, and Huizinga 2001; Claessens and Laeven 2004).

In this process, providing the private sector with the right incentives is key, hence the importance of good prudential regulations. Competition that helps foster access can also result in reckless or improper expansion if not accompanied by a proper regulatory and supervisory framework. As increasingly complex international regulations such as Basel II are imposed on banks to help minimize the risk of costly bank failures, it is important to ensure that these arrangements do not inadvertently penalize small borrowers by failing to make full allowance for the risk-pooling potential of a portfolio of SME loans. Research suggests that while banks making small loans have to set aside larger provisions against the higher expected loan losses from small loans—and therefore need to charge higher rates of interest to cover these provisions—they should need relatively less capital to cover the upper tail of the distribution and support the risk that losses will exceed their expected value (i.e., to cover what are sometimes known as “unexpected” loan losses; Adasme, Majnoni, and Uribe 2006).

A variety of other regulatory measures is needed to support wider access. But some policies that are still widely used do not work. For example interest ceilings fail to adequately provide consumer protection against abusive lending, as banks replace interest with fees and other charges. Increased transparency,

formalization, and enforcement of lender responsibility offer a more coherent approach, along with support for the over-indebted (Honohan 2004). However, delivering all of this can be administratively demanding.

The scope for direct government interventions in improving access is more limited than often believed. There is a large body of evidence that suggests interventions to provide credit through government-owned financial institutions have generally not been successful (La Porta, Lopez-de-Silanes, and Zamarripa 2003; Levy-Yeyati and Micco, 2007). One of the reasons is that lending decisions are based on the political cycle rather than socio-economic fundamentals, as both cross-country evidence and a carefully executed case study for India show (Cole 2004; Dinç 2005).

In non-lending services, the experience of government-owned banks has been more mixed. A handful of governmental financial institutions have moved away from credit and evolved into providers of more complex financial services, entering into public/private partnerships to help overcome coordination failures, first-mover disincentives, and obstacles to risk sharing and distribution (de la Torre, Gozzi, and Schmukler 2007). A good example is the setup of an electronic factoring platform by a Mexican development bank (NAFIN) that brings together small suppliers, large purchasers, and banks. Ultimately, these successful initiatives could have been undertaken by private capital, but the state had a useful role in jump-starting these services. Direct intervention through taxes and subsidies can be effective in certain circumstances, but experience suggests that this intervention is more likely to have significant unintended consequences in finance compared to other sectors.

With direct and directed lending programs discredited in recent years, partial credit guarantees have become the direct intervention mechanism of choice for SME credit activists. Some seem to be functioning well, breaking even financially thanks to the incentive structure built into the contract between the guarantor and the intermediary banks. For example, the Chilean scheme has the intermediary banks bidding for the percentage rate of guarantee and they can adjust the premium charged on the basis of each intermediary's claims record. This has resulted not only in higher lending by beneficiaries, but in a reduction of loan losses (Cowan, Drexler, and Yañez 2008). However, other partial credit guarantees have been poorly structured, embodying sizable hidden subsidies and benefiting mainly those who do not need the subsidy. A careful study of the French guarantee schemes shows that, on the one hand, lending to beneficiaries has increased while no new borrower has benefited. On the other hand, loan losses rose, suggesting that increased risk-taking resulted in high costs for taxpayers (Lelarge, Sraer, and Thesmar 2008). The temptation for an activist government to under-price guarantees (especially for long-term loans when this will not be detected for years) does present fiscal hazards similar to those which have undermined so

many development banks in the past. In the absence of thorough economic evaluations of most schemes, their net effect in cost-benefit terms remains unclear (Honohan 2008b).

If the interest of powerful incumbents is threatened by the emergence of new entrants financed by a system that has improved access and outreach, lobbying by those incumbents can block the needed reforms (Perotti and Volpin 2004). A comprehensive financial sector reform approach aiming at better access must take these political realities into account. Given that both financial inclusion and benefits from broader access go well beyond ensuring financial services for the poor, defining the access agenda more broadly to include the middle class will help mobilize greater political support for advancing the agenda around the world (Rajan 2006).

Looking Forward: Directions for Future Research

While this paper reviews and highlights a large body of research, it also identifies many gaps in our knowledge. Much more research is needed to measure and track access to financial services, to evaluate its impact on development outcomes, and to design and evaluate policy interventions.

New development theory links the dynamics of income distribution and aggregate growth in unified models. However, while there are good conceptual reasons for believing financial market frictions exert a first order impact on the persistence of relative income dynamics, there is too little theory examining how reducing these frictions impacts the opportunities faced by individuals and the evolution of relative income levels. Future theoretical work could usefully study and provide new insights on the impact of financial sector policies on growth and income distribution within the context of these models.

Lack of systematic information on access is one of the reasons why there has been limited empirical research on access. The efforts described above in developing cross-country indicators of access are only first steps in this direction. This work should be continued and expanded, increasing coverage of countries, institutions, and types of available services. Building data sets that benchmark countries annually would help focus policymaker attention and allow us to track and evaluate reform efforts to broaden access.

While cross-country indicators of access are useful for benchmarking, micro data at the household and enterprise level is required to be able to assess the impact of access on outcomes such as growth and poverty reduction. There are few household surveys focusing on financial services. Efforts to collect this data systematically around the world are important in improving our understanding of access. Indeed, household surveys are often the only way to get detailed

information on who uses which financial services from which types of institutions, including informal ones.

Emerging evidence suggests that financial development reduces income inequality and poverty, yet we are still far from a complete understanding of the channels through which this effect operates. We are more advanced in understanding the finance-growth channel: a clear and important role for firms' access to finance has been established from promoting entrepreneurship and innovation to improve asset allocation and firm growth. But how does finance influence income distribution? How important is direct provision of finance for the poor? Is it more important to improve the functioning of the financial system to foster access to its existing firm and household clients or is it more important to broaden access to the underserved (including the non-poor who are often excluded in many developing countries)? Results of general equilibrium models and evidence at the aggregate level hint that direct access of the poor may be less important, and the knowledge that a large proportion of the non-poor are also excluded in many developing countries suggests that just improving efficiency may not be enough. Of course, efficiency and access dimensions of finance are also linked; in many countries improving efficiency would necessarily entail broader access beyond concentrated incumbents. More research is needed to sort out these effects.

In evaluating impact, randomized field experiments are promising. By introducing a random component to assignment of financial products, such as financial literacy training or random variation in the terms or availability of credit to micro-entrepreneurs and households, research can illustrate how removing barriers and improving access affects growth and household welfare. More experiments need to be conducted in different country contexts, focusing on different dimensions of access. Ultimately, it is this welfare impact that should inform which access indicators should be tracked and how policy should be designed.

Policies to broaden access can take many forms, from improvements in the functioning of mainstream finance to innovations in microfinance. Lack of careful evaluation of different interventions makes it difficult to assess their impact and draw broader lessons. More research in this area would also help improve design of policy interventions to build more inclusive financial systems.

Notes

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interpretations, and conclusions are entirely those of the authors and do not necessarily represent the views of the World Bank, its Executive Directors, or the countries they represent.

1. See Levine (2005) for an overview of the theoretical and empirical literature.
2. See Demirgüç-Kunt and Levine (2007) for an overview.
3. For example, Sachs writes: "When people are . . . utterly destitute, they need their entire income, or more, just to survive. There is no margin of income above survival that can be invested for the future. This is the main reason why the poorest of the poor are most prone to becoming trapped with low or negative economic growth rates. They are too poor to save for the future and thereby accumulate the capital that could pull them out of their current misery." (2005: 56–57)
4. For cross-country analysis, see Beck, Demirgüç-Kunt, and Levine (2007) and Honohan (2004). For micro-level analysis, see among others Jacoby (1994), Guarcello, Mealli, and Rosati (2003), Jacoby and Skoufias (1997), and Beegle, Dehejia, and Gatti (2007) on the relation between durable asset holding, education, and child labor.
5. The size definition of Banerjee and Duflo's program was changed in 1998, which enabled a new group of medium-sized firms to obtain loans at subsidized interest rates.
6. See Berger and Udell (2006) for a discussion.
7. See Armendariz de Aghion and Morduch (2005) for an overview.

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