

Information Sharing in Financial Markets

LACK of information about creditors is a major impediment to the extension of credit. The forward-looking nature of credit contracts, which involve a promise to pay over time, makes the identity and intentions of the buyer a critical factor in the likelihood of repayment, and thereby profitability, of the loan. Information on potential borrowers and their investment projects is typically only partially disclosed to lenders. This can lead to several problems for lenders, the most notable being moral hazard. That is, once a loan is made, the possibility arises that the borrower may try to avoid repaying the loan or take actions that increase the risk of the investment project. Not knowing in advance what type of borrower is asking for credit (one that usually repays debts or one that does not) may lead to credit rationing.¹ One way of reducing this problem is through institutions that provide information about potential clients.

Information sharing among banks about their borrowers is crucial to financial markets. In short, the argument follows these lines: If a borrower does not repay his bank and other banks do not know about it, the faulty client can go to any other bank and ask for a loan, and his cost of defaulting on his loan obligations is relatively low. If other banks know about his behavior, however, then it will be more difficult to access credit once he has defaulted. Information sharing among lenders makes a borrower's default costs higher. Pagano and Jappelli (1993) provide the first rigorous treatment of information sharing mechanisms such as credit registries. They discuss how information sharing can affect the problem of adverse selection and find that the structure of the credit market drives the impact of information sharing on lending. In a competitive market, informational rents fall and lending increases, whereas such benefits do not necessarily accrue when competition is lacking. Padilla and Pagano (1997) show that information sharing can also reduce moral hazard by imposing discipline on credit users.

Although an extensive theoretical literature discusses the role of information in credit markets, much

less attention has been given to the institutional responses that actual lenders have developed to minimize the impact of asymmetric information. One such institutional response is credit registries, also commonly known as credit bureaus, which collect, distribute, and often analyze information on borrower behavior from a variety of sources, including numerous lenders.

Credit registries date back to at least the 19th century. In Latin America and the Caribbean, some of the oldest credit registries were formed by chambers of commerce to record information on customers who did not pay accounts held with merchants. More recently, banks have organized in many countries in the region to share information on delinquent customers. In addition, most central banks or bank superintendencies in Latin America and the Caribbean require supervised financial institutions to provide information on borrowers to a public credit registry, which then makes available a subset of the information to the financial system.

Credit registries have gained in importance in the past 20 years, in both developed and developing countries, due to changes in banking systems and advances in technology. In many countries, the financial system has recently gone through a period of consolidation. Community-based institutions with a limited geographic focus have been acquired or closed in fa-

¹ In this regard there are two types of asymmetries—one related to what a bank knows about its clients and the other related to what a bank knows about clients of other banks. With respect to the first type of asymmetry, an extensive theoretical literature has uncovered the central role it plays in credit markets. Examples are Jaffee and Russell (1976) and Stiglitz and Weiss (1981). Because of asymmetric information between borrowers and lenders, the price of a loan—the interest rate—can hardly be an appropriate way of balancing the supply and demand of financial resources. Stiglitz and Weiss suggest that the structure of the credit market will determine the extent to which either lenders or borrowers benefit from greater transparency of information. However, their analysis is in the context of a one-shot adverse selection model. For the purpose of this chapter, the relevant framework is that of a willingness-to-pay model in a repeated game context that addresses the second type of asymmetry.

vor of large national and even international financial conglomerates. There is evidence that the process of mergers and acquisitions in a financial system results in a loss of institution-specific knowledge on borrowers. In addition, larger institutions often want to centralize the credit decision process. These factors may increase the reliance on and importance of the standardized and easily transmitted information contained in credit registries. In parallel with the shift toward larger banking institutions, there has been rapid growth in computing capacity, which enables lenders to quickly and cheaply access and analyze data on massive numbers of borrowers. Credit-scoring technologies, which provide a numerical ranking of borrower credit quality, have become a central part of the credit decision used in a growing number of credit markets. From their early use in the credit card market, credit-scoring tools are now also a fundamental part of the mortgage market and the small business loan market.²

The small business loan market is perhaps the segment of the credit market where asymmetric information is most pronounced. Independent analysis of most small businesses (through ratings firms or stock prices) is usually not available. Small businesses are also very diverse, so it is difficult to identify clear predictors of success. Further complicating matters is the fact that many small business owners mingle their personal finances with those of their company. In Latin America and the Caribbean, these problems are even greater due to economic volatility, poor accounting standards, and widespread tax evasion.

The traditional response of banks—the main source of untied credit for small firms—has been to put significant resources into studying business plans and cash flows and requiring collateral to back loans.³ This approach is time consuming and results in high fixed costs, making many small business loans too costly to undertake.

Credit registries that collect standardized historical data on borrowers can create a new kind of collateral—reputation collateral—that can help in reducing problems of adverse selection and moral hazard. Credit-scoring technologies that make use of such data greatly reduce per loan costs, thereby opening up new lending opportunities. Data on small businesses and on their owners have proven to be relevant in determining the risk and profitability of small business loans.⁴

WHAT DO CREDIT REGISTRIES DO?

The uses of credit registries varies across countries and to a great extent depends on their ownership structure. While in many countries credit registries are privately owned (private credit registries are usually known as credit bureaus), in several others they are owned by a public institution such as the central bank or the bank superintendency. The uses and functions of both public and private registries depend on several aspects. When both types of registries exist, their role is not necessarily the same. In such cases public credit registries might just collect basic information on borrowers, and private ones might focus on more detailed information that complements that of the public credit registry. If no private credit registry is available, it is likely that the public registry has to serve all the information sharing services.

Most Latin American and Caribbean countries have both types of credit registries. Only in Colombia and Panama is there no public credit registry; all countries except Ecuador, Honduras, Nicaragua, and Venezuela have a private credit bureau. This chapter discusses the differences in the coverage, amount of data compiled, and distribution methods of both types of institutions. In general, private credit bureaus compile more information, from more sources, and distribute it to more institutions than public credit registries do. This does not necessarily mean that private credit bureaus are better than public ones; it might just mean that they play different roles.

Public credit registries might also be used for pru-

² The downside of bank consolidation with respect to credit bureaus is that the incentives to share information can decrease as bank size increases. It is surely more in the interest of small banks to share information than it is for large banks.

³ Trade or supplier credit is perhaps the most common type of credit for small firms, but it is tied to specific purchases or transactions and usually very short term (30–90 days). The prevalence of trade credit in the small business market is likely due, at least in part, to the information advantages enjoyed by firms that share business relationships.

⁴ The most common U.S. small business credit-scoring product, which is sold by the Fair Isaac Corporation, makes use of information on both small businesses and their owners in creating the firm score. This credit-scoring product is used extensively in the small business market and has reduced loan processing times from hours or days to minutes. Nonetheless, it is the consumer side of credit registries rather than the small and medium enterprise side that has developed most throughout the world. In part the incentives for sharing small and medium enterprise data might be different from those for sharing consumer data. Banks spend resources finding and building relationships with small and medium enterprises. It is likely that, given the cost of building those relationships, banks might not want to share information on these clients (at least immediately).

dential supervision purposes. As discussed in Falkenheim and Powell (2003), credit registries can play an important role in assessing whether capital and provisioning regulations match up to actual lending risks. Further discussion on these issues is presented in Chapter 16. The rest of this chapter concentrates on the uses of credit registries to diminish information asymmetries and expand credit market access.

Empirical evidence on this particular role of credit registries is scarce. However, a few recent studies have shown that the availability of information is crucial for sound lending decisions. Greater availability of information stimulates financial development, reduces default rates, and increases access to credit (Barron and Staten 2003). Accurate credit information has substantially greater predictive power for the performance of firms than the data contained in financial statements (Kallberg and Udell 2003).

Credit registries play a substantial role in the development of credit markets. A simple regression experiment reported in Appendix 13.1 reveals the importance of this relationship when controlling for other factors that affect financial development, such as the rule of law, creditor rights, inflation, the log of gross national product, and previous economic growth rates.⁵ Regression results suggest that, on average, countries with credit registries have nearly 9 percentage points greater financial development compared with countries without them.⁶

It is interesting to note that the relationship between the existence of credit registries and the development of credit markets varies depending on the level of financial development of the country. Countries below the median of financial development appear to benefit more from the advantages of having credit registries than do more developed ones. According to the estimates reported in Table 13.1, based on the empirical results in Appendix 13.1, having a credit registry corresponds to nearly 10 percentage points greater financial development in countries below the median level of financial development. The contribution of having a credit registry to the level of development of the credit market diminishes as financial development increases. This is consistent with the presumption that countries with lower financial development suffer more from problems derived from information asymmetries than do more developed ones. Moral hazard, for example, may be more pronounced in such countries. Therefore, mechanisms to partially alleviate such problems at a low stage of financial development may make a notable contribution.

Credit registries also contribute to the development of financial markets by diminishing some vulner-

TABLE 13.1 THE VALUE OF A CREDIT REGISTRY FOR FINANCIAL DEVELOPMENT
(Percentage points of GDP)

Quantile of financial development	Increase in financial development
15	9.4
25	9.0
50	10.2
75	7.3
85	1.7
Average country	9.6

Source: IDB calculations.

abilities. The proper use of credit registries can reduce the nonperforming loan ratio of a banking institution by allowing creditors to sort good and bad debtors before granting credit. Jappelli and Pagano (2001) find that the performance of credit registries—proxied by the number of years they have operated and the type of information they share (positive, negative, or both)—has a significant negative effect on nonperforming loans. Box 13.1 reports additional evidence on the impact of the use of credit registries on nonperforming loans specific to Latin American countries.

Better-informed lenders are able to provide better financial services to borrowers. In countries where credit bureaus are more developed, firms face less severe financial constraints. These results apply for large firms as well as for small and medium-size enterprises. In countries where credit registries are developed, large firms listed on the stock market face lower financial constraints and are allowed to invest more than in countries where credit registries are less developed.⁷ In addition,

⁵ Even excluding the United States, the results are the same.

⁶ Jappelli and Pagano (2003) provide similar results by showing that the performance of credit registries, proxied by the number of years they have operated and the type of information that they share (positive, negative, or both), has a significant positive impact on the amount of consumer credit (relative to gross national product) granted by the financial sector and the total amount of credit as well.

⁷ Galindo and Miller (2001) focus on a structural empirical question related directly to the microeconomics of credit markets. They use firm-level data for more than 20 countries to explore whether the performance of credit registries has an impact on the financial constraints faced by listed firms. The authors find that information sharing institutions reduce the degree to which firms are credit constrained.

BOX 13.1 | NONPERFORMING LOANS AND THE USE OF CREDIT REGISTRIES IN LATIN AMERICA

Data from bank balance sheets and information from a survey on how Latin American banks use credit registries (carried out by the Inter-American Development Bank and the World Bank) confirm that the use of credit registries can help reduce default risk.¹ Nearly 200 banks in Bolivia, Brazil, Chile, Colombia, Costa Rica, El Salvador, and Peru answered the survey, which took place in 2002. The findings are based on regression analysis that controls for bank-specific characteristics such as bank ownership and loan structure (consumer credit, corporate credit, and small and medium-size enterprise loans) and countrywide effects.

The dependent variable in this study is the rate of nonperforming loans to total loans. The results confirm that some banks that use private credit bureaus for their loan decision process have lower lev-

els of nonperforming loans than those that do not. The values in the table below suggest that banks that have a high concentration of credit to small and medium enterprises or a high concentration of consumer loans in their assets benefit from using private credit bureaus and experience lower default rates than those that do not consult them periodically (regression 1). These results do not hold for banks that use public credit registries (regression 2). This difference may occur because of the different roles of private and public credit registries in countries where both types of institutions coexist.

¹ See http://econ.worldbank.org/programs/credit_reporting/topic/2247/.

NONPERFORMING LOANS AND USE OF CREDIT REGISTRIES IN LATIN AMERICA, 1999–2003

Variable	1	2
Foreign ownership of bank (dummy variable)	-1.166 (0.906)	-0.705 (1.019)
Public ownership of bank (dummy variable)	2.939 (1.312)**	1.861 (1.490)
Consumer or small or medium enterprise loans are primary activity	8.756 (3.018)***	3.724 (2.044)*
Bank uses private credit bureau	2.521 (2.219)	
Bank uses private credit bureau * consumer or small or medium enterprise loans are primary activity	-7.758 (3.128)**	
Bank uses public credit registry		1.973 (1.575)
Bank uses public credit registry * consumer or small or medium enterprise loans are primary activity		-2.185 (2.235)
Country effects	Yes	Yes
Number of countries	7	7
Observations	170	149

* Significant at 10 percent.

** Significant at 5 percent.

*** Significant at 1 percent.

Note: The dependent variable is the average number of nonperforming loans/total loans. The estimation method is Tobit. Standard errors are in parentheses.

Source: IDB calculations.

small and medium-size enterprises tend to suffer less from financial constraints in countries that have developed private credit bureaus. Small firms in countries with greater development of credit information systems tend to finance more of their activity with bank credit, as opposed to small firms in countries with lower development of credit registries, where access to credit is a much larger problem.⁸ Interestingly, evidence suggests that private (not public) credit registries are the crucial component in reducing the credit constraints of small and medium-size enterprises.

Given the empirical results available, it is only fair to say that the development of credit reporting systems—in particular private ones—is relevant for financial development, stability, and access to credit. However, information sharing can be difficult, especially in medium-size markets, where banks may be unwilling to disclose information on clients, even if this would reduce their risk; the banks may prefer to maintain their information rents.⁹

CREDIT REPORTING IN LATIN AMERICA AND THE CARIBBEAN

A recent credit registry survey conducted by the World Bank is useful for describing the state of the art in credit registries in Latin America and the Caribbean.¹⁰ The data allow comparisons across countries with respect to several crucial elements of credit registries, in particular the amount of information available in the registries, the type of information reported, the way it is reported, who can access it, and the procedures used to verify the integrity and accuracy of the data. On the basis of this information, this chapter develops a *quality index* for public credit registries and private credit bureaus.

Most Latin American and Caribbean countries have either a public or a private credit registry, and most have both. In terms of the quality of these institutions, countries in the region fare well compared with other regions.¹¹ Table 13.2 summarizes relevant features of private credit bureaus and public credit registries in Latin American and Caribbean countries and provides an index that proxies the amount and quality of information available in the credit registry. As seen in the table, private credit bureaus in Latin American and Caribbean countries score higher in the quality index than other emerging economies and even better than other (besides the United States) countries in the Organisation for Economic Co-Operation and Development (OECD). There is not much variance in the quality index of private credit bureaus throughout the

region; most countries are near the average, and only Argentina and Costa Rica appear particularly high and low, respectively.

The quality of public credit registries in Latin America and the Caribbean is not significantly different from that in the rest of the world. However, the scores tend to be lower than those of private credit bureaus. This may be due to the fact that private credit bureaus tend to complement public credit registries in countries where both types of institutions coexist. Note that in three of the four countries in Table 13.2 that have no private credit bureau but do have a public credit registry, the score of the public credit registry is significantly higher than the regional average of public credit registries and close to the regional average of private credit bureaus. In a sense this indicates that public credit registries are assuming the role of private credit bureaus in some way in Ecuador, Honduras, and Venezuela.

The fact that the quality index suggests that credit bureaus in the region are healthy has been noted previously.¹² A combination of factors explains the health of the index: (i) the absence of laws prohibiting or greatly restricting sharing of credit information within the financial sector; (ii) foreign direct investment in credit registries in the major Latin American markets (Argentina, Brazil, Chile, and Mexico) and many smaller countries; (iii) a history of using credit registries in the retail sector, often organized by chambers of commerce; and (iv) changes in banking systems that encourage information sharing (consolidation of the sector, a return of long-term lending due to macroeconomic stability, and increased foreign presence requiring modernized lending practices).

⁸ See the discussion in Chapter 14 and Love and Mylenko (2003).

⁹ Castelar Pinheiro and Moura (2003) use data from Brazil's largest private credit registry, SERASA, to study sharing of credit information in a highly segmented credit market.

¹⁰ See http://econ.worldbank.org/programs/credit_reporting/topic/2247/.

¹¹ The index reported in Table 13.2 is an average of subindexes that measure the amount of data available on consumer loans, the amount of data available on loans to businesses, the types of loans reported to the credit registry (such as mortgages, credit cards, other consumer loans, and car loans), whether positive as well as negative information on the debtors is reported, the number of creditor institutions that report to the credit registry (such as commercial banks, retail stores that offer credit, and credit card companies), the number of institutions that can access the data, and the number of procedures the registry uses to verify data. Based on this information, seven indexes are constructed with values ranging from 0 to 1. The average of the seven indexes is the credit registry quality index.

¹² See Miller (2003a), Galindo and Miller (2001), and IDB (2001) for discussions on credit registries in Latin America.

TABLE 13.2 CREDIT REGISTRIES IN LATIN AMERICA AND OTHER REGIONS

Country/region	Private credit bureau			Public credit registry		
	Index ^a	Coverage ^b	Date established	Index ^a	Coverage ^b	Date established
Argentina	0.78	475	1957	0.47	149	1991
Bolivia	0.64	134	1994	0.52	55	1988
Brazil	0.74	439	1894	0.59	44	1997
Chile	0.72	227	1919	0.49	209	1977
Colombia	0.70	187	1952	No registry	No registry	No registry
Costa Rica	0.29	55	1996	0.44	7	1996
Dominican Republic	0.68	423	1994	0.27	n.a.	1994
Ecuador	No bureau	No bureau	No bureau	0.66	82	1997
El Salvador	0.55	128	1967	0.51	130	1996
Guatemala	0.67	35	1976	0.43	n.a.	2002
Honduras	No bureau	No bureau	No bureau	0.50	45	1998
Mexico	0.70	382	1995	0.15	n.a.	1964
Nicaragua	No bureau	No bureau	No bureau	0.39	50	1994
Panama	0.62	302	1956	No registry	No registry	No registry
Peru	0.71	185	1888	0.62	92	1983
Uruguay	0.62	479	1915	0.42	49	1982
Venezuela	No bureau	No bureau	No bureau	0.60	97	1975
Latin America	0.65	265		0.47	83	
United States	0.90	810		No registry	No registry	
Other OECD countries	0.48	443		0.53	136	
Other emerging markets	0.47	231		0.52	5	

^a The index ranges from 0 to 1. It is the average of seven subindexes that measure the following: number of institutions reporting data, amount of data reported on individuals, amount of data reported on businesses, number of procedures used to verify data, number of institutions allowed to access the data, if positive and negative information on borrowers is reported, and the number of loan types reported.

^b Coverage reports the number of individuals and/or firms listed in the private credit bureau or public credit registry with current information on repayment history, unpaid debts, or credit outstanding. The number is scaled to the country's population (per 1,000).

Source: The indexes are from IDB calculations based on World Bank surveys of private credit bureaus and public credit registries. Coverage and date established are from the World Bank's Doing Business Website, <http://rru.worldbank.org/DoingBusiness/default.aspx>.

The United States has the most complete and accessible credit reporting system, especially in the consumer credit segment. Compared with Europe, the United States has a more open system for credit reporting and a relatively light regulatory approach.¹³ The European Union has placed a significant regulatory burden on the credit reporting industry, and in 1998 the European Union's Privacy Directive came into effect. That directive greatly limits sharing of personal information, including credit data in credit registries. Some European nations, such as France, have even more stringent laws than the European Union with regard to credit registries. Those laws account for the lower scores of the other OECD category in Table 13.2.

The Latin American nations that fare best are Brazil, Chile, Argentina, and Peru. Brazil has a well-established credit registry in which most banks participate. The Brazilian firm SERASA is by far the largest Latin American credit registry, with annual sales of approximately US\$150 million. In addition to SERASA, the extensive chamber of commerce system in Brazil operates a credit registry and bad check list on a state-

¹³ The United States has allowed a significant degree of self-regulation by the credit reporting industry. However, in 1997 the Fair Credit Reporting Act, which protects consumer rights with regard to credit registries, was amended to address growing consumer concerns about privacy abuses by the industry.

by-state basis. Finally, in 1998 the Central Bank of Brazil established a public credit registry to collect detailed information on all large loans.

Argentina and Chile have strong private credit registries, which are both majority owned by Equifax. In addition, both Argentina and Chile have public credit registries, and much of the data in the Argentine public registry is accessible to the general public via the Internet. In Chile, the Santiago Chamber of Commerce runs one of the region's oldest retail credit databases. The information in this database on consumers is actually superior in some ways (coverage and years of history) to that in the bank-led credit registry. Peru enjoys an unusually active credit reporting industry with at least four credit registries operating in the relatively small economy.

INFORMATION QUALITY

Information asymmetries can be reduced by developing credit bureaus. However, in order to guarantee that the credit bureaus will work, it is also necessary to ensure that the information contained in them is reliable. The most fundamental data in credit registries are related to the proper identification of the debtor and his or her repayment history. Other information, such as the financial standing of the person and the firm, is also relevant, but can be viewed mostly as complementary to the crucial basic set of information.

The quality of the data is related to the procedures followed by credit bureaus and credit registries to verify the data's integrity. Table 13.3 reports on two areas of information that are related to data quality—legal requirements and accuracy checks. The first column shows whether the law requires credit registries to respond to consumer complaints. Presumably, if it does, consumers will be able to contest erroneous information, which is an important step toward improving the quality of the data. Clearly there are many countries in which there are no legal requirements for responding to complaints; that is a feature shared by many other emerging markets. This of course is a source of concern and an area where policy intervention is justified.

Table 13.3 reports an index of procedures used by credit registries to assess the quality of the data. Higher values indicate use of a greater number of procedures to check the integrity of the data. The index reveals a great deal of heterogeneity in Latin America and the Caribbean; nonetheless, the average suggests that the region as a whole fares about average in this indicator, not far from other emerging countries and non-U.S.

TABLE 13.3 DATA QUALITY OF CREDIT REGISTRIES

Country/ region	Legal requirement to respond to complaints ^a	Accuracy checks index ^b	
		Private credit bureau	Public credit registry
Argentina	1	3	4
Bolivia	1	3	1
Brazil	1	4	3
Chile	0	4	3
Colombia	1	3	No registry
Costa Rica	1	0	2
Dominican Republic	0	3	2
Ecuador	1	No bureau	4
El Salvador	0	2	n.a.
Guatemala	0	3	1
Honduras	0	No bureau	2
Mexico	1	2	0
Nicaragua	0	No bureau	1
Panama	0	1	No registry
Peru	1	3	3
Uruguay	0	2	1
Venezuela	0	No bureau	3
Latin America	0.47	2.54	2.14
United States	1	4	No registry
Other OECD countries	1	2.80	3.71
Other emerging markets	0.420	2.60	2.73

^a The number 1 indicates "yes" and 0 "no."

^b The accuracy checks index ranges from 0 to 4 and measures whether credit registries use the following to determine the accuracy of their records: (i) data provided by other financial institutions; (ii) whether consumers can check their data; (iii) statistical checks such as month-to-month comparisons; and (iv) software programs to identify abnormalities in the data.

Source: World Bank data.

OECD countries. In any case, there is room for improvement in this area as well.

Latin American bankers' perception of data quality confirms the information in Table 13.3. On average, Latin American bankers seem satisfied with the quality of the data of the credit registries operating in their countries. Figure 13.1 provides information from a survey of bankers in Latin America that was conducted by the IDB and the World Bank. Except for the perception of bankers in Bolivia about the quality of private credit bureaus, the bankers report an average level of satisfaction regarding the quality of public credit regis-

tries and private credit bureaus. The low values of the private credit bureau index for Bolivia and El Salvador are primarily due to concerns about the accuracy and timeliness of the data in the bureau.

Regarding the quality of complementary information indicating the financial standing of a person or firm, much remains to be done in the region. Unfortunately, Latin American and Caribbean countries have proven weak in the adoption of international accounting and auditing standards (Staking and Schulz 1999), which are essential to ensure the reliability of business data. Many countries are behind in the adoption of global standards, such as the recently updated international accounting standards, and are deficient in the enforceability of auditing standards.

In part, countries have been reluctant to move to international standards because they can be costly. Changing standards could push some firms toward insolvency once more stringent accounting principles are applied. Creditors and clients might lose confidence in firms once their true financial nature is revealed, even in cases when insolvency is not the true scenario.

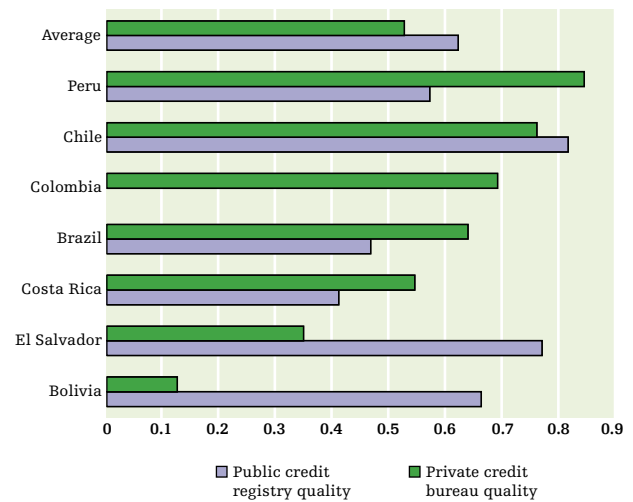
Countries may not have in place incentives to renew standards because, regardless of the standards, capital markets are closed or nearly closed for many countries. However, given the new financing opportunities for Latin American firms through the reemergence of American Depositary Receipts (ADR) trading, new incentives for modernizing standards have appeared. A positive effect of intensive ADR trading is the pressure induced by local firms on regulators to update standards to increase transparency and face competitive conditions with firms in the rest of the world (see Moel 2001).

Firms, individuals, and governments are gaining awareness of the possibility of exploiting the advantages of information sharing. At the same time, the world is moving toward the definition and adoption of precise standards of disclosure and accounting of information. Together, these two movements and their interaction will increase the access of individuals and firms to credit markets, and will decrease the information boundaries that, to some extent, have reduced capital mobility across borders.

HOW DO LATIN AMERICAN BANKS USE CREDIT INFORMATION?

The IDB-World Bank survey helps to explain how banks use credit registries. On average, 90 percent of the 177 banks surveyed report that they consult private credit registries frequently for their lending decisions;

FIGURE 13.1 Quality of Credit Registries as Rated by Bankers
(Index, 0, dissatisfied, to 1, very satisfied)



Note: The quality index measures the degree of satisfaction of banks with the accuracy, timeliness, completeness, and accessibility of information in credit registries.

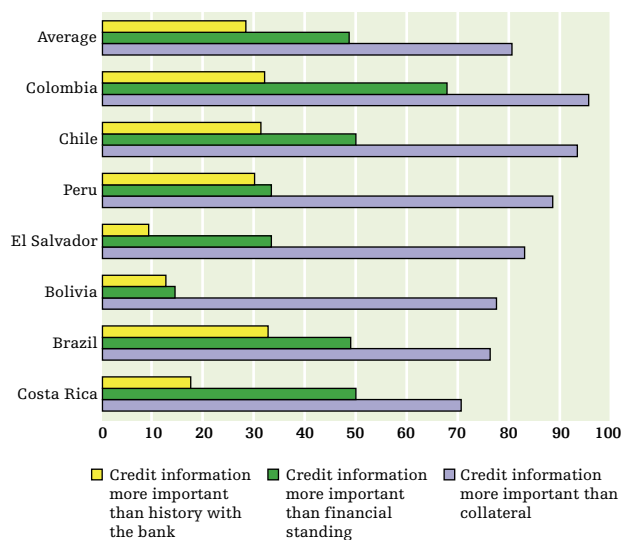
Source: IDB/World Bank survey of banking institutions on credit information.

75 percent report that they consult public credit registries. However, less than 20 percent report that they use the credit registry as their main source of information on borrowers. Except for Colombia, where 80 percent of surveyed banks report that credit registries are their primary source of information for consumer and business loans, in most countries banks prefer other sources of information.

Figure 13.2 reveals that in most countries banks rely on multiple sources of information—such as the financial standing of the debtor and his or her past history with the bank—instead of relying solely on information from credit registries when making loan decisions. This claim holds for public, foreign, and private domestic banks. Overall, most banks behave similarly regarding the importance assigned to credit registries. In all surveyed countries, data from credit registries are more relevant than collateral. This is a result of the low degree of creditor protection in the region. In every country except Colombia, 50 percent or less of the banks report that financial standing is more important than the credit registry report, and in all countries only 30 percent (at most) of banks report that information from credit registries is more important than the history of the client with the bank.

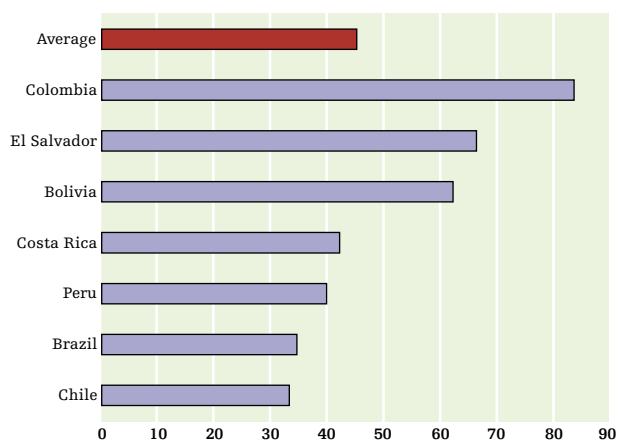
Despite not being the most important factor in lending decisions, information from credit registries is crucial for selecting the pool of potential borrowers.

FIGURE 13.2 Importance of Credit Information Relative to Other Criteria
(Percentage of banks)



Source: IDB/World Bank survey of banking institutions on credit information.

FIGURE 13.3 Banks Disqualifying Borrowers If Negative Information Is Reported
(Percentage of banks)



Source: IDB/World Bank survey of banking institutions on credit information.

Many banks disqualify clients on the basis of the information appearing in the credit reports. As shown in Figure 13.3, on average about 45 percent of surveyed banks claim that they disqualify potential borrowers if any negative information appears in the credit report. Once again, Colombia has the most banks (less than 84 percent) following this policy.

CONCLUSIONS

Credit registries are an institutional response to the problem of asymmetric information in credit markets, but they are not the only possible response. Collateral pledges and the threat of bankruptcy in extreme cases are other tools that lenders use both to screen applicants (address adverse selection) and to encourage repayment (reduce moral hazard). Perhaps the fact that Latin America and the Caribbean has advanced as far as it has in credit registries is not unrelated to the difficulties faced in many countries in the region with regard to seizing collateral (see Chapter 12). Developing a credit registry, either voluntarily in the private sector or under the auspices of the bank supervisor, may be easier than changing fundamental laws and judicial systems, and it may be politically more palatable. It is also worth remembering a basic tenet of psychology, that is, that the best predictor of future behavior is past behavior. Information contained in registries has proven to have greater predictive power than collateral pledges in determining who will repay loans and is therefore more prized by bankers than even collateral.

In order to exploit the benefits of credit registries, an adequate legal framework that encourages information sharing among lenders must be in place. In this regard, bank secrecy laws, which can restrict information flows, have to be reviewed. Imprecise privacy laws can impose limits on credit reporting and can hinder the usefulness of credit reporting agencies. However, rules that prevent the improper use of credit information must exist in order to guarantee that the information shared will not be used against the safety and security of the people recorded in the registry.

The regulatory framework supporting credit bureaus must also deal with unfair competition practices and avoid allowing use of the database for “cherry picking,” that is, enabling institutions to find and deal with the best clients of other institutions. If such practices were allowed, information sharing would be discouraged and the advantages discussed here would be nullified.

The ownership of credit registries is an important determinant of the quality of the dataset produced. Ownership by a limited group of lenders or bank associations can discourage a broader database by restricting not only informants, but also access to the system. Registries must not belong to a closed network because doing so would lead to a reduction in information sharing. The role of the government in the information sharing activity is under debate. Privately owned registries have the advantage of gathering information

from several sources, not just commercial banks. However, public registries can oblige banks to report data to the registry, but private ones cannot. This in any case is not necessarily an argument in favor of public registries. Once the value of information is acknowledged by the financial system, sharing can arise naturally and can be enforced by, for example, imposing reciprocity conditions on the use of data (only those that share can have access to the data). The business of providing and analyzing information (through credit-scoring models, for example) is profitable and attractive enough to have sufficient private agents managing it, once the value of information sharing has been socially recognized.

To strengthen the quality of the information in the database, the legal framework must provide mechanisms that promptly handle consumer complaints pertaining to information and address complaints outside the ju-

dicial system. Borrowers must be able to access their data, and there should be in place consumer-friendly procedures to challenge erroneous information quickly. However, instances of consumer access to the data should be noted in credit reports in order to avoid data manipulation on behalf of consumers.

Credit registries can succeed in their purpose of reducing information asymmetries only if the data shared are reliable and banks follow reasonable risk management practices. Despite the fact that incentives for adopting international accounting and auditing standards are in place, governments have moved slowly toward adopting them. In order to increase access to national and international financing, countries should adopt and enforce proper accounting and auditing principles.

APPENDIX 13.1. CREDIT REGISTRIES AND FINANCIAL DEVELOPMENT

Appendix Table 13.1 reports the results of estimations cited in the text. The first column reports ordinary least squares (OLS) regression results of the average development of credit markets, defined as the ratio of credit to the private sector to GDP, on standard macroeconomic indicators, the level of development of the economy, the protection of creditor rights as defined in Chapter 12, and a variable indicating the existence of credit registries. Note that these results, in particular the OLS results, should not be interpreted as causal, but rather as correlations, because the development of credit registries can be endogenous.

The results reported in Appendix Table 13.1 can

be interpreted as the average for the sample. The table reports results from quantile regression exercises, that is, regressions that focus on the relationship between variables at different locations of the distribution of the dependent variable. In short, this method explains how financial development is related to the determinants at different stages of financial development, that is, at different locations across the distribution of financial development. Quantile 50 is the median, quantiles below the median represent financially less developed countries, and those above the median are more developed countries. The variable of interest of this chapter is the credit registry dummy. Below the 50 percent quantile the dummy is significant and the coefficient is relatively high. For higher quantiles, the sign of the coefficient drops as well as its statistical significance.

APPENDIX TABLE 13.1 | **THE EFFECTS OF CREDIT REGISTRIES ON FINANCIAL DEVELOPMENT, 1999–2003**

Variable	OLS	Quantile				
		15	25	50	75	85
Log(1 + inflation rate)	-8.269 (4.224)*	-4.973 (4.018)	-5.773 (2.682)**	-5.694 (3.576)	-5.162 (3.864)	-7.279 (6.173)
Growth rate, 1990–2003	0.753 (0.937)	0.096 (0.726)	0.013 (0.787)	0.774 (0.697)	1.562 (1.742)	1.458 (2.193)
Log(GDP per capita)	6.773 (1.115)***	2.759 (1.565)*	3.852 (0.788)***	4.604 (1.284)***	7.779 (1.475)***	8.416 (1.946)***
Effective creditor rights	13.415 (2.511)***	8.707 (3.511)**	9.834 (1.607)***	12.920 (3.680)***	16.150 (4.655)***	18.337 (7.908)**
Credit registry	9.572 (4.657)**	9.436 (2.664)***	8.956 (1.360)***	10.160 (3.486)***	7.283 (4.824)	1.720 (7.989)
Constant	-158.007 (26.138)***	-66.501 (34.565)*	-91.006 (17.764)***	-108.826 (28.028)***	-178.719 (30.055)***	-186.470 (40.427)***
Number of countries	123	123	123	123	123	123
R ²	0.53					

* Significant at 10 percent.

** Significant at 5 percent.

*** Significant at 1 percent.

Note: The dependent variable is credit/GDP. Standard errors are in parentheses.

Source: IDB calculations.

