Creditor Protection and Financial Markets: Empirical Evidence and Implications for Latin America

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atin American countries have undergone significant financial sector reforms since the early 1990s. Despite significant advances in liberalizing financial markets and the overall positive impact of liberalization on the allocation of credit toward growing economic activities, financial markets remain shallow, suggesting that further reform is still needed.¹

One candidate for further reform is the protection of creditor rights. In their seminal research on creditor rights, La Porta et al. (1997, 1998) show that creditor protection in Latin American countries is extremely weak. In this paper we argue that the protection of creditor rights is an area in which Latin American countries should undertake major reform in order to exploit the advantages of deep and stable financial markets.

To illustrate the importance of creditor rights, a basic contract can be considered. The basic credit contract involves three players: the creditor, the debtor, and the institutions that guarantee that each of the other parties will live up to its responsibilities. If institutions are inadequate, it is likely that the benefits that the other parties have to gain from reneging on the debt contract can be so pronounced that they prevent the realization of the contract. Hence, the ability of these institutions to align the players' incentives with the clauses of the debt contract can become an engine for promoting financial depth. In fact, the rights of creditors to the assets pledged as collateral have a major role in explaining the depth of financial markets, the allocation of credit among different groups of investors, and the way the allocation and amount of credit react to economic shocks. Several recent papers, moreover, have shown the importance of these relationships. This paper surveys empirical evidence on the impact of creditor rights protections on credit markets, small and medium-sized enterprises' access to credit, and credit volatility and relates it to the Latin American experience.

In addition to the considerations above, the degree to which creditors are protected can have an impact on how other types of reforms affect financial markets. Galindo, Micco, and Ordoñez (2002), for example, show that the impact of financial liberalization on economic growth depends on the quality of underlying institutions. In particular, they show that financial liberalization has little impact in countries where creditor rights are unprotected. This paper does not address that issue, however, but rather concentrates on the direct effects of creditor protections on financial markets.

The paper first documents the state of creditor protection in Latin America and then discusses evidence on the impact of creditor protection on the size of financial markets, the impact on small and medium-sized debtors of enhancing creditor rights, and the impact of creditor rights regulations on the dynamics of financial markets.

Creditor Rights in Latin America

Recent papers by La Porta et al. (1997, 1998) have given new impetus to the empirical discussion on the importance of regulations regarding the rights of creditors to borrowers' assets by providing very valuable data on the state of creditor rights regulations around the world. The La Porta et al. (1998) study collects information on various regulations regarding creditor rights protections. Using this information, the authors construct an index that summarizes regulations determining creditors' rights to control collateral in case firms file for reorganization or bankruptcy. La Porta et al. consider whether (1) regulations impose an automatic stay on assets in case

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of reorganization, (2) secured creditors have the right to be paid first in case of bankruptcy, (3) regulations require firms to consult with creditors before filing for reorganization, and (4) regulations mandate removal of the firm's management during reorganization. A positive response to each of the four elements of the index is interpreted as creditor rights protection. It should be noted that this measure goes beyond collateral repossession exclusively since it focuses on total asset liquidation in case of bankruptcy.

Table 1 summarizes the La Porta et al. creditor rights measure for Latin American countries as well as for the average level in Organisation for Economic Co-operation and Development (OECD) member and Southeast Asian countries. While this measure illustrates the degree to which regulations protect creditors, it might be insufficient given that law enforcement can vary from country to country. If one takes into account that law enforcement is weak in Latin America, it is likely that creditors may not enjoy de facto protection. To incorporate such weakness in law enforcement into our measure of creditor protection, we create a new index labeled "effective creditor rights" that multiplies the La Porta et al. creditors' rights index by a "rule of law" measure. The last column of Table 1 reports the values of this index for Latin American and Caribbean countries, with higher values implying higher effective protection. Once rule of law is factored in, the conditions for Latin America look even worse because creditor rights in the region are not only weak but also barely enforced. On the basis of this methodology, it is only fair to say that creditor protection in Latin America is extremely weak.

Creditor Rights and Financial Breadth

Peveral research papers have linked creditor rights protection to financial depth.² The main argument behind this relationship is that the protection of creditor rights guarantees an environment in which creditors and debtors will wish to pursue financial contracts. Creditor rights protection stimulates both lenders and borrowers to enter into financial contracts and to abide by their clauses and thus constitutes an essential ingredient of financial development.

Consequently, advocates of creditor rights—oriented regulations claim that if the right to repossess collateral in case of debtor default is not strictly protected, the use of collateral will lose its important role in solving the information asymmetries that can lead to credit rationing and underinvestment.³

Theoretical findings regarding the role played by collateral in mitigating problems derived from asymmetric information are based on the presumption that collateral can be repossessed by the creditor in case of default. That is, it is presumed that a third party stands ready to protect and enforce the creditor's security interest on the collateral stipulated in the debt contract. The right to repossess collateral and efficiency in doing so act as a threat that can ensure that borrowers will not engage in inadequate behaviors, and this threat can serve to align the borrower's incentives with the clauses of the contract. If lenders feel that regulations do not protect them and that their chance of taking control over the assets pledged as collateral is uncertain, they are likely to prefer not to extend credit since the implicit bankruptcy risk will severely reduce their expected earnings. Under these circumstances, credit rationing will resurface. Therefore, countries with a higher degree of creditor protection can be expected to enjoy deeper debt markets since they can take advantage of the use of additional noninterest clauses such as collateral to mitigate problems derived from information asymmetries.

The creditor rights measure developed by La Porta et al. has been used in several studies to address a number of important questions. La Porta et al. examine the impact of creditor rights regulations on the size of credit markets and explore the determinants of creditor rights, reaching the conclusion that legal systems based on the French civil law tradition, as is

TABLE 1

Creditor Protection in Latin America

	Creditor rights	Rule of law	Effective creditor rights
Argentina	0.00	0.54	0.00
Bolivia	0.00	0.13	0.00
Brazil	0.25	0.63	0.16
Chile	0.50	0.70	0.35
Colombia	0.00	0.21	0.00
Costa Rica	0.50	0.67	0.33
Dominican Republic	0.25	0.31	0.08
Ecuador	0.25	0.67	0.17
El Salvador	0.25	0.24	0.06
Guatemala	0.00	0.14	0.00
Honduras	0.25	0.21	0.05
Jamaica	0.25	0.35	0.09
Mexico	0.00	0.54	0.00
Panama	0.50	0.21	0.11
Paraguay	0.25	0.41	0.10
Peru	0.25	0.25	0.06
Trinidad and Tobago	0.25	0.67	0.17
Uruguay	0.50	0.50	0.25
Venezuela	0.50	0.64	0.32
Average Latin America	0.25	0.42	0.12
Average OECD	0.49	0.93	0.45
Average Southeast Asia	0.88	0.65	0.56

the case for Latin American countries, tend to grant less protection to creditors and more to debtors than do systems based on the Anglo-Saxon legal tradition. Empirical evidence further suggests that creditor protection can have a significant impact on the development of financial markets.⁴ In summary, after controlling for relevant features such as inflation, past economic growth, the size of the economy, and fiscal

imbalances, most empirical studies find a strong cor-

Source: La Porta et al. (1997, 1998); Galindo and Micco (2001)

Notes: Creditor rights, rule of law, and effective creditor rights are normalized between 0 and 1.

relation between creditor protection and financial sector development.

In this section we report regressions similar to those in La Porta et al. and in Padilla and Requejo (2000) with a few variants. Following Galindo and Micco (2001), first, we introduce the variables that we call effective creditor rights 1 and effective creditor rights 2, which are the interaction of the rule of law variable and the creditor rights index and

- 1. See Galindo, Schiantarelli, and Weiss (2002) for a discussion of financial liberalization and credit allocation.
- 2. See, for example, La Porta et al. (1997, 1998), Padilla and Requejo (2000), and Galindo and Micco (2001). Galindo and Micco develop a model in which the asymmetry of responses of credit markets to shocks is linked to the institutional setup; the authors estimate the responses using a panel of over fifty countries, with information ranging from 1990 to 1999.
- 3. Among many uses described thoroughly in Coco (2000), collateral can solve problems derived from asymmetries in valuation of projects, uncertainty about the quality of projects and the riskiness of borrowers, and problems related to the cost of monitoring or supervising the borrowers' behavior. When not dealt with, these problems can lead to partial or complete credit rationing. Collateral requirements can solve or at least mitigate the impact of these problems on the extension of credit. Such requirements help to reduce asymmetric valuation problems, that is, the conflict that arises when borrowers and lenders disagree about the true value of the project; reduce credit rationing since pledging collateral can convey information about borrowers and about the projects to be financed; and alleviate moral hazard problems by adding a potential cost to borrowers if they do not make their best effort to succeed.
- 4. La Porta et al., Padilla and Requejo (2000), and Galindo and Micco (2001) show that creditor protection can affect the size of financial markets, the level of interest rates, and the level of nonperforming loans.

of the efficiency of the judiciary and the creditor rights indexes, respectively. These variables capture the effects of law enforcement and efficient judicial procedures on creditor regulation. Countries with high creditor rights can lose their benefits if rules and regulations are not enforced or if they are enforced inefficiently. The rest of the variables are similar to those in La Porta et al. In order to isolate any possible cyclical effect from the dependent variable, we take an average of private credit to GDP during the 1990s.⁵ Following La Porta et al., we include as controls the average growth rate since 1970 and the size of the economy proxied by the 1990s average of log(GNP); following Padilla and

Creditor rights protection stimulates both lenders and borrowers to enter into financial contracts and to abide by their clauses and thus constitutes an essential ingredient of financial development.

Requejo we include in our regression the average of inflation and the government's deficit.

Table 2 presents our cross-country results. Each column represents a different specification. As in previous empirical studies, the creditor rights index in itself appears significant at a marginal level. The effective creditor rights indexes appear highly significant, as do the rule of law, the efficiency of the judiciary, the risks of contract repudiation and of expropriation, and the property rights variables. To some extent all of these variables reflect creditor rights. Column (10) includes a variable constructed using the principal components of all of the above, and it also appears significant. Finally, the last column includes the legal origin of countries as regressors because previous studies have shown that legal origin is a good exogenous proxy for creditor protection. Column (11) shows the impact of different legal origins on credit markets. The main result is that countries whose legal systems are based on the French civil tradition have shallower financial markets than others. As in La Porta et al., the finding here is that common-law countries provide better protection to creditors.

The main result shown in Table 2 is evident. For a number of reasons, better legal protections enhance creditors' ability to operate in risky environments and increase the depth of credit markets. In summary, credit markets are deeper because protections increase the implicit value of collateral or, alternatively, reduce liquidation costs in case of borrower default. For example, lower protection reduces the possibility of seizing collateral at low cost and hence reduces the expected return to creditors in case of default. The implicit increase in credit risk shrinks credit markets.

Basic macro controls such as inflation and budget deficits are significant in most specifications with the expected negative and positive sign, respectively, suggesting that macroeconomic imbalances are harmful for financial market development. Average growth rates and the level of GNP are rarely significant.

In summary, this section has shown robust evidence that confirms results previously presented in the empirical literature. Countries with higher creditor protection, stricter law enforcement, and more efficient judicial systems tend to have deeper credit markets than those where legal protections are weak. Hence, there is a link through which legal protections can affect the real economy. It is nonetheless worth noting that, while these exercises provide some evidence on the importance of creditor protection for financial markets, they do not allow for conclusions on what the best form of regulation is.

Creditor Protection and Access to Credit

Informational asymmetries tend to increase financial restrictions for smaller creditors, who usually have fewer assets to pledge as collateral, and the empirical evidence suggesting that "size matters" for financial constraints is extensive. The main intuition behind this result is that smaller borrowers, as opposed to large firms, are not able to internalize many of the capital allocation functions carried out by financial markets. Hence, financial development may have a disproportionate impact on smaller firms.

In this section we review evidence of different degrees of creditor rights protection on access to credit for small and medium-sized enterprises (SMEs). Results are drawn from Chong, Galindo, and Micco (2004), who use the World Business Environment Survey (WBES) database (World Bank Group 2000) to explore the role of creditor protection on SMEs' access to credit. The WBES is a cross-country firm-level survey conducted in fifty-four developed

^{5.} The variable "credit to private sector" is extracted from the World Bank's World Development Indicators and refers to financial resources provided to the private sector, such as through loans, purchases of nonequity securities, and trade credits and other accounts receivable, that establish a claim for repayment.

Dependent variable CREDIT/GDP	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Log(GNP)	1.90 (1.19)	2.76 (1.66)	0.42 (0.30)	2.85 (1.78)*	2.78 (2.12)**	-0.80 (0.54)	-1.00 (0.66)	0.80 (0.49)	1.36 (0.76)	1.96 (1.55)	0.17 (0.09)
Growth GDP	-51.56 (1.11)	-75.50 (1.46)	6.53 - (0.15)	-61.32 (1.23)	-9.78 (0.24)	3.93 (0.10)	20.20 (0.53)	-2.40 (0.06)	-25.15 (0.54)	-53.90 (1.36)	25.23 (0.53)
Log(1 + inflation)	-51.58 · (1.71)*	-60.10 - (1.72)*	-49.99 - (2.23)*	-55.80 - (1.67)	-45.99 - (1.51)	-40.41 - (2.41)**	-30.78 - (1.96)*	-35.57 - (2.62)**	-65.19 (2.13)**	-41.44 (1.43)	-31.46 (1.92)*
Budget deficit	3.11 (2.20)**	4.28 (2.94)***	2.38 (1.82)*	4.18 (2.93)***	3.35 (2.60)**	2.30 (1.81)*	1.94 (1.58)	2.96 (1.82)*	3.29 (1.87)*	3.69 (2.94)**	2.14 * (1.27)
Effective creditor rights 1	14.11 (2.88)***										
Creditor rights		8.54 (1.69)*									
Rule of law			18.66 (3.95)***								
Effective creditor rights 2				9.83 (1.72)*							
Efficiency of the judiciary					14.14 (1.89)*						
Risk of expropriation						22.93 (5.20)***					
Risk of contract repudiation							25.56 (6.02)***				
Property rights								20.66 (4.81)***			
Lawsuits									6.97 (1.05)		
Civil origin										-31.73 (2.89)**	*
Scandinavian origin										-20.03 (1.07)	
German origin										28.42 (1.58)	
Principal componen	ts										10.47 (4.03)*
Constant	46.92 (1.23)	35.75 (0.91)	64.43 (1.86)*	30.42 (0.76)	10.85 (0.27)	97.19 (2.69)***	95.26 (2.52)**	61.55 (1.50)	59.08 (1.30)	61.57 (1.96)*	71.43 (1.45)
Observations	52	52	53	48	49	53	53	47	47	53	41
R-squared	0.37	0.30	0.41	0.34	0.38	0.47	0.51	0.48	0.33	0.48	0.46

and developing countries in 1999. The survey includes information on firm characteristics as well as on entrepreneurs' perceptions of several issues, including access to financial markets.⁶

In particular, Chong, Galindo, and Micco test whether the share of firms' investment financed with bank credit depends on legal protections and whether the share of bank credit is affected by the size of firms. The survey classifies firms into three groups. Firms with fewer than 50 employees are labeled small, those with more than 50 but fewer than 500 are medium-sized, and firms with more than 5,000 are large. Chong, Galindo, and Micco test whether the interaction of different creditor protection measures

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with the size of the firm influences the degree to which investment is financed with bank credit.

The results are summarized in Figure 1, which shows the estimated difference in bank credit finance between small and medium-sized firms with respect to large firms in countries with different levels of effective creditor protection.⁷ The lighter-colored columns show the difference in the share of financing coming from banks between small and large firms for different values of the creditor protection proxies, and the darker columns show the difference in bank financing between medium and large firms. In countries where the creditor protection measures are at the minimum values of the index, small firms have much less access to credit than large ones do. The index falls as the creditor protection measure rises. Chong, Galindo, and Micco's results show that in a country in the 20th percentile of effective creditor protection, the difference in bank credit financing between small and large firms is nearly 30 percentage points, and the difference between medium-sized and large firms is close to 11 percentage points. As effective creditor rights increase, the gap is closed. In fact, according to their estimates, the difference in bank credit between small and large firms in countries with high creditor protection (75th percentile) is only 14 percentage points, and the difference between medium and large is only 6 percentage points.

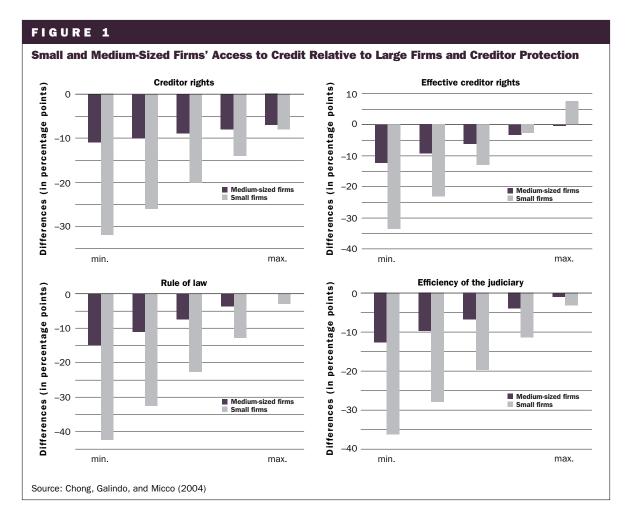
In general, the results of the study indicate that, in comparison to large firms, medium-sized and small firms finance significantly less of their investment with bank credit. In fact, the share of bank credit in smaller firms is on average lower than that of medium-sized firms. However, the degree to which smaller firms are constrained depends on the quality of the regulatory framework, suggesting that in countries where creditor rights are protected (and enforced) smaller firms can access more bank credit to finance their investment.

The overall evidence of this section suggests that creditor protection tends to significantly reduce the financing constraints of smaller and medium-sized creditors. The ability to pledge collateral can be substantially more important for firms lacking internal capital markets or other forms of access to formal financial markets. Consequently, a reform aimed at increasing creditor protections can not only increase the size of financial markets and promote economic growth but can also have a significant impact on credit allocation and income distribution.

Creditor Rights and Financial Volatility

In addition to promoting the depth of credit markets in general and reducing constraints on smaller and medium-sized debtors in particular, credit protection can also reduce the impact of adverse shocks over the credit cycle. If creditor rights are protected, when the economy faces an adverse shock that increases credit risk, the extent to which credit contracts will depend on the regulations regarding collateral repossession. If creditors cannot recover the collateral pledged in case borrowers default, it is likely that the overall increase in credit risk experienced during a recession will be exacerbated by the fact that creditors will not even be able to recover the collateral. In such cases, the credit market overreacts to the exogenous shock and credit strongly contracts.

To test the validity of this proposition, Galindo and Micco (2001) construct a panel of information for the 1990–99 period for a sample of developed and developing countries. The panel is unbalanced because of a lack of information on several years for some countries, and it is confined to the 1990s to avoid the impact of possible changes in regulation that cannot be captured because the legal data are collected on only one moment in time. Galindo and Micco find that countries with lower effective creditor rights seem to have lower credit volatility after controlling for GDP volatility. Figure 2 suggests that the volatility of real credit is amplified by low creditor rights. The figure shows how the standard deviation of the growth of real credit is negatively and significantly



related to the effective protection of creditors when controlling for the volatility of shocks that hit each country.⁸ In terms of this sample, an improvement in effective creditor rights from the 20th percentile to the 80th percentile reduces credit volatility by almost 50 percent (from 9.2 percent to 4.8 percent).⁹

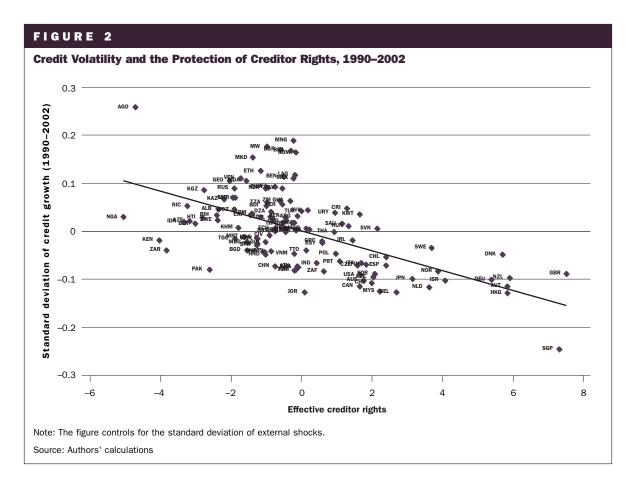
Galindo and Micco analyze the relationship between credit fluctuations and shocks in a formal econometric study and find that an increase in almost any of the legal protection proxies discussed above reduces the amplitude of the real credit cycle. In particular, it is interesting to note the role of effective creditor rights and specifically of creditor rights in reducing the amplitude of the cycle even when controlling for rule of law separately. The authors find that countries with legal systems of French origin tend to experience higher volatility than common-law countries. These results imply that credit is more stable in countries with strong creditor legal protection. When credit markets are hit by negative shocks, creditors in countries with weak legal protection experience high losses since they are not even able to seize the collateral pledge. Such a loss translates into a strong contraction of credit. On the other hand, in the face of positive shocks, credit increases more in these countries than elsewhere because there is an opportunity to compensate for losses during downturns. In countries with strong legal protection, however, credit is more stable since creditors face lower liquidation

^{6.} Previous uses of this database to test credit restrictions on small and medium-sized firms include Clarke et al. (forthcoming), who analyze whether foreign banks affect credit to smaller firms, and Love and Mylenko (2003), who analyze whether credit information registries affect financing constraints to these types of firms. This study follows an approach similar to those of both previous studies.

^{7.} The results plotted come from Tobit-type estimations, which take into account that our dependent variable is restricted to be between 0 and 1. Given that the dependent variable in these regressions is naturally truncated between 0 and 1 (the share of investment financed with bank credit), the empirical model is estimated using a standard two-limit Tobit model.

^{8.} In the most formal analysis we deal with the potential inverse causality in this relation.

^{9.} These results are derived from the formal econometric analysis of Galindo and Micco (2001).



costs and hence experience lower losses than in countries where protections are not in place.

The main intuition driving these results is that weak creditor protection can exacerbate the increase in credit risk that occurs naturally in recessions. When economies are hit by adverse shocks and creditors are not protected, lenders will disproportionately reduce their lending given that when facing an adverse economywide shock, such as a reduction in the terms of trade or a reversal of international capital flows, their chances of recovering either their loans or the collateral that guarantees them are slim.

Conclusions

It is common knowledge that many Latin American countries have gone through intense reform processes during the past fifteen years, and many of these reforms have been aimed at increasing the size and stability of credit markets. The region's financial markets nonetheless remain comparatively small and volatile, particularly with respect to other emerging market economies.

Empirical research suggests that the protection of creditor rights is an area in which much reform must still be undertaken. In general, the protection of creditor rights is weak in Latin America as result of both insufficient regulations and ineffectiveness in enforcing those regulations. This paper surveys existing evidence and provides new evidence on the role of creditor protections in increasing the size, the scope of access, and the stability of credit markets. The evidence presented suggests that stricter creditor rights protections can contribute to increasing the size of credit markets, reducing their instability, and increasing access, especially for small and medium-sized enterprises that naturally tend to experience tighter financial constraints.

In addition to the areas of direct influence explored in this paper, it is worthwhile to recognize additional research pointing out how other types of reforms require creditor rights protections to maximize their effectiveness. Recent research has pointed out that financial liberalization, in particular that of domestic financial markets (including liberalizing interest rate caps, eliminating directed credit, and the like), has a positive impact only in countries with strong creditor rights protection and enforcement. Creditor rights protections allow lenders to take advantage of liberalization by granting them the instruments to deal properly with credit risk.

The importance of rules and regulations that govern credit contracts has been stressed time and

again. Nonetheless, the reforms undertaken so far have been insufficient. Several reasons explain the inadequacy of reform in this area. First, there is not one specific area to reform in order to achieve an adequate framework for protecting creditors. Not only do rules and regulations in different codes regarding seizing collateral need to be reformed, with all the complexity that these changes usually involve in civil law countries, but also, and probably more importantly, the judicial system needs to be made more agile. With these goals in mind, several analysts have formulated principles concerning an adequate framework for secured transactions, and the European Bank for Reconstruction and Development has drafted some basic principles to define a well-functioning regulatory framework for secured transactions. Such principles clearly note the need to establish out-of-court remedies that assure prompt, effective, and relatively less expensive enforcement of creditor rights. However, the civil law tradition also limits this alternative, making it difficult (but not impossible) for lawmakers to achieve a satisfactory reform. Despite these difficulties, Eastern European countries such as Romania and Estonia have been able to implement many of these principles.

In addition to the problems noted above, the political economy problem faced by policymakers when deciding whether to execute these types of reform is far from trivial. Despite the fact that there is a certain degree of awareness on the importance of this topic, there is also a great degree of misunderstanding. In general the public might view these sorts of policies as a way to redistribute wealth in favor of the already-demonized financial sector, which can lead to a loss of popularity of such reforms. It is difficult to convince the general public that stricter creditor protection is equivalent to greater depositor protection given that most of the funds lent by banks are obtained through deposits. This issue, however, is a matter for future research.

REFERENCES

Chong, Alberto, Arturo Galindo, and Alejandro Micco. 2004. Creditor protection and SME finance. Inter-American Development Bank, manuscript.

Clarke, George, Robert Cull, Maria Soledad Martinez Peria, and Susana M. Sánchez. Forthcoming. Bank lending to small businesses in Latin America: Does bank origin matter? *Journal of Money, Credit, and Banking*.

Coco, Giuseppe. 2000. On the use of collateral. *Journal of Economic Surveys* 14, no. 2:191–214.

Galindo, Arturo, and Alejandro Micco. 2001. Creditor protection and financial cycles. Inter-American Development Bank Research Department Working Paper No. 443, April.

Galindo, Arturo, Alejandro Micco, and Guillermo Ordoñez. 2002. Financial liberalization and growth: Empirical evidence. Paper presented at "Financial globalization: A blessing or a curse?" a joint conference of the World Bank and George Washington University, Washington, D.C., May 30–31.

Galindo, Arturo, Fabio Schiantarelli, and Andrew Weiss. 2002. Does financial liberalization improve the allocation of investment? Micro evidence from developing countries. Boston College Working Papers in Economics No. 503.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert W. Vishny. 1997. Legal determinants of external finance. *Journal of Finance* 52, no. 3:1131–50.

——. 1998. Law and finance. *Journal of Political Economy* 106, no. 6:1113–55.

Love, Inessa, and Nataliya Mylenko. 2003. Credit reporting and financing constraints. World Bank Policy Research Working Paper No. 3142, October.

Padilla, Atilano Jorge, and Alejandro Requejo. 2000. The costs and benefits of the strict protection of creditor rights: Theory and evidence. Inter-American Development Bank Research Network Working Paper No. R-384, May.

World Bank Group. 2000. The world business environment survey. http://info.worldbank.org/governance/wbes/ (June 11, 2004).