Corporate Governance and Restructuring— Lessons from Transition and Crises

Ownership Structure, Legal Protections, and Corporate Governance

I. J. Alexander Dyck

This survey presents a functional framework for understanding corporate governance issues and examines the theoretical and empirical evidence on the effect of legal protections (legal rules protecting investor rights) and the ownership structure of firms on governance. Legal protections can improve governance by shifting power to investors and lowering the cost of resolving disputes. The effectiveness of legal protections, though, depends on complementary institutions that provide enforcement and ensure the provision of information for investors. Where such complementary institutions are inadequate, such alternative approaches as ownership structure may provide a lower cost approach to provide the functions of governance. Evidence for established and privatized firms suggests that there are links among legal protections, ownership structures, and firms' financial performance. The article draws implications about policies on ownership structure in privatized and established firms and identifies issues to be considered in reforming governance systems.

There are costs to using the market to organize transactions; entrepreneurs create firms to alleviate these costs. In so doing, the authority of the entrepreneur substitutes for the price mechanism in the allocation of resources. This paper focuses on corporate governance institutions that influence the allocation and exercise of entrenpreneurial authority.

In this article I don't approach governance from an institutional or neoclassical economic perspective. An institutional approach to governance takes existing institutions, such as the bank-centered corporate governance systems of Germany and

I. J. Alexander Dyck is associate professor at the Harvard Business School. Parts of this article draw on Dyck (2001). For helpful discussions, the author thanks Erik Berglöf, Harry Broadman, David Ellerman, Avner Greif, Roumeen Islam, Carl Kester, Rafael La Porta, Jay Lorsch, Thomas McCraw, David Moss, John Nellis, Katharina Pistor, Julio Rotemberg, Bruce Scott, Mary Shirley, Joseph E. Stiglitz, Philip Wellons, participants in the Global Corporate Governance Initiative of the Harvard Business School, and seminar participants at the Harvard Business School and the World Bank. The author also gratefully acknowledges the support of the World Bank and the Harvard Business School's Division of Research.

Annual World Bank Conference on Development Economics 2000

Japan, as given and asks how these institutions could produce the services they offer more effectively. A neoclassical economic approach avoids discussing institutions and concentrates almost exclusively on assumed functions, exploring the limitations imposed by fundamental variables such as technology, endowments, and preferences.[1] In the relatively rare circumstances in which institutions are introduced, they are viewed solely as imposing constraints on sophisticated investors.

The approach I use here takes the functions of a governance system as given and asks how different institutional arrangements can address these functions.[2] The approach thus shares the economic focus on functions, but it does not assume that institutional differences either do not affect outcomes or serve solely as constraints. Instead, it admits the possibility that institutions can complement markets by lowering the costs of providing core functions. This functional approach does not presume that there is only one institutional way to address governance concerns. It forces an examination of the range of institutions and policies involved in governance—a range much greater than that suggested by the institutional perspective. The approach is well suited to examining the possibilities for reform.

A Framework for Understanding Corporate Governance

The transaction at the heart of corporate governance is an investment in a corporation that is simultaneously met not with payment but with a promise of future returns. Correspondingly, I define a corporate governance system as the complex set of socially defined constraints that affect expectations for how authority in firms will be exercised—and thus how the system affects the willingness to make investments in corporations in exchange for promises.[3] These constraints include those taken as exogenous by investors in firms when they make their investments (what I call institutions of governance, such as the legal system) and those introduced by investors (what I call policies, such as the compensation system for managers).

This view of governance encompasses many investments in exchange for promises based on explicit contracts and implicit contracts. Investments of equity and debt capital are obviously corporate governance transactions—payment is by definition delayed. Workers and management also make investments with delayed payment. When workers are asked to invest in skills of use only to a particular firm (rather than in general skill formation) and payment for that investment is deferred, they are engaged in corporate governance transactions. Managers also make investments in exchange for promises, as they often invest in specific skills and knowledge and put their reputations at risk with only limited security that they can retain their positions and have the discretion to take actions that reveal their ability.[4]

I use the term *promise* to emphasize both the separation between the quid and the quo[5] in governance transactions and the fact that such exchanges are often based on implicit understandings in addition to explicit contracts. With any investment transaction there are natural limits to the ability to completely specify actions under all future contingencies. In addition, the terms of the initial contract may themselves be violated. When making an investment, the investor therefore calculates expected returns on the basis of not only specific terms in a contract but also implicit understandings and the expected outcome from inevitable competing claims on the wealth generated by the firm.

Functions Provided by a Corporate Governance System

Identifying the primary function of corporate governance as facilitating investment helps clarify thinking; it is less useful when we attempt to link institutions to the provision of functions. More helpful is the identification of core functions that contribute to this primary objective. Merton and Bodie (1995) identify the core functions performed by the financial system, a system that shares many features of a corporate governance system: clearing and settling payments, pooling resources and subdividing shares, transferring resources across time and space, managing risk, providing information, and dealing with incentive problems. With the exception of clearing and settling payments, these functions are also core functions of corporate governance systems.

Since many investments are beyond the capacity of individual investors, corporate governance institutions provide a way to pool resources. Investments are also more likely when risks associated with those investments are pooled, shared, and allocated to those with greater risk-bearing capacity. Corporate governance institutions allocate risks. Providing information and managing incentive problems are correctly placed at the heart of analyses of governance systems, because asymmetries in information discourage investments by increasing the probability of adverse selection and moral hazard. Corporate governance institutions determine the extent and timeliness of information disclosure as well as the incentives to engage in monitoring.

But perhaps the defining function of corporate governance institutions relates to the authority held by the entrepreneur. Corporate governance systems determine how competing claims on the wealth generated by the corporation are to be resolved. The entrepreneur in the firm is not the only agent with authority. In both the approach of Williamson (1985) and the more formal approach summarized by Hart (1995), the incomplete contract literature has focused attention on how ownership of physical assets brings authority. When the contract is silent, the owner of the assets has the residual right to specify how these assets are distributed. Also, the government has authority to allocate power to the entrepreneur or to such stakeholders as labor in disputes over allocation of wealth, such as bankruptcy proceedings. In short, the costs of resolving competing claims on the wealth generated by the corporation depend on the identity of those who have power in the firm and in society more generally.

Good Governance Defined

In all economies in which investments are exchanged for promises, mechanisms are in place to provide these core functions. A "good" governance system is distinguished from a weak governance system by its capacity to provide these functions at a lower cost. A good governance system supports a continual process of mobilizing scarce resources, including investments by financiers, trade credit by suppliers, and specific human capital by labor and management, and allocating them to their most promising uses. Thus at the most aggregate level, the measure of the strength of a governance system is the extent and efficiency of investments in corporations.

An alternative measure of the strength of a governance system is the efficiency with which the core functions are handled. A good governance system allocates risk to those with a comparative advantage in bearing risk. It reduces information asymmetries between insiders and outsiders and among outside providers of resources. Indicators of effectiveness include the availability of information, adherence to accounting standards, and the precision of estimates of returns. A good governance system addresses inevitable incentive problems. Insiders are rewarded for performance that realizes outsiders' objectives. More critically, insiders are removed rapidly when evidence emerges of weak management or inappropriate practices. A good governance system minimizes the ability to divert returns and the costs of resolving inevitable disputes over the wealth generated by the corporation. Measures of the ability to divert returns include the extent to which a controlling shareholder is willing to pay a premium for control that cannot be accounted for by the shareholders rights to firm cash flow. Measures of costs of dispute include the incidence of disputes and the speed and reliability of dispute resolution.

Institutions of Corporate Governance Systems

Both governance institutions and governance policies (discussed below) affect beliefs about whether promises will be fulfilled and influence expected future returns—and in so doing influence investment choices. Institutions are determined at the societal level and are taken as exogenous by investors in making their decisions.[6] Policies are under the control of at least some investors.

NATIONAL LEGAL PROTECTIONS. A claim associated most closely with the pioneering work of La Porta and others (1998) is that national legal protections have a profound influence on the willingness to invest resources in firms and are a central institution of corporate governance. This approach has emerged both from the theoretical work that emphasizes the limits to contracting and from the observation that no country relies solely on the simple legal solutions offered by contracting. Everywhere governments introduce additional legal mechanisms that specify procedures and remedies for the most common breakdowns in governance.

A key assumption of this approach is that the default contract provided by national law can improve outcomes by affecting the bargaining over competing claims on the wealth generated by the corporation—and consequently the willingness to invest in firms. Echoing a theme found in the new institutional economics, the institution of legal rules is a constraint that can complement markets rather than limiting market transactions.

What legal rules are important for lowering the costs of resolving competing claims? First, the research of La Porta and others (1998) focuses on the elements of corporate law that favor minority shareholders, rather than management or a dominant shareholder, in corporate decisionmaking. The vast majority of these mechanisms provide for little interference with management during normal times but significant interference with low transactions costs when a situation deteriorates. Specifically, La Porta and others focus on six anti-director rights to indicate who holds power in firms: the right to vote by proxy through the mail, a ban on blocking sales of shares before meetings, the use of cumulative voting, the existence of oppressed minority rights, the existence of a preemptive right to new issues for existing shareholders, and a low threshold for calling an extraordinary meeting. They also collect information on the presence or absence of two additional provisions in the company code: a mandatory dividend and one-share-one-vote rules that link cash flow rights to voting rights, both of which could protect the interests of minority shareholders.

A shared feature of these legal protections is their clear allocation of power. Legal protections temporarily concentrate control and provide a credible threat to replace insiders, be they managers or controlling shareholders. In addition to shareholder meetings, extraordinary actions hinge on such protections as class action lawsuits and takeovers. In a class action lawsuit a group of equity investors seeks to sidestep the board and directly stop current management actions or actions approved by the board. In a takeover current controlling investors are replaced with a new controlling investor who can address problems in the current ownership structure and take more forceful action in dealing with management. Takeovers help overcome the public good problem associated with monitoring management that arises when there are a large number of small shareholders. But these efforts to temporarily increase ownership concentration can be very expensive and are therefore best viewed as extraordinary measures.

Second, La Porta and others focus on the interests of providers of debt finance, which is far more important than equity finance in most developing economies. They concentrate on rules that clearly allocate power in the case of competing claims on the wealth created by the firm. Bankruptcy laws specify criteria for determining when promises have not been kept and identify procedures for reallocating control over the use of assets and the distribution of assets (normally giving control temporarily to a judge, who often transfers it to a trustee controlled by creditors). When these protections are strong, the costs of invoking them are low and the bargaining process to realize a new distribution is speedy and predictable.

Third, La Porta and others examine how the legal origin of a country affects who has power in the case of competing claims. Building on the classification provided by comparative law scholars, they focus on two legal traditions, common and civil law. In the common law tradition of the United States, the United Kingdom, and the Commonwealth countries, the law evolves as judges resolve specific disputes. In contrast, civil law relies on written statutes often based on abstract principles, with roots in Roman law. In civil law countries the formal nature of the law increases its predictability, but it also allows for more abuses of investors, as courts have demonstrated less willingness to involve themselves in disputes between insiders and outsiders when the transaction being evaluated might have a plausible business purpose.

Courts' lack of involvement in such disputes in civil law regimes stems from the interpretation of insiders' "duty of loyalty" to outside investors. As Johnson and others (2000) suggest, in common law countries the duty of loyalty clause has been seen as a residual concept that judges have used expansively, effectively leading to a lower standard of proof for inviting the courts to examine behavior that benefits insiders at the expense of outside investors. In countries with a civil law tradition, such as Belgium, France, Italy, and Japan, the same duty of loyalty clause has been interpreted narrowly and the courts have not gotten involved. Consequently, investors effectively have greater power in common law regimes.

BEYOND LEGAL RULES: COMPLEMENTARY INSTITUTIONS. The work of La Porta and others has stimulated interest in how institutional factors can affect investment behavior. The work clarifies the importance for governance of resolving competing claims on the wealth of the corporation and the effect of default rules and legal origin on the costs of resolving disputes. The research also has clear policy implications for how to direct reforms by showing that clarifying power and allocating power to providers of finance can foster investments.

Three types of criticism have been voiced against this new focus on legal rules. First, legal rules focus primarily on one function of governance systems—reducing the costs of resolving competing claims over the wealth of the firm. This is an important function but not the sole function of a governance system. Even with low costs in resolving disputes, there remain agency problems within firms as a result of inevitable information gaps between users and providers of information. Additional functions of governance systems are to reduce information gaps and manage the inevitable incentive problems stemming from these gaps that cannot be addressed through corporate laws. Addressing these functions of governance requires different institutions, including institutions that enhance penalties provided by product and labor markets.

The second and third criticisms suggest that legal rules do not necessarily lower the costs of resolving disputes. A view prominent in the law and economics literature is that the only legal protections required are contracts and a judicial apparatus to enforce contract law. National legal protections are neither required nor likely to be important. They are not required because sophisticated investors can negotiate complex contracts with sophisticated insiders in the firm to anticipate eventualities and build in contractual safeguards. And they may not be important because sophisticated investors can contract out of or expand on these protections. This criticism, while logically consistent, is not supported by the data I describe below. Legal rules do matter for the effectiveness of governance.

The third criticism, which I pursue here, does not take issue with the contention that rules matter but suggests that the impact of legal protections on corporate governance depends critically on other institutions in an economy. A simple reading of the message of La Porta and others can lead to misunderstanding. It is a mistake to interpret this work as calling solely for the adoption of specific laws. It is a further mistake to focus solely on the small number of provisions in company law that La

Porta and others suggest clearly allocate power to insiders or financiers. A constant, but often ignored, element of the authors' message is the importance of effective legal protections—both the rules and their enforcement.

A change in legal protections will not affect investor beliefs if the actors tasked with resolving competing claims and enforcing judgments do not have the incentive to do so. Nor will it shift power to investors if it is not accompanied by incentives to provide them with information so that they avail themselves of those protections.

There is ample evidence that legal protections alone are insufficient to improve governance. Russia's experience is extreme but not unique. Black, Kraakman, and Tarassova (1999) suggest that with the perfection of legal protections in the Russian Federation (many of which they helped draft), effective protections for investors declined:

> [T]he principal problem is not that the laws aren't strong enough, but that they aren't enforced . . . unhappy shareholders can rarely develop enough facts to prove the rampant self-dealing that occurs every day. The courts respect only documentary evidence, which is rarely available, given limited discovery and managers' skill in covering their tracks . . . . [P]ursuing a case . . . will take years, and when you're done, enforcing a judgment is problematic, because enforcement is by the same biased or corrupt lower court that the shareholder began at. (p. 1754)

What must complement legal rules to produce effective legal protections? Theory alone cannot provide the answer. But the history of institutions in developed markets provides a guide. Studies of that history suggest that the effectiveness of legal protections rests substantially on three sets of additional institutions that create incentives for enforcement and information provision: the organization of political authority to limit arbitrary actions of the sovereign, the presence of intermediaries that reduce the public good problem associated with monitoring insiders, and the provision of incentives for these intermediaries through appropriately designed regulation or product market competition.

JUDICIAL EFFICIENCY AND THE INCENTIVES OF THE SOVEREIGN. For legal protections to influence investment behavior, there must be expectations that those laws will be obeyed. Judges must be sufficiently skilled to identify the laws that apply and to interpret the evidence in light of those laws. And judicial actors must have an interest in enforcing the law. While the range of factors that create conditions for effective enforcement remains an open question, in the Western economies effective enforcement has been linked to political structures that limit the power of the sovereign relative to other interest groups in society.

This idea is often linked to the influential work of Douglass North, particularly North and Weingast's (1989) work on the role of structural reforms in the development of external finance in the United Kingdom. Rajan and Zingales (2000) present similar arguments, emphasizing how legal protections can be changed by a determined government, using evidence from 19th- and 20th-century Europe to bolster their arguments.

North and Weingast (1989) focus on a critical period of development for the United Kingdom at the end of the 17th century. Common law courts had been in existence for a long time, but their relevance waned in the 17th century under the Stuart monarchy, with the increasing role of prerogative courts, the centralization of power in the Star Chamber, and the use of the executive power of pay and appointment of judges to influence their decisions. To resurrect the role of common law, complex organizational reforms were undertaken—among other things, abolishing prerogative courts, introducing new legislation mandating lifetime judicial appointments (with removal from office possible only in the case of criminal behavior or the assent of both houses of Parliament), and imposing constraints on the sovereign (including the Bill of Rights). These changes were supported by both inducements for the sovereign (a fiscal revolution that provided a steadier stream of revenues) and credible threats against the sovereign (the successful replacement of two sovereigns over the previous 50 years). In short, what made the common law courts predictable venues for resolving commercial disputes was the creation and development of a complex set of self-supporting political institutions.

INSTITUTIONS THAT PROVIDE INFORMATION AND INCENTIVES FOR EFFICIENT INFORMATION PROVISION. The costs of providing the functions of governance depend in part on the ability of resource providers to bridge the information gaps between themselves and the insiders in firms. Financiers must have information if they are to avail themselves of the power granted them by legal protections. Such information also has independent value: the reduction of information asymmetries is one of the core functions of a governance system.

Some information is, of course, collected independently by investors and provided by the users of the resources. But on both the demand and the supply side the extent of information collection is limited without other intermediaries. On the demand side is the well-known public good problem associated with monitoring insiders. To the extent that there are costs in collecting and evaluating information, small investors are better off if they can rely on other investors to provide information. On the supply side the user of resources often faces a conflict of interest in revealing information about the use of those resources. The ability to rely on reputation mechanisms to enforce information provision is constrained by the fact that users of resources may ask for investments only intermittently and penalty mechanisms may be weak.

Intermediaries that certify the quality of information produced, analyze the information for evidence of diversion of resources from promised uses, and provide summary statistics to investors can play a critical role in governance. They can help alleviate the public good problem associated with monitoring management and lower the transactions costs of collecting information to improve overall information flows. No longer is information about reliability possessed only by those with direct experience; specialized agencies now collect the information and make it available to clients.

Intertwined with the rise of trade credit for American retailers in the 19th century was the development of financial reporting, external auditors, and credit rating agencies (Olegario 1999). Organizations that provided information on assets and those with liens on the assets, such as property registries, helped facilitate credit and the use of collateral. The rapid expansion of railways and the demands for external finance through bond offerings increased demands for public accounting and encouraged the development of bond rating companies. Stock markets introduced listing requirements and brokerage houses, and the analysts that brokerage houses employed provided analyses of firms' current and future prospects.

Information provision depends on more than the existence of intermediaries, however. The expected efficiency of information intermediaries, which is what matters for investor confidence, depends on their access to information, their ability to process the information, and their incentives. A potential source of incentives is the prospect of competition among intermediaries or in labor markets. In Western economies there is evidence that the career prospects of securities analysts in brokerage houses are influenced by the accuracy of their earnings forecasts and their ranking by the institutional investors that use their reports (Hong, Kubik, and Solomon 2000). Brokerage houses whose analysts fail to provide accurate analyses lose market share.

Regulation of financial intermediaries appears to have been critical in most developed capital markets and in some nascent markets. To provide information and lower the costs of enforcement it may be optimal not to keep judicial authority in the general court system but to delegate authority to a specific regulatory agency—or even to allow that regulator to delegate its authority to private sector organizations. This is not an argument that delegation is always superior—giving authority to a specialized institution might lead to abuse—but that the location of authority can affect efficiency.

An analogy to agency problems within firms is appropriate. Firms do not completely centralize or decentralize decisionmaking. Instead, they identify who has the relevant information and combine provision of incentives with delegation of authority to those with information. The same logic applies one level up. A system of legal protections will be ineffective if it merely demands information or sanctions. A more effective system identifies those with potential access to information, delegates authority, and harnesses the incentives of the decisionmakers to whom authority is delegated.

Many examples illustrate the importance of the design of oversight institutions in ensuring that legal protections fulfill their desired functions—providing information and incentives for promise fulfillment and lowering the costs of resolving competing claims on the wealth of the firm. One of the best examples is the formation of the U.S. Securities and Exchange Commission (SEC) and its impact on markets for external finance, a system that facilitates more equity investment in corporations than any other such system in the world.[7]

The importance of high-quality information for investors had long been appreciated, but the stock market crash of 1929 revealed the inadequacy of previous attempts to address information asymmetries through simple disclosure rules. The faith of investors was restored by the reform of securities market regulation through the passage of the Securities Act of 1933, the Securities Exchange Act of 1934 (which created the SEC), and years of work by SEC officials to get the details right.

To reduce information asymmetries and increase incentives for disclosure and enforcement, the SEC imposed some penalties on firms issuing securities. Particularly important were penalties that had an effect immediately, even if subject to later judicial review.[8] Just as important was the SEC's focus on critical third-party agencies, as McCraw (1982) emphasizes. By regulating those intermediaries and granting them significant powers, including the power to police themselves, the SEC used its informational advantages and lowered transactions costs for investors in resolving conflicts.

More recent evidence of the importance of legal protections and their enforcement through specific regulatory authorities has been offered by analysts comparing the Czech and Polish experiences in the transition toward a market economy (see, for example, Johnson and Shleifer 1999). The Czech Republic and Poland started their reforms with roughly similar (low) levels of investor protections, but they had dramatically different experiences with corporate governance. The Czechs suffered widespread looting of firms by managers and insiders and rapid loss of faith in the stock market, with delisting of firms and no new private companies. In Poland much less investor dissatisfaction has been reported, and many more new firms have been able to raise external capital. Poland's relative success has been attributed in part to its far more stringent regulation of securities, including the ability of the securities regulator to control financial intermediaries through licensing, the regulator's much greater requirements for disclosure by issuers of securities, and the ex ante restrictions that limit conflicts of interest for intermediaries. In contrast, there was little initial regulation in the Czech Republic, and few changes in the approach despite deteriorating economic performance.

The importance of appropriate regulation of financial intermediaries, whether through a government agency or a self-regulating organization, applies with equal force to credit markets. Central banks and bank regulators are particularly important, as they collect information on banks as intermediaries and can coordinate responses through their influence over banks. Their powers include the ability to withdraw licenses, impose capital adequacy requirements, restrict loans to classes of debtors, and even trigger bankruptcy proceedings for firms or banks.

Fulfilling the function of providing information requires the creation of appropriate incentives for intermediaries. Evidence from developed and nascent capital markets suggests the importance of a specialized agency and the value of allowing that agency to delegate authority to self-regulating organizations—where such organizations stand a chance of being effective. In the United States the focus on regulating intermediaries rather than the issuers of securities economized on scarce regulatory resources. Moreover, the SEC harnessed the incentives of intermediaries, and SEC regulators by and large have not used their authority, as they might have, to reward themselves.

* * *

The argument so far can be summarized succinctly. Theory and historical evidence from some developed economies suggest that legal protections matter for corporate governance. But where legal protections are effective, they are accompanied by other institutions. These complementary institutions include elements of political organization, such as constitutions and decentralization, which shape the incentives of the sovereign and increase the power of judicial institutions. Complementary institutions also include information intermediaries and the regulatory organizations that provide intermediaries with the appropriate incentives.

Recognizing the extensive demands for institutional change and the fact that changes take place through a political process has important implications for the dynamics of governance reforms through legal channels. Changes in legal protections affecting financiers, the power of the sovereign, and the regulation of intermediaries are not Pareto improvements: insiders who benefit from the existing situation will lose as a result of reforms. Changes will be the outcome of a political process involving competition among interest groups. As a result, while legal reforms are important, they are unlikely to occur rapidly or to be right in the first instance. Such limitations should lead those interested in improving governance to look for other channels to increase the prospects for promise fulfillment.

Internal Governance Policies: Ownership Structure

An entirely different approach to addressing the functions of corporate governance is to look inside the firm and focus on policies at the discretion of those in control. Many policies—such as the structure and role of the board of directors, the design of executive compensation, and the financial structure—produce information, manage risks and incentives, and resolve competing claims. All of these are important, but they are beyond the scope of this article. Here I concentrate on ownership structure, both the identity and the concentration of owners. Are ownership structures that deviate from the dominant neoclassical model of the small, anonymous, diversified shareholder a second-best approach to provide the functions of governance when legal protections are ineffective?

The impact of ownership structure on the functions of governance is not nearly as straightforward as the impact of legal protections. Deviations from ownership by small anonymous shareholders have ambiguous effects. Since the early work of Berle and Means (1933), scholars have been concerned with the small management stake in large firms and the consequent misalignment of interests. Management ownership—at least at some levels, as Morck, Shleifer, and Vishny (1986) argue—has been seen as a response that improves firms' performance. But Demsetz and

Lehn (1985) and others highlighting the endogenous determination of ownership stakes when the transactions costs of reallocating ownership are low have found no effect on performance.

The main argument advanced below sidesteps this debate by looking across countries where there are significant differences in the effectiveness of legal protections for investors. The contention is that where legal protections are weak as a result of institutional weaknesses, ownership structure has systematic effects, both in theory and in practice. Like legal protections, ownership structure can provide the functions of corporate governance.

PROMISE FULFILLMENT THROUGH OWNERSHIP IDENTITY. Consider a situation with no effective legal protections. In this circumstance investors are likely to be extremely reluctant to give up resources to someone else in exchange for a promise, because if that promise is violated there is no clear penalty they can impose. There is thus the danger of no investment in corporations. The theory of repeated games suggests one way out of this trap. The prospect of linking current violations of promises to future penalties can lead those in control of investor resources to honor their promises. But bilateral reputation mechanisms will often not achieve an efficient level of investment. If insiders in the firm violate the interests of one financier, they may lose the ability to appeal to that financier again, but this threat is a weak deterrent if they can freely access finance from other financiers. Reputation mechanisms can be made more effective if a way is found to magnify the penalty for failing to fulfill promises—in effect replacing bilateral reputation with multilateral reputation.

Where networks exist that provide information, allow for coordinated action, and can enforce such action, the identification of an individual who receives an investment with a network can create a multilateral reputation mechanism. The state's enforcement of legal protections is the ultimate example of such a multilateral mechanism. But it is not the only one. Greif (1997) shows that augmented reputation feedback mechanisms helped drive the commercial revolution—such mechanisms as the community responsibility system, in which any member of a community could be held liable for unmet promises of another member; the identification of traders with specific religious communities, such as the Maghribi; and even artificial communities created by merchants, such as the German Hansa. In all these examples the identification of an individual with a larger community helped increase investment opportunities.

When the controller of investor resources is not anonymous, it is possible to go from no investment to investment. Community affiliation conveys information about the penalties that will be imposed if the controller of the investment violates the terms of agreements—and thus affects investors' beliefs. This deceptively simple logic, constructed to explain historical evidence on the emergence of long-distance trade, has much broader scope. It helps explain why some contemporary economic agents are able to support investments while others have difficulty doing so.

The family-centered and ethnically based business groups common to much of the developing world are networks in which identity matters. Members of the business group have reputations, can collect more information than individuals who are not members, and can collectively enforce penalties. In theory, these advantages facilitate investments that would not be made in the absence of these community ties. Summarizing the evidence on the impact of group affiliation, Khanna (2000) finds that group affiliation often helps rather than harms performance. This result is consistent with the framing described above, but it is also consistent with other theories of group formation.

Business associations are artificial communities that can also support investments in firms if they collect information, coordinate action, and have the incentive to enforce penalties for noncompliance. There is recent evidence of their ability to support trade credit in the weak legal environments of Poland, Romania, Russia, and Ukraine (Johnson, McMillan, and Woodruff 1999) and in that of Vietnam (McMillan and Woodruff 1998).

Foreign owners can also be considered members of networks, which might partly explain the superior performance of foreign-controlled firms in developing markets in India (Chhibber and Majumdar 1999) and the transition economies (Frydman and others 1999; Djankov 1999; and Djankov and Murrell forthcoming). When foreign owners assemble a controlling stake, for example, they become subject to their home country's regulations (both legal requirements and any additional requirements by the stock exchange that lists their shares). These regulations often require them to disclose far more information than demanded by the country in which the investment is located, and the penalties for violating these rules are often the same as if the investment were in the home country. Penalties can also be applied to assets in the firms' home country. Thus foreign owners post something greater than their word when operating in a foreign country.

The argument that identity supports investments is not an argument that identity should be used rather than legal protections; relative to the first-best solution, identity has clear limitations. The ability to pool investments, allocate them across space, and manage risks is constrained by the need for those controlling investments to have clear ties to an identifiable community. There may be inefficiently low levels of information collection by investors.[9] The costs can be high, producing inflexibility. Members of a community that collects private benefits from the networks' presence have a strong interest in seeing that these mechanisms are maintained, even if they are no longer the most efficient mechanism.

Such systems are also likely to introduce added costs when the economy faces temporary or permanent shocks. As Johnson, McMillan, and Woodruff (1999) find, investors relying on informal mechanisms are inclined to maintain those relationships rather than use other mechanisms, even when there are costs to doing so. The costs of relying on reputation mechanisms to support promised returns to investments are unusually sensitive to the future growth prospects of the firm and the need to turn again to outside finance. When the very future of the firm is in question as a result of a change in economic circumstances, such as an economic crisis, even "reputable" owners might engage in unrestrained looting of the firm.

PROMISE FULFILLMENT THROUGH OWNERSHIP CONCENTRATION. A second deviation from anonymous, dispersed shareholding that can enhance promise fulfillment is ownership concentration. The traditional motivation for concentration is that it reduces the public good problem associated with monitoring insiders. The greater the ownership stake, the greater the personal returns to monitoring insiders and exercising voice and the more information owners will collect. Coffee (1999), among others, suggests that the activism of shareholders is proportional to the concentration of ownership. Concentrated owners often become what Jensen (1991) calls the active investor: "one who holds large equity and/or debt positions and actually monitors management, sits on boards, is sometimes involved in dismissing management, is often closely involved in the strategic direction of the company and, on occasion, even manages" (p. 15).

By monitoring managers, concentrated shareholders might also enhance information flows for other providers of resources, particularly if there is a forum to share this information (say, a board of directors). This channel for reducing information gaps is particularly important when information provided through public channels is opaque and not timely.

Bebchuk (1999) offers a more recent rationale for concentration in the presence of ineffective legal protections. Bebchuk focuses on how concentration can resolve competing claims on the wealth generated by the corporation. He suggests that concentrated ownership is the only viable structure in countries with weak legal protections. Where legal protections are weak, the scope for redirection of resources is large. Faced with this situation, a single owner wanting to sell a stake would be much better off selling a large controlling stake than selling dispersed shares. The problem with dispersion is that each dispersed shareholder anticipates that someone will assemble a controlling stake and use that control to redirect resources to himself or herself. Concern about this eventual theft will lower share prices today. The single shareholder maximizes his or her returns to sale by maintaining control; control protects rents.

Concentration may also enhance efficiency. With dispersed shareholding and possibilities for diverting returns, it may not be clear initially which of the dispersed shareholders will assemble a controlling stake. In such a situation those with limited control today but uncertainty about future control have an incentive to dilute quickly and destructively. In contrast, if control is obtained by having a large cash flow stake in the firm, those in control know they will retain control and their temptation to dilute is limited by their ownership stake. At least to some extent, they are simply stealing from themselves. Although concentrated control may not be the only viable option in countries with weak legal protections, it may be more efficient than dispersed shareholding.

In environments with weak legal protections, it may be optimal to have more than one large owner, particularly if the new owners have identifiable characteristics tied to the functions of corporate governance. For example, a potential investor with financial capital might be more willing to invest if suppliers or buyers also have stakes, because even without legal protections these agents have potential leverage over the insider (hold-up power). The small investor knows that if insiders attempt to reallocate promised returns, financiers and suppliers as cofinanciers can credibly threaten to penalize them directly, thereby reducing the likelihood of such an event. Aoki (1984) underscores how labor might be able to police against abuse through its ability to withhold services. Financial institutions are well positioned to play this role. Their hold-up power derives from their ability to cut off not only long-term finance but also short-term capital.

Through the early 1990s many analysts of corporate governance systems in Germany and Japan suggested that a key to the relatively strong performance of firms in these countries was the ownership and control structure, which involved banks, workers, and concentrated owners. These parties have information, the ability to impose sanctions, and the incentive to use their powers. Investors believed that the presence of a bank mattered, and this affected their willingness to invest. Kaplan (1994) and Kaplan and Minton (1994) show that there is little difference in the sensitivity of management turnover to changes in financial performance between Germany and Japan, which rely more heavily on informal mechanisms, and the United States, with its largely formal system. Hoshi, Kashyap, and Scharfstein (1990) show that Japanese firms with bank relationships have greater access to capital and lower costs of resolving financial distress than firms without bank relationships.

As with ownership identity, the argument here is not that ownership concentration is superior to a governance system with effective legal protections. Instead, the argument is that ownership concentration can provide the functions of governance and that, particularly where legal protections are weak, the benefits provided by concentration outweigh the costs.

In fact, the costs can be sizable, for several reasons. First, with concentrated ownership, there is no longer separation and specialization based on the comparative advantages of those providing management and those with capital to invest. Risks are managed less efficiently, and the pool of investors is more limited. Second, as Bolton and von Thadden (1998) emphasize, there is a loss in liquidity, with a resulting decline in the value of shares. Third, with concentrated ownership, those in control are difficult to dislodge. When these insiders are not well motivated, efficiency will decline. Aghion and Blanchard (1996) emphasize the problems that arise when workers or managers have control of the firm. Recent literature on the German and Japanese systems now sees bank affiliation as also costly, with bank involvement leading to overlending and deferred restructuring (Weinstein and Yafeh 1998). Fourth, to the extent that initial owners maintain their concentration through voting rights rather than cash flow rights, incentives to use control in the interests of minority shareholders are reduced. There are various vehicles through which owners can maintain control disproportionate to their cash flow stake—shares with different voting rights, cross-shareholding, or pyramid structures, for example. As discussed below, Claessens, Djankov, and Lang (2000), in their study of Asian firms, provide evidence of costs associated with concentration of control when it is not linked with similar cash flow rights.

* * *

Governance policies, like institutions, clearly provide the functions of corporate governance. Relative to anonymous, dispersed shareholders, owners who are identified with a network and have significant concentration can have a comparative advantage in providing information, managing incentives, and lowering the costs of resolving competing claims on the wealth of the firm. The evidence presented here comes mainly (but not exclusively) from countries in which legal protections are weak. This is consistent with theory, which shows that with weak legal protections other ownership structures are costly and may even be unsupportable. When legal protections are strong, the theoretical results are more ambiguous, as is the evidence.

International Data on Legal Protections and Ownership Structure

The previous section provided a conceptual framework and some suggestive evidence on how to think about institutions and policies that can provide the functions of governance. More systematic studies of the relationship among governance institutions, governance policies, and firms' performance extend these arguments. I first examine cross-sectional data for established firms and then look at data for privatized firms.

Established Firms

Among the most notable studies producing comparable cross-country data on governance institutions and policies are La Porta and others (1998); La Porta, López-de-Silanes, and Shleifer (1999); Pistor, Raiser, and Gelfer (2000); Claessens, Djankov, and Lang (2000); and Becht and Roell (1999).

La Porta and others (1998) collected information on corporate governance characteristics and cash flow ownership for a cross-section of 49 countries. Their sample is heavily weighted with higher-income economies—it covers 93 percent of high-income economies and 62 percent of upper-middle-income economies—but it still covers a significant number of developing countries, with a third of the sample defined by the World Bank as low or middle income.[10] Pistor, Raiser, and Gelfer (2000) provide data on legal protections for 24 transition economies from 1992, when the transition began, through 1998.

La Porta, López-de-Silanes, and Shleifer (1999) provide an alternative measure of ownership concentration for a sample of 691 firms in the 27 most developed countries. This study has been complemented by more detailed studies of the concentration of voting rights in particular regions. Becht and Roell (1999) report on studies based on 1,381 firms in eight European countries under the umbrella of the European Corporate Governance Network. Claessens, Djankov, and Lang (2000) study 2,980 firms in nine East Asian economies.

LEGAL PROTECTIONS FOR EQUITY INVESTORS. The data reveal surprising heterogeneity in investor protections around the world—and a significant number of countries with weak protections. To illustrate these differences, I focus on protections for equity investors—the six anti-director rights (see the section on national legal protections). Of a maximum score of 6 for anti-director rights, the highest score in the country sample in La Porta and others (1998) is 5 and the average just 3 (table 1). Interestingly, the scores for anti-director rights are not driven by differences in per capita income, with average levels indistinguishable at different income quartiles.

Pistor, Raiser, and Gelfer (2000) evidence for the transition economies expands our understanding of legal protections in countries not classified as high income. Echoing the findings of La Porta and others (1998), they find wide variation in the extent of legal protections across countries and many countries with relatively weak protections. They also document improvement in the transition economies, where the average score for anti-director rights rose from 1.8 in 1992 to 3.0 in 1998—identical to the average for the established economies investigated by La Porta and others.

The change in the extent of legal protections from 1992 to 1998 in the Pistor and others sample demonstrates one reason why legal protections have become the subject of such policy interest. Unlike the complementary institutions described above, legal protections can be changed very rapidly. And efforts by the international community matter. As Pistor, Raiser, and Gelfer (2000) show, countries that received U.S. aid have more legal protections than other countries in the sample, including those preparing for membership in the European Union.

COMPLEMENTARY INSTITUTIONS. Statistical research has not focused on the complementary institutions of judicial efficiency, information intermediaries, and the circumstances that create incentives for those intermediaries. Where these complementary institutions have found their way into the analysis, they have done so through relatively crude proxies. A number of studies use "rule of law" or "efficiency of the judiciary" indexes compiled by commercial risk agencies as proxy measures for judicial efficiency. To capture the presence of publicly available information, these studies use an index that indicates whether 90 factors identified by accountants as useful indicators of a firm's financial affairs are included in the company's annual report. (See La Porta and others 1998 for a description of these variables and their sources.)

The extent of the rule of law is very closely linked with per capita income: the correlation coefficient between the log of per capita GDP and the rule of law measure is 0.87. The accounting standards index ranges from a low of 24 (out of 90) for Egypt to a high of 83 for Sweden (data are unavailable for some countries). The correlation coefficient with respect to the log of per capita GDP is a lower but still significant 0.51.

While sometimes criticized as an artificial distinction by legal scholars, legal origin has surprising explanatory power, significantly affecting anti-director rights and other variables. The strongest difference is between countries with a French civil law origin and those with a common law origin. The mean index for anti-director rights, the rule of law, and accounting standards is higher in common law countries, and the difference is significant for anti-director rights.

For the purposes of presentation in this article, I create an "effective legal protections index" that more directly captures the conjectured complementarity of legal

Table 1. Legal Protections in Selected Economies

La Porta and others (1998) sample

Country and legal origin	Anti-director rights index (6)	Rule of law (10.00)	Accounting standards index (90)	Effective legal protections index (100)
English common law				
Australia	4	10.00	75	67
Canada	5	10.00	74	83
Hong Kong	5	8.22	69	69
India	5	4.17	57	35
Ireland	4	8.75	—	52
Israel	3	4.82	64	24
Kenya	3	5.42	—	27
Malaysia	4	6.78	76	45
New Zealand	4	10.00	70	67
Nigeria	3	2.73	59	14
Pakistan	5	3.03	—	25
Singapore	4	8.57	78	57
South Africa	5	4.42	70	37
Sri Lanka	3	1.90	—	10
Thailand	2	6.25	64	21
United Kingdom	5	8.57	78	71
United States	5	10.00	71	83
Zimbabwe	3	3.68	—	18
French civil law				
Argentina	4	5.35	45	36
Belgium	0	10.00	61	0
Brazil	3	6.32	54	32
Chile	5	7.02	52	59
Colombia	3	2.08	50	10
Ecuador	2	6.67	—	22
Egypt, Arab Republic	2	4.17	24	14
France	3	8.98	69	45
Greece	2	6.18	55	21
Indonesia	2	3.98	—	13
Italy	1	8.33	62	14
Mexico	1	5.35	60	9
Netherlands	2	10.00	64	33
Peru	3	2.50	38	13
Philippines	3	2.73	65	14
Portugal	3	8.68	36	43
Spain	4	7.80	64	52
Turkey	2	5.18	51	17
Uruguay	2	5.00	31	17
Venezuela, Republica Bolivariana de	1	6.37	40	11
German civil law				
Austria	2	10.00	54	33
Germany	1	9.23	62	15
Japan	4	8.98	65	60
Korea, Republic of	2	5.35	62	18
Switzerland	2	10.00	68	33
Taiwan, China	3	8.52	65	43
Scandinavian civil law				
Denmark	2	10.00	62	33
Finland	3	10.00	77	50
Norway	4	10.00	74	67
Sweden	3	10.00	83	50
Average	**3.0**	**6.9**	**60.9**	**35.0**

Pistor and others (2000) sample

Country	Anti-director rights 1992 (6.00)	Anti-director rights 1998 (6.00)	Rule of law index (10.00)	Effective legal protections index at beginning of privatization (100)
Armenia	2.50	5.50	4.9	20
Azerbaijan	2.50	2.00	3.2	11
Belarus	1.50	1.50	2.3	6
Bulgaria	4.00	4.00	5.9	39
Czech Republic	2.00	3.00	8.3	28
Estonia	2.00	3.75	8.5	28
Georgia	2.50	3.00	4.0	17
Hungary	2.50	3.00	8.7	36
Kazakhstan	2.50	5.25	4.5	19
Kyrgyz Republic	2.50	2.25	4.4	18
Latvia	2.50	3.50	7.5	44
Lithuania	2.50	3.75	7.2	30
Moldova	3.00	3.50	4.7	24
Poland	3.00	3.00	8.7	44
Romania	3.00	3.00	5.6	28
Russian Federation	2.00	5.50	3.7	12
Slovak Republic	2.50	2.50	6.4	27
Slovenia	0.00	2.50	8.4	0
Ukraine	2.50	2.50	3.4	14
Uzbekistan	2.50	3.50	2.7	11
Average	**2.44**	**3.00**	**5.82**	**22**

— Not available.
Note: The numbers in parentheses are the maximum values for the indexes.
Source: La Porta and others 1998; Pistor and others 2000; and author's calculations.

protections and their enforcement (see table 1). This index is constructed by taking the simple product of the index of anti-director rights (rescaled to vary from 0-10) and the rule of law measure.

OWNERSHIP STRUCTURE. Who controls firms? Recent research has added greatly to our understanding of the types of ownership structures around the world (results from three of the most cited studies in this literature are reproduced in table 2). La Porta and others (1998) collected data on cash flow ownership for the same sample of 49 countries described above. But cash flow ownership might not capture who controls firms when voting concentration differs from cash flow concentration. To determine whether any entity has sufficient voting rights to control a firm, La Porta, López-de-Silanes, and Shleifer (1999) track ultimate owners through pyramids and cross-shareholding arrangements. A shareholder with a direct or indirect voting stake of 20 percent or more is said to have control.

So what does ownership look like? The strongest finding from all these studies is that around the world, firms held by anonymous, dispersed shareholders are the exception rather than the rule. This is clearly demonstrated in the first column in table 2, which shows that the combined stakes of firms' three largest shareholders (based on cash flow) average a surprisingly high 46 percent. Only in Japan, Taiwan (China), the United Kingdom, and the United States do the combined stakes average 20 percent or less.

Using voting rights to measure concentration reinforces the conclusion that dispersed ownership is rare. With control defined as a direct or indirect voting stake of 20 percent or more, only 36 percent of the largest firms are widely held in countries in the La Porta and others (1998) sample. These results are robust. The limited role of dispersed shareholders is evident in Europe: the data in Becht and Roell (1999) show that only 22.4 percent of firms in Austria, Germany, and the Netherlands have a controlling shareholder with less than a 25 percent stake. This result is echoed in Asia, where only 32 percent of firms are widely held (Claessens, Djankov, and Lang 2000). What is true for the largest firms around the world holds with even greater strength for medium-size firms. In the La Porta, López-de-Silanes, and Shleifer (1999) voting rights sample, for example, just 24 percent of medium-size firms are widely held. Within the sample, the smaller the firm, the greater the likelihood that there is a controlling shareholder.

The distinction between cash flow rights and voting rights turns out to be important, for the two are routinely separated. The evidence shows that the most common way to separate these rights is through the use of pyramid structures. Less common is cross-shareholding, although this is important in such countries as Japan. Surprisingly rare are instances of issuing multiple shares with different voting rights.

Jensen's (1991) contention, based on evidence from the United States, that concentrated owners often become active investors is consistent with the international evidence. In most firms with a controlling shareholder the distinction between owners and managers is eliminated. When a family is the controlling shareholder, family members participate directly in management in 69 percent of cases in the La

Table 2. Ownership Concentration As Measured by Cash Flow and Voting Stakes
(percent)

Country	*Average combined cash flow stakes of firms' three largest shareholders*[a]	*Share of large firms with a controlling shareholder*[b]	*Share of medium-size firms with a controlling shareholder*[b]
Argentina	53	100	100
Australia	28	35	70
Austria	58	95	100
Belgium	54	95	80
Brazil	57	—	—
Canada	40	40	40
Chile	45	—	0
Colombia	63	—	—
Denmark	45	60	70
Egypt, Arab Republic	62	—	—
Finland	37	65	80
France	34	40	100
Germany	48	50	90
Greece	67	90	100
Hong Kong	54	90	100
India	40	—	—
Indonesia	58	95	94
Ireland	39	35	37
Israel	51	95	90
Italy	58	80	100
Japan	18	10	70
Korea, Republic of	23	45	70
Malaysia	54	95	88
Mexico	64	100	100
Netherlands	39	70	90
New Zealand	48	70	43
Nigeria	40	—	—
Norway	36	75	80
Pakistan	37	—	—
Peru	56	—	—
Phillippines	57	95	84
Portugal	52	90	100
Singapore	49	85	60
South Africa	52	—	—
Spain	51	65	100
Sri Lanka	60	—	—
Sweden	28	75	90
Switzerland	41	40	50
Taiwan, China	18	85	64
Thailand	47	95	94
Turkey	59	—	—
United Kingdom	19	0	40
United States	20	20	10
Venezuela, Republic Bolivariana de	51	—	—
Zimbabwe	55	—	—
Average	**45.89**	**68.13**	**75.27**

— Not available.
a. Data are from La Porta and others (1998). Large firms are defined here as the ten largest publicly traded companies.
b. A controlling shareholder is defined as one who has a direct or indirect voting status of 20 percent or more. Data are from La Porta, Lopez-de-Silanes, and Shleifer (1999) and Claessens, Djankov, and Lang (2000). Where results from the two studies differ, those from La Porta, Lopez-de-Silanes, and Shleifer (1999) are used. Large firms are defined as the twenty largest publicly-traded companies in 1995. Medium-sized firms defined as the twenty smallest publicly-traded firms with market capitalization greater than $500 million in 1995.
Source: As specified in the notes above.

Porta and others sample and 67 percent in the Claessens, Djankov, and Lang sample for East Asia.

These data also allow an examination of the theoretical argument that multiple large shareholders may be important to facilitate investment in firms. For industrial economies there is little evidence of multiple large investors. When a family is in control, other concentrated owners are found in only 25 percent of cases in the La Porta, López-de-Silanes, and Shleifer (1999) sample. And in Europe the median stake of the second-largest shareholder is almost always below the minimum reporting level of 10 percent.

For developing economies there are fewer data, and the conclusions that can be drawn are less clear-cut. Interestingly, a second large shareholder is far more common in the Claessens, Djankov, and Lang (2000) sample of East Asian economies. In this more economically diverse sample, 49 percent of firms had a second shareholder with a significant stake. This evidence reopens the question of whether multiple large shareholders are important to governance in developing economies.

Privatized Firms

Privatized firms provide another data set that can be examined to study whether legal protections help explain ownership structure and firms' performance. In many ways privatized firms are ideal. They are often large firms, for which governance concerns are most important. The initial ownership at the time of privatization is in many ways a choice variable for politicians, so examining initial structures reveals whether political decisionmakers believe that the existing state of legal protections imposes some constraints on their actions. Most important, this is a good data set for examining whether the effectiveness of legal protections affects the evolution of ownership structures and firms' performance. If legal protections are a binding constraint, this should be reflected in disappointing performance and instability in environments with weak protections when ownership is dispersed. In these same environments concentration and identity should contribute to better performance.

No study provides the same systematic information on ownership concentration for privatized firms that has been collected for established, publicly traded firms. As an (imperfect) proxy, for which there are data, studies by Megginson and others (forthcoming) examine the relative tendency of governments to use asset sales rather than share issues to privatize state-owned enterprises in countries with established private sectors. Share issue privatizations are likely to produce ownership structures in which there is no controlling shareholder. Asset sales, in contrast, are usually associated with sales of a majority stake to a single investor or a consortium of investors arranged before the sale. Governments often establish prequalification criteria before the sale and conduct the sale through an auction or by direct sale to a targeted investor. Investigation of winning consortia shows that almost all have a core investor. Thus asset sales are likely to produce a controlling shareholder.

The transition economies represent a particularly rich source of data on legal protections and ownership structures. It is possible to construct a similar "effective legal protection index" as used for established firms. The effective legal protection index is based on the Pistor, Raiser, and Gelfer (2000) minority shareholder protection index in the year that marked the beginning of the country's privatization program. The rule of law index is the score for that index in 1998, the first year with comparable information. Overall scores for effective legal protections are low. To repeat the obvious, the odds were against effective formal protections. The historical legacy of socialism included an atrophying of legal frameworks to support private ownership. Courts were not independent. Legislation was at times slow to develop, and in other cases what was written was weakly enforced.

While no single data source has collected data on the concentration of ownership in privatized firms, there is a high correlation between the privatization approach taken and the resulting ownership structure. The European Bank for Reconstruction and Development (EBRD 1999) classifies economies on the basis of whether the primary approach was voucher privatization, direct asset sales, or management and employee buyouts. A voucher privatization is a share issue privatization that results initially in dispersed ownership. Direct asset sales result in more concentrated ownership. Management and employee buyouts are somewhere in between voucher privatizations and direct sales in terms of creating concentration at the time of privatization.

Individual country studies provide better measures of ownership structures created through privatization programs. Djankov and Murrell (forthcoming) identify 23 studies that relate ownership structure to performance. Collectively, these studies introduce 11 different ownership structures, with a fair degree of overlap in classifications. The most common distinction is between private and state ownership, but private ownership is broken down into several categories, including dispersed ownership and concentrated ownership by type of owner. An important distinction is between firms in which the dominant shareholders are insiders and those in which they are outsiders. Another distinction is between types of outsiders, including banks, investment funds, and foreign owners.

Findings

It is possible only to scratch the surface of work that relates legal protections, ownership structure, and performance. Focusing on the impact of legal protections on ownership structure, financial performance, and investment, I first examine the data for established, publicly traded firms and then turn to evidence for privatized firms, which provides a more detailed picture of the relationship between ownership structure and performance.

Legal Protections and Ownership Structure in Established Firms

The extent of legal protections is highly correlated with ownership structure: the relationship between legal protections and ownership concentration for large firms is strongly negative, as reflected in the downward sloping line of best fit in figure 1. Analysis by La Porta and others (1998) that controls for other contributors to concentration bears out these results. Such evidence is consistent with the contention that in established, publicly traded firms ownership concentration is a substitute for legal protections in providing the functions of corporate governance.

While anti-director rights are important, other types of legal protections also matter, as does their interaction. For the raw data, the explanatory power provided by anti-director rights and the rule of law is comparable. Anti-director rights explain 15 percent of the observed variation in the concentration for cash flow rights and 13 percent for voting rights; the rule of law explains 21 percent of the variation in the concentration of cash flow rights and 17 percent of that for voting rights. The effective legal protections index, that is the simple product of the anti-director rights and rule of law indices explains 32 percent of the variation in the concentration of cash flow rights and 28 percent of that for voting rights (figure 2). The point here is not to offer a new evaluation of the data but to reveal the empirical support for the contention that complementary governance institutions are critical contributors to the observed relationships between legal protections and other variables.

A second result, apparent in the plots of raw data, is that supporting anonymous, dispersed shareholders is particularly difficult in countries with weak legal protections, as shown by the blank space in the bottom left-hand corner in all the panels in figure 1 and figure 2. This finding is consistent with theory, which suggests that dispersed shareholding is unlikely to emerge and will not be sustainable with weak legal protections. The raw data suggest that the rule of law is particularly important. When concentration is measured by voting rights and the rule of law measure falls below 7, more than 10 percent of firms are widely held in only one country (the Republic of Korea).

A third result is that with effective legal protections it is hard to discern a distinct relationship between ownership and the quality of laws. While strong legal protections are necessary to support small, diversified shareholders, many countries that have such protections still use concentrated ownership. This is particularly true in Europe. This puzzle suggests either that the costs of ownership concentration have been exaggerated, or that other forces are at work to limit the ability to disperse ownership.

Legal Protections, Financial Performance, and Investment in Established Firms

Some of the most striking results relate institutions of corporate governance to financial performance. La Porta and others (2000) report that firms in countries with stronger legal protections are more likely to distribute earnings through dividends. Consistent with this result and with theory, La Porta and others (1999a) and Claessens, Djankov, and Lang (2000) show that legal protections enhance the value of shares (measured using Tobin's Q). The interpretation is that because legal protections convey power to minority shareholders, the market places a higher value on shares. As in studies relating legal protections to ownership, the impact of legal protections comes not only through anti-director rights but also through other variables.

Figure 1. Legal Protections and Ownership Concentration in Large Firms in Selected Economies

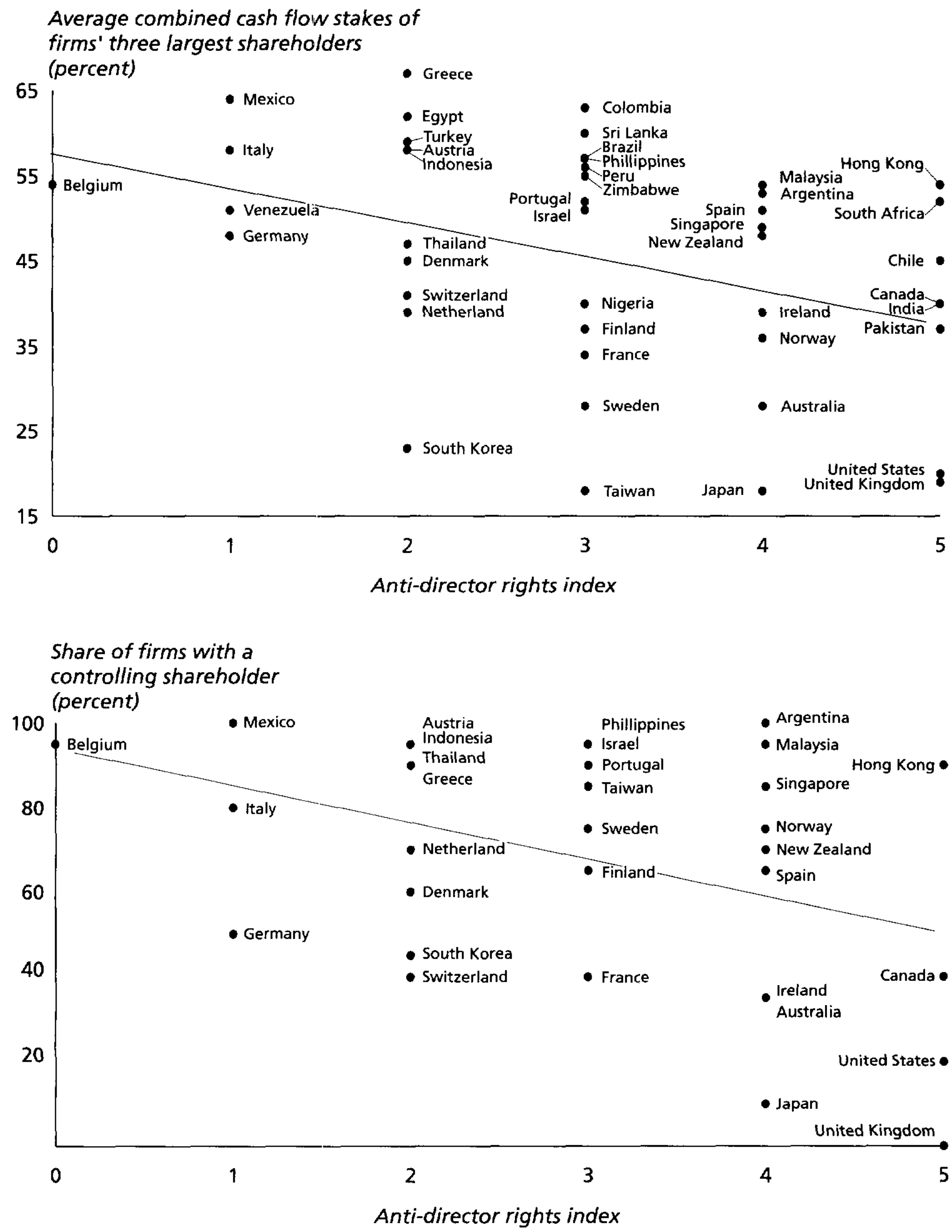
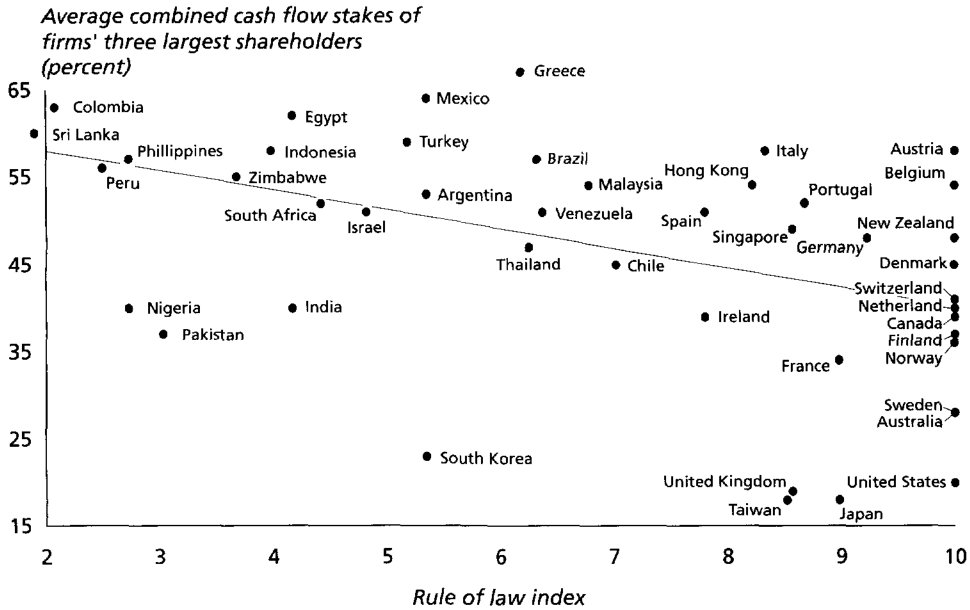
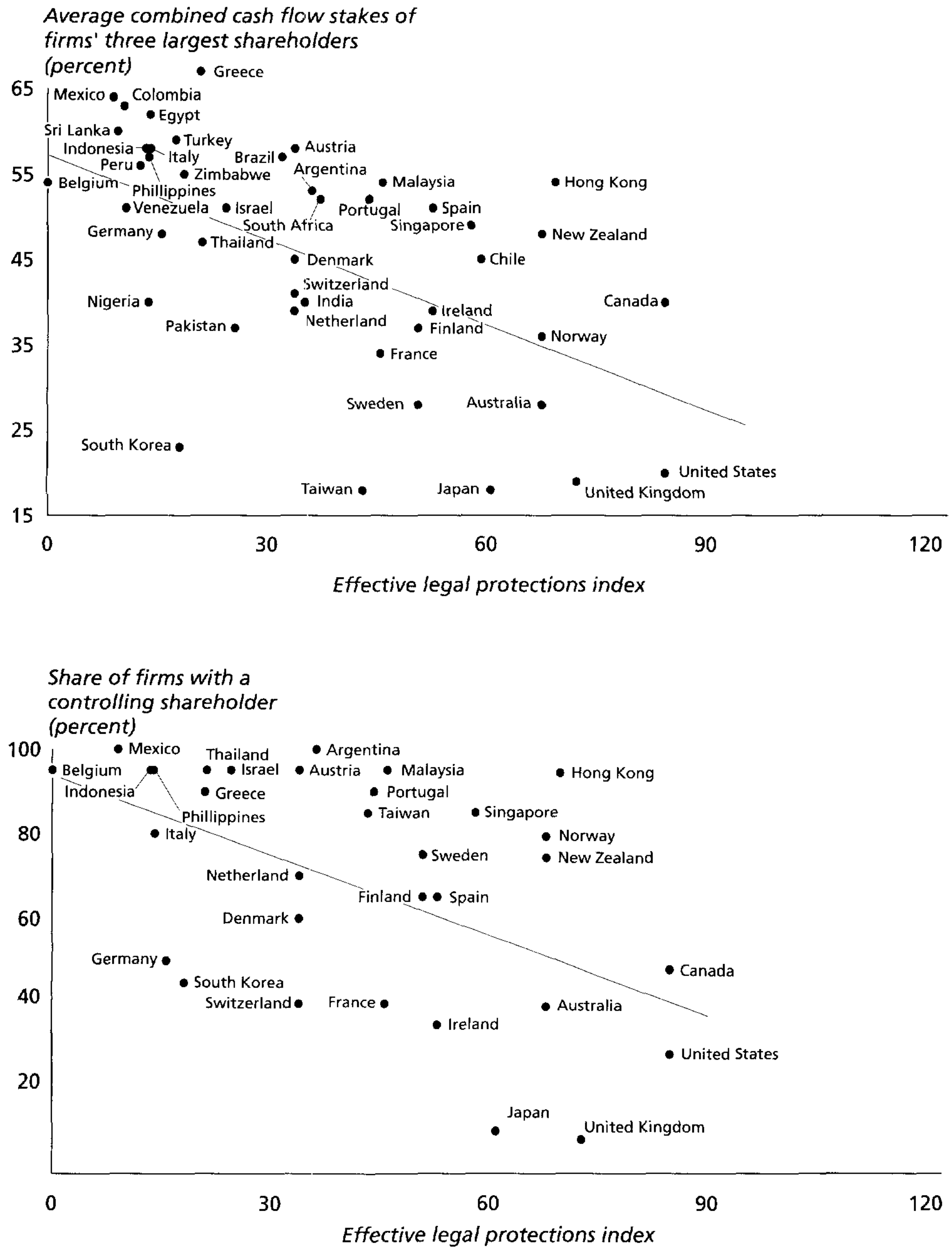


Figure 1. cont.



Source: For ownership concentration, La Porta and others (1998) and Claessens, Djankov, and Lang (1999); for legal protections, La Porta and others (1998).

Figure 2. Effective Legal Protections and Ownership Concentration in Large Firms in Selected Economies



Source: For ownership concentration, La Porta and others (1998) and Claessens, Djankov, and Lang (1999); for legal protections, author's calculations based on data from La Porta and others (1998).

Legal origins and, to a lesser extent, anti-director rights raise the value of shares.

These studies also show that ownership concentration through cash flow stakes is valued. To avoid confounding concentration with control, they look at concentration in firms that are "controlled" according to their measure of direct and indirect control. Consistent with theory, Claessens, Djankov, and Lang (2000) find strong evidence that concentrated cash flow ownership increases value, while concentrated voting rights reduce it. La Porta and others (1999a) present weaker evidence of the benefits of concentrated cash flow ownership.

Johnson and others (2000) illustrate that legal protections may be particularly important during times of crisis. They show that in East Asia during the recent financial crisis, countries with weaker formal protection mechanisms suffered larger declines in share prices and currency values than countries with stronger protections. These institutional variables have at least as much predictive power as standard macroeconomic variables.

Probably the most interesting findings are those that get directly at the aggregate measure of the effectiveness of governance—the efficiency with which resources are mobilized and reallocated within firms and across industries. La Porta and others (1997) provide evidence that the extent of legal protections for financiers is correlated with the depth of equity markets and the rate of initial public offering activity. The rationale is straightforward. With effective legal protections, investors have good reasons to expect that their promises will be fulfilled. Because they are more willing to exchange their resources for promises, the cost of financing drops and financial markets develop. Wurgler (2000) shows that the efficiency of the allocation of investment is related to legal protections. His estimates reveal a greater sensitivity of investment to growth opportunities in countries with more developed financial markets (an indirect link to legal protections) and a greater willingness to reduce investment in declining industries in countries with weak legal protections (measured as effective legal protections, in this case as the product of rule of law and the sum of creditor and anti-director rights).

The links between legal protections, firms' performance, and economic growth remain indirect but very suggestive. Studies such as Rajan and Zingales (1998) show strong links between the extent of financial development and subsequent economic growth and development.

Legal Protections and Ownership Structure in Privatized Firms

The evidence for privatized firms reinforces these findings and adds support to the contention that ownership structure is important in countries with weak legal protections. In regressions that control for a variety of factors in privatizations in 80 countries, Megginson and others (forthcoming) report that legal protections and the government's ability to credibly commit to property rights are both significant in explaining the choice of privatization approach.

The United Kingdom, for example, with its excellent legal protections, relied on share issue privatizations with widely dispersed shareholding. The average ownership stake of the largest shareholder for a sample of 25 electricity and water supply companies privatized in the United Kingdom was just 4.6 percent in the year of privatization (see Cragg and Dyck 1999b). In contrast, middle-income countries with weak effective legal protections used asset sales, which Megginson and others report accounted for 89 percent of privatizations in Argentina, 91 percent in Mexico, and 100 percent in Bolivia. In López-de-Silanes's (1997) privatization sample for Mexico controlling stakes were sold in 87 percent of firms; when noncontrolling stakes were sold, shares were purchased by the preexisting controlling shareholder in 83 percent of the cases.

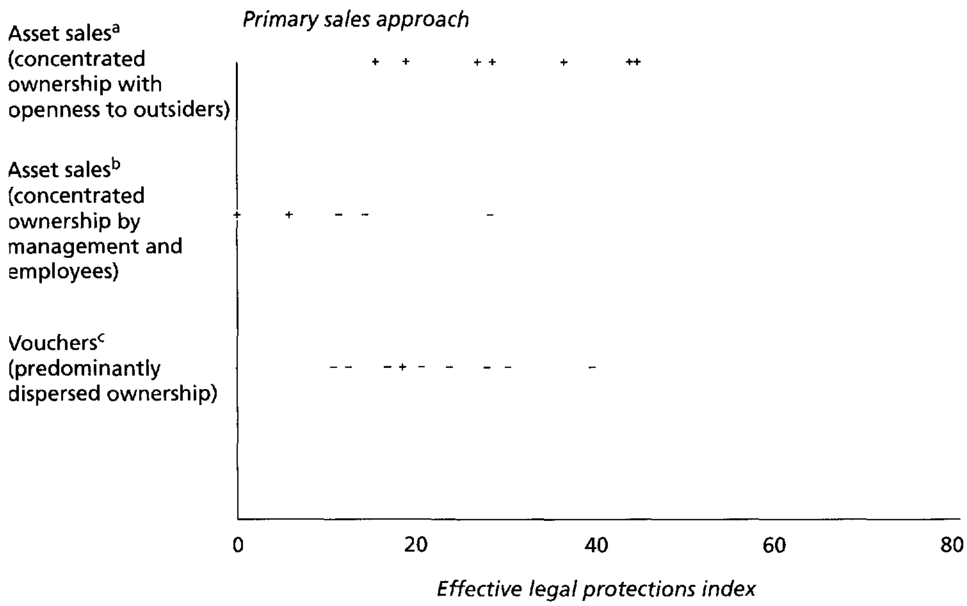
The transition economies followed neither established publicly traded firms nor privatized firms in the rest of the world. Here initial ownership structures were not related in any systematic way to the effectiveness of initial legal protections. In contrast with the privatization samples discussed above, many transition economies with weak effective legal protections used a privatization approach (vouchers) that did not facilitate concentrated ownership initially, and even those using asset sales largely eschewed attempts to sell firms to owners with an established reputation of promise fulfillment (figure 3). The presence of countries in the bottom left corner of figure 3 shows that they followed a path without empirical support and with little theoretical backing.

At the same time, several transition economies with weak effective legal protections at the time of privatization used asset sales open to outsiders. Estonia's privatization program, for example, closely followed that of Germany (see Nellis 1996). Vouchers were used, but in most instances minority stakes of only about 40 percent were targeted to voucher holders, while 60 percent was sold to strategic investors. Most strategic investors were foreign, with Swedes and Finns of Estonian descent playing an important role. The German experience is also illustrative. German privatization officials had significant freedom to choose the degree of ownership concentration, with many demands for a broad distribution of shares to eastern Germans. However, as Dyck (1997) describes, their approach—using asset sales rather than share issues, with openness to foreigners and a preference for firms with management capabilities and experience in the sector—resulted in eastern German firms being purchased by established western German firms. Eastern German firms thus inherited the corporate governance structure of established western German firms, a structure viewed internationally as effective in addressing governance problems.

Legal Protections and Financial Performance in Privatized Firms

Evidence from various studies is broadly consistent in its portrayal of the benefits associated with privatization. As Megginson and Netter (forthcoming) emphasize in a comprehensive survey of privatization, the financial impact of privatization is overwhelmingly positive. There is also evidence that privatization produces more effective corporate governance. Cragg and Dyck (1999a, b) present evidence that managers in privatized firms are far more likely to be rewarded or penalized on the basis of their financial performance than managers in state enterprises. Studies suggest that such governance reforms contribute to improved performance. The notable exception remains the transition economies, where performance has been

Figure 3. Effective Legal Protection and Dominant Approach to Ownership Concentration in Privatized Firms in Transition Economies



Note: + indicates that the country's GDP growth was higher than the mean for the region during 1991–98.
– indicates that the country's GDP growth was lower than the mean for the region during 1991–98.
The effective legal protection index is based on Pistor, Raiser, and Gelfer (2000) minority shareholder protection index in the year that marked thebeginning of the country's privatization program. Regions include Central and Eastern Europe, the Baltics, and theCommonwealth of Independent States.
a. Includes from left to right Eastern Germany, Kazakhstan, Slovak Republic, Estonia, Hungary, Poland, Latvia.
b. Includes from left to right Slovenia, Belarus, Uzbekistan, Ukraine, Romania.
c. Includes from left to right Azerbaijan, Russian Federation, Georgia, Kyrgyz Republic, Armenia, Moldova, Czech Republic, Lithuania, Bulgaria.
Source: EBRD (1999) with author modifications. Growth data and regional classifications are from the International Monetary Fund as presented in Havrylyshyn and Wolf (1999).

disappointing and firms were more likely to adopt ownership structures not predicted by the extent of legal protections.

No systematic efforts have been made across countries that have pursued privatization to see whether the initial ownership structure at the time of privatization relative to the legal environment helps explain subsequent performance. But regional studies focusing on the transition economies find links between initial ownership structures and subsequent performance, measured by financial returns and the effectiveness of restructuring efforts.

An indication of a relationship between ownership structure and performance is provided by data on national level performance (this is just suggestive, many other factors determine national performance). The initial approach to privatization correlates with the country's subsequent growth experience. In figure 3 I have indicated with a plus sign countries that have per capita GDP growth rates from 1991 to 1998 that exceeded the mean for those in the same region. I have indicated with a negative sign countries that had lower per-capita GDP growth rates than countries in their region.[11] Those that held to international benchmarks and introduced concentrated ownership structures to reflect the weak legal environments have done better than average in their regions. Those countries that pursued voucher privatization, such as the Czech republic, have done worse, sometimes spectacularly worse.

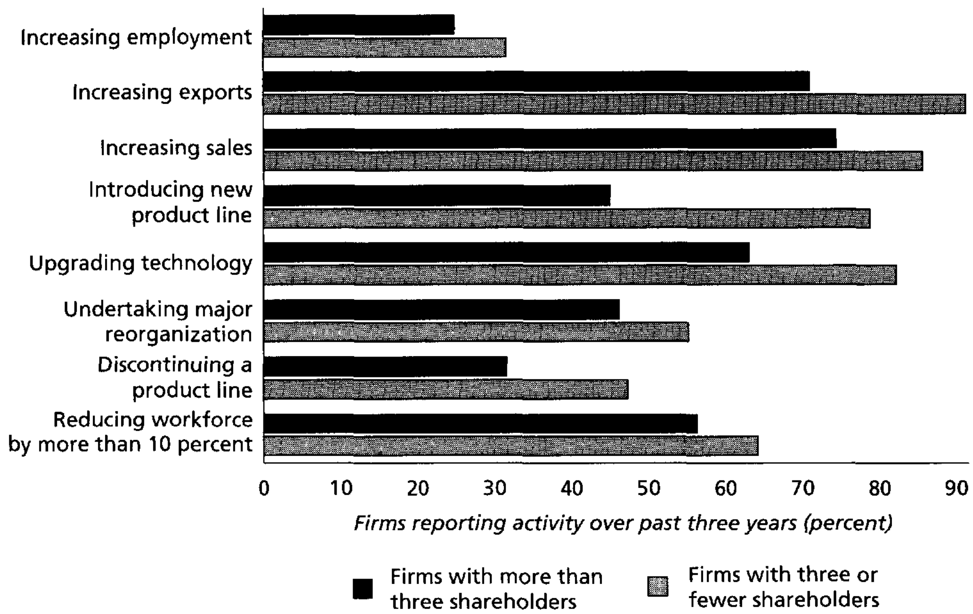
More convincing than this macroeconomic evidence are the results from firm-level studies. Djankov and Murrell (forthcoming) summarize evidence from 23 such studies in a meta-analysis, developing estimates of the impact of different ownership structures on performance relative to the alternative of continued state ownership. These studies, many of which control for country-specific factors and possible selection biases in the privatization method for particular firms, include Djankov (1999) for the Commonwealth of Independent States (CIS) and Frydman and others (1999) for the Czech Republic, Hungary, and Poland.

Their findings indicate that ownership structure has systematic and significant effects on performance. Consistent with the argument above and the evidence for established firms, in countries with weak legal protections dispersed ownership is the least effective corporate ownership structure. Compared with the most effective structure, foreign ownership, dispersed ownership has just a tenth the impact on performance. Outsiders are more effective than insiders in improving performance, with foreigners the most effective. Other outsiders with concentrated ownership, such as investment funds and blockholders, are also very effective.

A survey of 3,000 enterprises conducted by the World Bank and the EBRD provides similar findings (EBRD 1999). This study is less sophisticated in controlling for possible biases than the studies used in the Djankov and Murrell meta-analysis, but it has the advantage of a consistent data collection procedure. For all indicators of restructuring—from reducing the workforce to introducing new products and technology to increasing sales and employment—reform is much greater in firms with three or fewer shareholders than in those with more than three (figure 4). Beyond ownership concentration, the identity of the owners also matters for improved governance (figure 5). Firms sold to foreigners outperform state-owned firms and firms sold to domestic citizens on all indicators of restructuring. The stronger effects of ownership structure on performance in the institutionally weaker CIS countries in both figure 4 and in the Djankov and Murrell survey hints at the links between institutional development and the efficiency of different ownership structures.

Offsetting benefits to ownership structures that are inappropriate for the extent of legal protections are hard to find. Pistor, Raiser, and Gelfer (2000) present evidence that transition economies that pursued mass privatization started with stronger legal protections (2.55 on the anti-director rights index in 1992) than others (1.85) and have maintained the difference (3.61 in 1998, compared with 2.71). But the mass privatizers often introduced the improvements in protections after privatization rather than before, and the possible benefits of these legal protections appear to have been undermined by poorer market oversight. Pistor and others' index reveals that despite starting with stronger oversight in 1992, countries that had pursued mass privatization had weaker oversight by 1998.

Figure 4. Ownership Concentration and Restructuring Activity in Transition Economies



Source: EBRD (1999, chart 9.3), based on World Business Enterprise Survey of industrial firms (excluding new enterprises) with more than 200 employees.

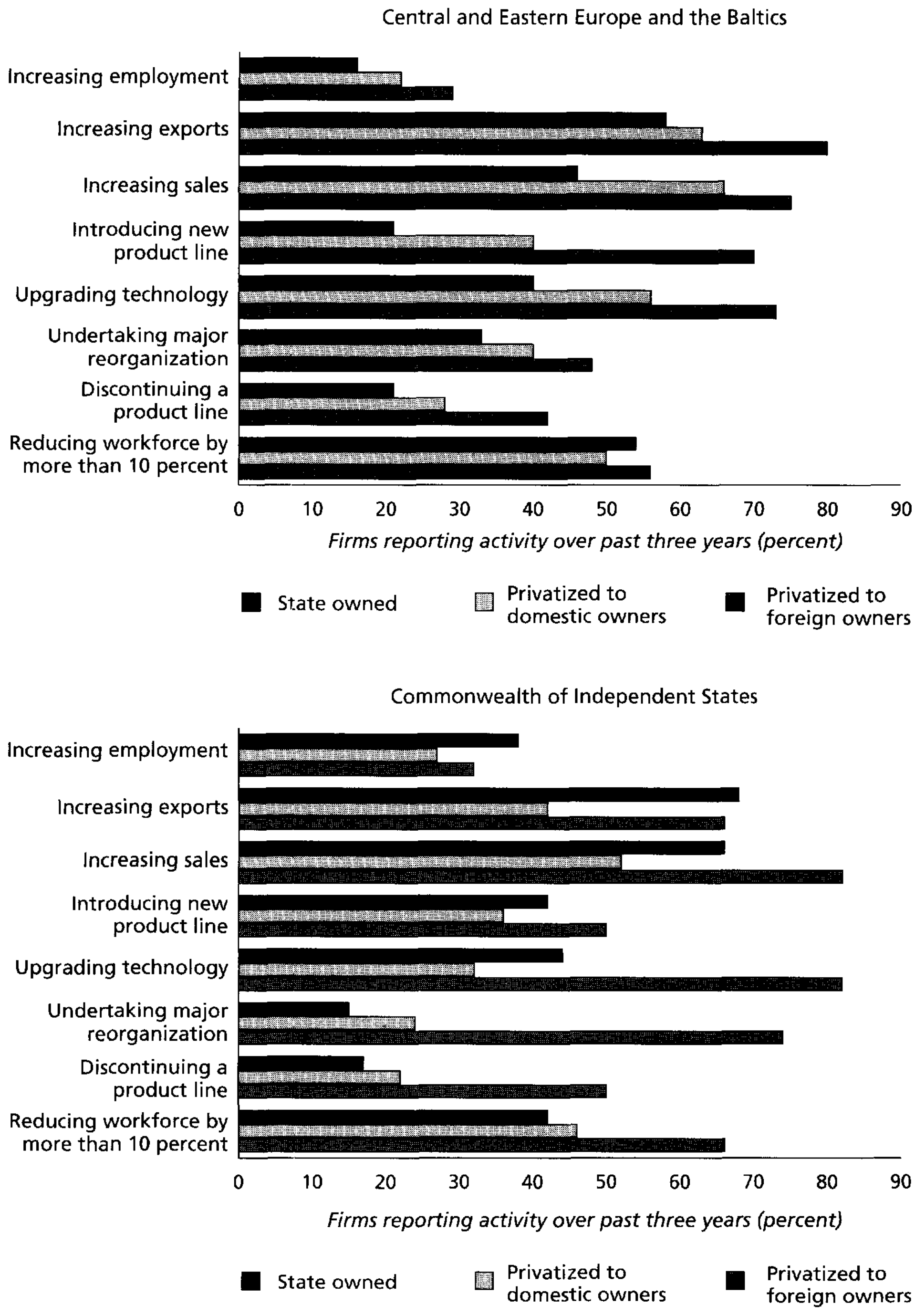
Policy Implications

What priorities do this functional framing and evidence suggest for decision makers interested in improving corporate governance systems? I present three broad agenda items, in declining order of importance.

Aligning Governance Policies with Existing Legal Protections

Governance policies relating to the ownership structure of privatized and established firms should be aligned with the existing state of legal protections. Institutions are amenable to change, but the institutional depth required to create effective legal protections develops only in the medium to long run. My reading of the evidence, particularly for privatized firms, is that a misalignment of ownership structure with the legal environment has large costs. In environments with weak legal protections, not only are anonymous, dispersed ownership structures unsustainable, but recognition of their lack of sustainability encourages socially wasteful activities. A possible rationale for such an approach—that it will stimulate an increase in effective legal protections—does not have much support.

Figure 5. Type of Ownership and Restructuring Activity in Transition Economies



Source: EBRD (1999, chart 9.2), based on World Business Enterprise Survey of industrial firms (excluding new enterprises) with more than 200 employees.

For established firms (such as firms affiliated with business groups), the privatization evidence suggests caution in adopting policies that transform established ownership patterns. Increasing the concentration of cash flow ownership and reducing the gap that may exist between cash flow ownership and voting rights (by limiting pyramiding, for example) are likely to be beneficial. But attempts to force dispersed structures are problematic. Although anonymous, dispersed shareholding has benefits relative to other ownership structures, those benefits do not outweigh the costs where legal protections are weak.

I do not disagree with scholars who see concentrated ownership structures as problematic. For example, Claessens, Djankov, and Lang (2000) suggest that:

> The concentration of corporate control in the hands of a few families creates powerful incentives and abilities to "lobby" government agencies and public officials for preferential treatment...A concentrated control structure of the whole corporate structure could lead to the suppression of minority rights and hold back the institutional development of legal and regulatory channels to enforce those rights. (p. 109)

But there is no convincing evidence that forcing a replacement of such structures with more dispersed shareholding, while legal protections remain ineffective, will represent an improvement. In my reading of the evidence, the ownership structure is more a response to the institutional environment than the source of that environment.

Policy actions that produce marginal improvements in developed economies might have the opposite effects in economies with poor investor protections. Simply put, economists' intuition based on the assumption that contracts will be upheld can be misleading in environments with weak legal protections. This suggests a need for caution in adopting common approaches to addressing governance concerns. Policymakers are advised to focus on fostering the functions of effective governance systems rather than replicating institutions.

Benchmarking Reforms of Governance Institutions

Reforms of governance institutions need comprehensive study and benchmarking to be effective. Institutional reforms have value, but because institutions are complementary, reforms have greater value when they occur together. So, the aim of corporate governance reform should not be to increase legal protections alone, but to increase effective legal protections that can provide the functions of governance. A dramatic improvement in laws will have little value if it is not enforced. Weaker legal reforms that can be enforced are more likely to limit abuses of authority by entrepreneurs.

The research described here has made significant progress in outlining tools for benchmarking. For legal protections, the technique of La Porta and others (1998) for identifying key legal protections for financiers is a good starting point, although, as the authors acknowledge, it is incomplete. Other legal protections not found in company law can substitute for the protections they discuss to lower the cost of resolving competing claims on the wealth generated in the firm. Expanding the set of legal protections, as Pistor, Raiser, and Gelfer (2000) have done, is worth considering. Whether this set should include protections for other stakeholders in the firm remains an open question. Theoretically, labor, management, and suppliers, like financiers, condition their willingness to provide resources on their expectations about whether the explicit and implicit promises exchanged for these investments will be fulfilled. But whether legal protections for these investments should be included is an empirical question—one that remains to be investigated.

For the judiciary, summary measures of efficiency, as viewed by participants in the system or commercial agencies, provide a strong signal, perhaps the best available. The historical evidence from industrial economies and the correlation between common law tradition and some efficiency measures suggests that such features as constitutions, the distribution of powers among branches of government at the federal level, the degree of decentralization of federal authority, and the degree of devolution of power and taxing authority to regional and local levels may matter.

There is ample scope for better measures. Pistor and Wellons (1998) provide some alternatives. In their study of law and Asian economic development, they collected information on the time it takes to resolve cases, the willingness to take cases to court, and the fraction of cases in which the ruling went against the sovereign. Also useful would be indicators showing what structural variables at the discretion of policymakers contributed to judicial efficiency.

In most developing economies efforts to develop information intermediaries with well-aligned incentives are likely to rely on intermediaries headquartered in other countries, create conditions to facilitate the entry of foreign intermediaries, or transform existing closed intermediaries, such as banks, so that they produce information for public purchase. Chang, Khanna, and Palepu (2000) use data on the extent and accuracy of analyst activity across the world to benchmark such activity. The incentives of such intermediaries will be determined by the quality of regulation of financial intermediaries and by product market competition among intermediaries.

A few observations flow from the complementarity of these institutions and the need to consider their interaction. That the depth of complementary institutions differs across countries suggests that efforts to devise a checklist of legal protections that should be introduced everywhere are misguided. While there may be a common set of legal protections to which countries can aspire, reforms of legal protections must take into account a country's existing institutions to be most effective. Where complementary institutions are inefficient, little should be expected from changes in legal protections. Scarce policy resources would be better directed to developing these complementary institutions or to improving governance through other approaches.

Creating Alternative Mechanisms to Facilitate Promise Fulfillment

For countries with weak legal protections, an alternative mechanism for facilitating promise fulfillment might be piggybacking on institutions in more developed markets. One approach that works by identifying domestic companies with well-functioning foreign networks is to have such companies cross-list their shares on foreign exchanges. Once identified with a foreign exchange, the firm is no longer anonymous. Foreign companies listing on U.S. stock exchanges, for example, are required to comply with international accounting standards and to increase their information disclosure. Equally important, the exchange presumably has the incentive to delist firms if they violate their commitments to the exchange—a costly outcome if firms value the option to raise future capital and have few other channels to international capital. By allying themselves with the exchange, firms thus strengthen beliefs about promise fulfillment.

Privatized firms have led the way in cross-listing, accounting for more than a third of the $233 billion raised through ADR programs from 1990 to 1999 (IMF 2000). Reese and Weisbach (2000) provide evidence that more broadly cross-listings have increased most among firms based in countries with weak legal protections. Johnson and Shleifer (1999) emphasize the growth of the Neuer Markt in Germany, a creation of the Frankfurt Stock Exchange with higher listing requirements that has served as the vehicle for many new listings of German and neighboring country companies.

While the early evidence is promising, there are limitations to this approach. It is of little help for resolving competing claims on the wealth generated by the firm; disputes are still resolved in the firms' home country courts, which tend to be inefficient. Moreover, questions arise about the penalty associated with delisting. This penalty is significant only if those controlling the firm value continued access to finance through that exchange and believe that delisting by one foreign exchange will reduce the possibility of listing on others. The fact that there are multiple exchanges—and little coordination among them—reduces the effectiveness of delisting as a penalty.

A second way forward is to foster domestic networks, such as business associations, that could increase the provision of information about firms and impose penalties on firms that violate promises when courts are arbitrary or unlikely to side with investors. Business associations are likely to be effective particularly if they require a large bond to join and if continued membership is valuable. In these circumstances, just knowing that a firm belongs to an association would strengthen investors' belief that the firm will uphold its promises.

But this approach, too, has limits. There are legitimate questions about whether associations have sufficient incentives to impose penalties on their members for noncompliance. In addition, firms with no interest in complying have incentives to pretend to comply—by forming a competing business association, for example. Where such mimicry is possible, and the real characteristics of a business association are known only in the long run, the prospects for such associations will be reduced. Moreover, reputation mechanisms are extremely sensitive to changes in future growth prospects. An economic shock that puts firms at risk exposes them to possible unrestrained looting.

Conclusion

Policymakers are right to concern themselves with systems of corporate governance. The evidence suggests that when the functions of a corporate governance system are not provided, or are provided at high cost, firms violate promises and resources for new investment projects dry up, slowing national growth and development.

I have suggested the importance of governance institutions emphasizing the centrality of legal protections, which shift power to investors in firms and lower the costs of resolving disputes over the wealth of corporations. But as the evidence I have presented shows, the effectiveness of legal protections depends on complementary institutions that provide incentives for enforcement and ensure the provision of information to investors. Thus reforms that focus only on legal rules have limits, and universal recommendations for governance reforms will inevitably be inadequate. Improving the effectiveness of legal protections requires changes to multiple institutions, with the emphasis depending on a country's institutional endowment.

I have also highlighted ownership structure, which becomes an important instrument for providing the functions of governance in countries with ineffective legal protections. Evidence for both established and privatized firms reveals systematic links between particular ownership structures and financial performance. Evidence also shows that insights on ownership structure from industrial economies do not easily translate to settings with ineffective protections.

Theory and practice suggest a great many possibilities for tying the "grabbing hands" of public and private actors in private sector firms. The place to start is to focus on the functions of corporate governance.

Notes

1. Caves (1989), for example, describes the modern analytical economic approach as one that "is treated by its practitioners as institution free, exposing the consequences of fundamental human motives and technological opportunities unclouded by any detritus of law, culture, language, custom, or history" (p. 1226).

2. This approach draws from the functional perspective to the financial system developed in Crane (1995).

3. My approach closely follows that of Williamson (1985) and particularly Zingales (1997). Zingales defines corporate governance as "the complex set of constraints that shape the ex post bargaining over the quasi-rents generated by the firm" (p. 499).

4. My focus on the security of the promises made to all investors in the firm is broader than the definition of Shleifer and Vishny (1997), for whom "corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment." (p. 737).

5. I borrow this phrase from Greif (1997), who emphasizes the importance of this difference in his analysis of medieval trade.

6. In the spirit of recent work by Greif (1997), I describe institutions as social factors (viewed as exogenous to investors in firms) that affect beliefs about transactions and produce regularities in behavior yet are endogenous to societal decisionmaking. Not all institutions of society are institutions of corporate governance. This label is reserved for institutions that are central to the governance transaction of investment in corporations.

7. I thank Rafael La Porta for encouraging me to explore this example in more detail and my colleague Tom McCraw for helpful clarifying discussions.

8. Among other factors, the SEC required a 20-day cooling-off period to scrutinize documents before issuing securities. It also had the power to place a stop order, which simply suspended the issue. This was a simple but powerful tool, as it shattered investor confidence in the issue whether or not the SEC was overturned on appeal.

9. In the community responsibility system, for example, investors know that they can demand payment from any member of that community, so they have little incentive to examine the capabilities of the controller of the investment or the viability of the proposed investment project. Bad projects will be pursued, and the community will be punished only after the fact.

10. The choice of countries reflects two restrictions: a country had to have five publicly traded companies without significant government ownership, and it could not be a formerly socialist country.

11. Regions used are eastern Europe, Baltics and the Commonwealth of Independent States. Growth data from IMF presented in Havrylyshyn and Wolf (1999).

References

Aghion, Phillipe, and Olivier Blanchard. 1996. "State Firms in the Transition: On Insider Privatization." *European Economic Review* 1 (1): 759–66.

Aoki, Masahiko. 1984. *The Cooperative Game Theory of the Firm*. Oxford: Oxford University Press.

Bebchuk, Lucian. 1999. "A Rent Protection Theory of Corporate Ownership and Control." NBER Working Paper 7203. National Bureau of Economic Research, Cambridge, Mass.

Becht, Marco, and Ailsa Roell. 1999. "Blockholdings in Europe: An International Comparison." *European Economic Review* 43 (4–6): 1049–56.

Berglöf, Erik, and Ernst Ludwig von Thadden. 1999. "The Changing Corporate Governance Paradigm: Implications for Transition and Developing Countries." In Boris Pleskovic and Joseph Stiglitz, eds., *Annual World Bank Conference on Development Economics* 1999. Washington, D.C.

Berle, Adolf, and Gardiner Means. 1933. *The Modern Corporation and Private Property*. New York: Macmillan.

Black, Bernard, Reinier Kraakman, and Anna Tarassova. 1999. "Russian Privatization and Corporate Governance: What Went Wrong?" *Stanford Law Review* 52 (July): 1731–1804.

Bolton, Patrick, and Ernst Ludwig von Thadden. 1998. "Blocks, Liquidity, and Corporate Control." *Journal of Finance* 53 (1): 1–25.

Caves, Richard. 1989. "International Differences in Industrial Organization." In R. Schmalansee and R.Willig, eds., *Handbook of Industrial Organization* 2. Amsterdam: North Holland.

Chang, J., Tarun Khanna, and Krishna Palepu. 2000. "Analyst Activity around the World." Harvard Business School, Cambridge, Mass.

Chhibber, Pradeep, and Sumit Majumdar. 1999. "Foreign Ownership and Profitability: Property Rights, Control, and the Performance of Firms in Indian Industry." *Journal of Law and Economics* 42 (1): 209–38.

Claessens, Stijn, and Simeon Djankov. 1999. "Ownership Concentration and Corporate Performance in the Czech Republic." *Journal of Comparative Economics* 27 (3): 498–513.

Claessens, Stijn, Simeon Djankov, and Larry H.P. Lang. 2000. "The Separation of Ownership and Control in East Asian Corporations." *Journal of Financial Economics* 58 (2): 498–513.

Coffee, John C., Jr. 1999. "The Future as History: The Prospects for Global Convergence in Corporate Governance and Its Implications." Working Paper 144. Columbia University School of Law, New York.

Cragg, Michael, and Alexander Dyck. 1999a. "Management Control and Privatization in the United Kingdom." *Rand Journal of Economics* 30 (3): 475–97.

———. 1999b. "Privatization and Management Incentives: Evidence from the United Kingdom." Harvard Business School, Cambridge, Mass.

Crane, Dwight, ed. 1995. *The Global Financial System: A Functional Perspective.* Boston, Mass.: Harvard Business School Press.

Demsetz, Harold, and Kenneth Lehn. 1985. "The Structure of Ownership: Causes and Consequences." *Journal of Political Economy* 93 (6): 1155–77.

Djankov, Simeon. 1999. "Ownership Structure and Enterprise Restructuring in Six Newly Independent States." *Comparative Economic Systems* 41 (1): 75–95.

Djankov, Simeon, and Peter Murrell. Forthcoming. "Enterprise Restructuring in Transition: A Quantitative Survey." *Journal of Economic Literature.*

Dyck, I. J. Alexander. 1997. "Privatization in Eastern Germany: Management Selection and Economic Transition." *American Economic Review* 87 (4): 565–97.

———. 2001. "Privatization and Corporate Governance: Principles, Evidence and Future Challenges." *World Bank Research Observer* 16 (spring): 59–84.

EBRD (European Bank for Reconstruction and Development). 1999. *Transition Report 1999.* London.

Frydman, Roman, Cheryl Gray, Marek Hessel, and Andrzej Rapaczynksi. 1999. "When Does Privatization Work? The Impact of Private Ownership on Corporate Performance in the Transition Economies." *Quarterly Journal of Economics* 114 (4): 1153–91.

Greif, Avner. 1997. "Informal Contract Enforcement: Lessons from Medieval Trade." In *The New Palgrave Dictionary of Economics and the Law.* London: Macmillan.

Hart, Oliver. 1995. *Firms, Contracts and Financial Structure.* Oxford: Oxford University Press.

Havrylyshyn, Oleh, and Thomas Wolf. 1999. "Growth in Transition Countries 1991–1998: The Main Lessons." Paper presented at the conference A Decade of Transition, International Monetary Fund, 1–3 February, Washington, D.C.

Hong, Harrison, Jeffrey Kubik, and Amit Solomon. 2000. "Security Analysts' Career Concenrns and Herding of Earnings Forecasts," *Rand Journal of Economics* 31 (1): 121–44.

Hoshi, Takeo, Anil Kashyap, and David Scharfstein. 1990. "The Role of Banks in Reducing the Costs of Financial Distress in Japan." *Journal of Financial Economics* 27 (1): 67–88.

IMF (International Monetary Fund). 2000. *International Capital Markets: Development, Prospects and Key Policy Issues.* Washington, D.C.

Jensen, M. C. 1991. "Eclipse of the Public Corporation." In D. A. Oesterle, ed., *The Law of Mergers, Acquisitions, and Reorganizations.* St. Paul, Minn.: West.

Johnson, Simon, and Andrei Shleifer. 1999. "Coase v. the Coasians: The Regulation and Development of Securities Markets in Poland and the Czech Republic." Harvard Institute of Economic Research Working Paper 1885. Cambridge, Mass.

Johnson, Simon, John McMillan, and Christopher Woodruff. 1999. "Contract Enforcement in Transition." Stanford Graduate School of Business Working Paper. Stanford, Calif.

Johnson, Simon, Peter Boone, Alasdair Breach, and Eric Friedman. Forthcoming. "Corporate Governance in the Asian Financial Crisis, 1997–1998." *Journal of Financial Economics* 58 (2): 141–86.

Johnson, Simon, Rafael La Porta, Florencio López-de-Silanes, and Andrei Shleifer. 2000. "Tunnelling." *American Economic Review* 90 (2): 22–27.

Kaplan, Steven. 1994. "Top Executives, Turnover and Firm Performance in Germany." *Journal of Law, Economics and Organization* 10 (1): 84–105.

Kaplan, Steven, and Bernadette Minton. 1994. "Appointments of Outsiders to Japanese Boards: Determinants and Implications for Managers." *Journal of Financial Economics* 36 (2): 225–58.

Khanna, Tarun. 2000. "Business Groups and Social Welfare in Emerging Markets: Existing Evidence and Unanswered Questions." *European Economic Review* 44: 748–61.

La Porta, Rafael, Florencio López-de-Silanes, and Andrei Shleifer. 1999. "Corporate Ownership around the World." *Journal of Finance* 54 (2): 471–517.

La Porta, Rafael, Florencio López-de-Silanes, Andrei Shleifer, and Robert W. Vishny. 1997. "Legal Determinants of External Finance." *Journal of Finance* 53 (1): 1131–50.

———. 1998. "Law and Finance." *Journal of Political Economy* 106 (6): 1113–50.

———. 1999a. "Investor Protection and Corporate Valuation." Harvard Institute of Economic Research Working Paper 1882. Cambridge, Mass.

———. 1999b. "Investor Protection: Origins, Consequences, Reform." Harvard University, Department of Economics, Cambridge, Mass.

———. 2000. "Agency Problems and Dividend Policies around the World." *Journal of Finance.* 55 (1): 1–33.

López-de-Silanes, Florencio. 1997. "Determinants of Privatization Prices." *Quarterly Journal of Economics* 112 (4): 965–1025.

McCraw, Thomas K. 1982. "With Consent of the Governed: SEC's Formative Years." *Journal of Policy Analysis and Management* 1 (3): 346–70.

McMillan, John, and Christopher Woodruff. 1998. "Interfirm Relationships and Informal Credit in Vietnam." University of California at San Diego, Department of Economics.

Megginson, William L., and Jeffrey M. Netter. Forthcoming. "From State to Market: A Survey of Empirical Studies on Privatization." *Journal of Economic Literature.*

Megginson, William L., Robert C. Nash, Jeffrey M. Netter, and Annette B. Poulsen. Forthcoming. "The Choice of Privatization: An Empirical Analysis." *Journal of Financial Economics.*

Merton, Robert C., and Zvi Bodie. 1995. "A Conceptual Framework for Analyzing the Financial Environment." In Crane and others, eds., *The Global Financial System: A Functional Perspective.* Boston: Harvard Business School Press.

Morck, Randall, Andrei Shleifer, and Robert Vishny. 1986. "Management Ownership and Market Valuation: An Empirical Analysis." *Journal of Financial Economics* 20: 293–315.

Nellis, John. 1996. "Finding Real Owners: Lessons from Estonia's Privatization Program." World Bank, Private Sector Development, Washington, D.C.

North, Douglass, and Barry Weingast. 1989. "The Evolution of Institutions Governing Public Choice in 17th-Century England." *Journal of Economic History* 49 (1): 803–32.

Olegario, Rowena. 1999. *Whom to Trust: The Dynamics of Business Lending in Nineteenth-Century America.* Ann Arbor: University of Michigan Business School.

Pistor, Katharina, and Phillip A. Wellons. 1998. *The Role of Law and Legal Institutions in Asian Economic Development.* Oxford: Oxford University Press.

Pistor, Katharina, Martin Raiser, and Stanislaw Gelfer. 2000. "Law and Finance in Transition Economies." *Economics of Transition* 8 (2): 325–68.

Rajan, Raghuram, and Luigi Zingales. 1998. "Financial Development and Growth." American Economic Review 88 (3): 559–86.

———. 2000. "The Great Reversals: The Politics of Financial Development in the 20th Century." University of Chicago, Graduate School of Business Administration, Chicago, Ill.

Reese, William, and Michael Weisbach. 2000. "Protection of Minority Shareholder Interests, Cross-Listings in the United States, and Subsequent Equity Offerings." Tulane University, Department of Economics, New Orleans, La.

Shleifer, Andrei, and Robert W. Vishny. 1997. "A Survey of Corporate Governance." *Journal of Finance* 52 (2): 737–83.

Weinstein, David, and Yishay Yafeh. 1998. "On the Costs of a Bank-Centered Financial System: Evidence from the Main Bank Relations in Japan." *Journal of Finance* 53 (2): 635–72.

Williamson, Oliver. 1985. *The Economic Institutions of Capitalism.* New York: Free Press.

Wurgler, Jeffrey. 2000. "Financial Markets and the Allocation of Capital." *Journal of Financial Economics* 58(1): 187–214.

Zingales, Luigi. 1997. "Corporate Governance." In *The Palgrave Dictionary of Economics and the Law.* New York: The Stockton Press.